CRITERION – I

CURRICULAR ASPECTS

1.1

CURRICULUM DESIGN AND DEVELOPMENT

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Department of Marathi 2022-23

U.G Outcomes

B.A.Part I Sem :I

Aksharbhandh Ani Upyojit Marathi(Opt)

Shabdh sanhita Ani upyoit Marathi (Com)

Programme Outcomes

After completion of the programme, the students will be able.

1)To understand Marathi literature.

2)To understand the creative process and nature of Story literature..

3)To get interest in reading Marathi literature.

B.A.Part I Sem :II

1)To develop communication skills in formal and informal Marathi.

2)To understand importance of language and propagate the language.

3)To get motivated to create literature through the understanding of various forms of Poem.

4)Prose, poetry and literary forms which are easy to understand are included in the curriculum.

B.A.II Sem :III

1)Prose, poetry and literary forms which are easy to understand are included in the curriculum.

To introduce the literary form of drama

CO – 2. Literary value and experimental value of drama as a literary form

Consciousness arises

CO – 3. Awakening awareness of contemporary social issues

CO – 4. Acquiring screenwriting skills

To get familiar with Marathi poetic traditions and trends

CO – 2 To explore the relationship between man and society as revealed in Marathi poetry

CO – 3 To study the value of artistic figures of poetry

CO – 4 Special study of poetry according to poetic stream

CO – 5 To inculcate poetry writing skills through demonstration

B.A.II Sem :IV-P-5

1 To introduce the literary form of autobiography

Successfully in Foreign Service through CO – 2 Competitive Examinations

Introducing the personality of the accomplished author

CO – 3 Awakening awareness of contemporary social issues

CO – 4 Acquiring skills in autobiographical writing

B.A.II Sem :IV-P-6

1 Introduction to the Novel Dramatic Genre

CO – 2 Exploring the New Space in the Contemporary Novel and Understanding the Contradictions of Modernity

CO – 3 To create awareness about human values

CO – 4 Special study of novel writing

B.A.III Sem :V-P-7-12

1 To understand the nature of Eastern, Western and Modern Indian Literature

2 To understand the nature of fine and non-fine literature

3 To understand literary purposes

4 To understand and understand the process of creation of literature

5 Understanding grammar

B.A.III Sem :V-P-8-13

1 To study etymology.

2. Introduction to Linguistics

3. To know the correlation between linguistics and Marathi language

4. To introduce self-thinking, form-thinking and sentence-thinking

5. To develop students' interest in Marathi language

B.A.III Sem :V-P-9-14

1 A Chronological Study of Medieval Marathi Vadmaya

2 To give a rough introduction to Medieval Marathi Vadmaya

3 To study the nature and characteristics of medieval Marathi Vadmaya

4 To give a rough introduction to the important authors and texts of medieval Marathi literature

5 A Special Study of Prose Verse Composition of Medieval Marathi Vadmaya

B.A.III Sem :V-P-10-15

Understanding the creative writing process.

2. To study the nature of conceptual writing.

3. To understand research paper and project writing skills.

4. To study Marathi writing method on internet

B.A.III Sem :V-P-11-16

1 Introduction to Medieval Maharashtra and Mahanubhava Panth

2 To understand the inspiration and nature of Mahanubhava literature

3 To introduce the great writer Kesobas

4 Special study of the content form and expression in the vision lesson

5 Introduction to the linguistic splendor of parables

Programmes Specific Outcomes (PSOs)

Marathi language writing and reading skills will be developed. •

• PSO 1 : Equip students with knowledge of Marathi as a Regional language .

• PSO 2 :Develop ability of reading and writing skills.

• PSO 3: Create awareness to analyze historical and current literary forms in Marathi literature.

• PSO 4 : Equip students with analytical skills in linguistics ,communications and literary criticism

• PSO 5 :Train students for careers and advanced studies in wide range of Marathi language and literature.

• PSO 6 :The ability to read texts closely and to articulate the value of close reading in the study of
literature and rhetoric .

• PSO 7: Increasing in-depth knowledge of the Core Areas of the Subject.

PSO8 Creating an interest in literature.

PSO9. Availing the job opportunities in translation, transformation and media.

PSO10. Increasing the critical attitude about literary studies. e. Imbuing the literary research attitude.

Course Outcomes (COs)

COs1 Understanding the interrelation between literature and society.

COs2. Explaining the nature of language and literature.

COs3. Obtaining the skills of literary criticism.

COs4. Imbuing the essay writing skills.

COs5. Illustrating the nature of literary forms like one-act-play, travelogue and short story.

COs.6. Introduction of the medieval Marathi language and literature.

COs.7. Introduction of the contemporary literary works.

COs.8. Explanation of the need and significance of editing.

COS.9. Creating the skill of critical appreciation of a poem.

Cos10. Developing the poetic devices and their usages.

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Department of Marathi 2021-22

P. G.

Programme Outcome

Course : M.A. I

Marathi paper : 1- Bhashik Avishkarachi Rupe

5- Sahitya Prakarancha Sukshm Vichar

po

After completion of the programme, the students will be able.

- To get motivated to create literature through the understanding of various forms of literature.
- poS
- Some components of curriculum are irrelevant as well as often repeated. Hence, such topics are dropped from the curriculum.
- Prose, poetry and literary forms which are easy to understand are included in the curriculum.

Marathi paper : 2.1 – Vishesh Sahityakrutincha Abhyas

6.1 - Vishesh Sahityakrutincha Abhyas

PO

After completion of the programme, the students will be able.

- To motivate them to be an alert citizens through the Matathi literature.

COs

- Some components of curriculum are irrelevant as well as often repeated. Hence, such topics are dropped from the curriculum.

- Prose, poetry and literary forms which are easy to understand are included in the curriculum.

Marathi paper : 3 – Aadhunik Marathi Vangamayacha Itihas (Swatantrapurv Kal)
7 - Aadhunik Marathi Vangamayacha Itihas (Swatantryottar Kal 2000 paryant)

PO

After completion of the programme, the students will be able.

- To develop social consciousness through the reading of contemporary literature.

COs

- Some components of curriculum are irrelevant as well as often repeated. Hence, such topics are dropped from the curriculum.
- Prose, poetry and literary forms which are easy to understand are included in the curriculum.

Marathi paper : 4.2 – Loksahitya va Lokkala
8.2 - Loksahitya va Lokkala

PO

After completion of the programme, the students will be able.

- Become aware of outdated folk arts.

COs

- Some components of curriculum are irrelevant as well as often repeated. Hence, such topics are dropped from the curriculum.

- Prose, poetry and literary forms which are easy to understand are included in the curriculum.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

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B.A. (ENGLISH) Programme Outcomes

A student, who has taken admission into this program of B.A with English as specific subject of study, is expected to target on following outcomes.

a. Students will be able to acquire basic knowledge of English as language.

b. Students will be able to acquire deep knowledge of English as Literature.

c. Students will be able to get basic knowledge of English Grammar.

d. Students will be able to study critical study of English Literary studies.

e. Students will be able to get acquire relation between pleasure of literature and real life.

M.A English Program Outcomes

Program Outcomes:

1) Students will be able to appreciate literary/linguistic developments of different countries and different periods.
2) Students will comprehend major trends, movements and '-isms' and different critical/linguistic approaches.
3) Students will develop acumen to appreciate, interpret and critically evaluate prescribed texts.
4) Students will be able to interpret, analyze and evaluate different varieties of written and spoken English.
5) Students will be able to analyze unseen poem and prose stylistically.

Students will learn different approaches to syllabus design and methods of teaching.

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B.A.-I, B.A.-II (English) Course Outcomes

At the end of the course Students will be able to learn:

1. Oral and written skills
2. Interview Techniques
3. Presentation skills
4. Listening skills
5. Comprehension skills
6. Critical Thinking and problem solving
7. Personal and professional competence

B.A.-I, B.A.-II & B.A.-III (Optional & special English) Course Outcomes

1. Enjoyment of literature
2. Pleasure of literacy forms such as novel, pōem, play, and essay.
3. Critical understanding of literature.
4. Relation between literature and real life.
5. Emotional development of human mind.

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B.A English Program Specific Outcomes

At the end of this programme the student will be able to acquire:

1. Academic competence
2. Personal and professional competence
3. Basic research competence
4. Social Competence

M.A English Program Specific Outcomes

Program Specific Outcomes:

- The student will be well versed with the major literary trends and movements and schools of criticism.
- The student will be acquainted with various schools of linguistics and applied linguistics.
- The student will be familiar with research practices in language and literature.
- The student will compose a dissertation based on approved research topic.

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B. A. Part III English

Semester V: Paper E: English for Communication (Compulsory English)

Course outcomes: After completing this course, the learners will be able to:

CO1: Express their views
CO2: Use the basic and correct structures of grammar
CO3: Express thoughts and opinions in good ways of communication
CO4: Identify types of sentence construction
CO5: Express their views in group discussion and personal interview
CO6: Use English for competitive examinations
CO7: Use English language for journalism and media.
CO8: Prepare notes on various topics

Semester V: Paper VII: English (Special) Introduction to Literary Criticism ENGS7)

Course outcomes: After completing this course, the learner will be able to:

CO1: Identify the literary and critical terms
CO2: Define the major literary terms
CO3: Analyze the major trends and movements in literary criticism
CO4: Appreciate the unseen poems critically
CO5: Study the original contributions made in the field of literary criticism
CO6: Write research paper/article

Semester V: Paper VIII: English (Special): English Poetry–ENGS8

Course Outcomes

After completing this course, the learners will be able to:

CO1: Identify English lyrical types
CO2: Interpret poetry at structural and semantic level
CO3: Identify poetic devices used in poetry
CO4: Recognize the poet's skill of composition
CO5: Recite English poems
CO6: Appreciate the poems critically

Semester V: Paper IX: English (Special):English Drama-ENGS9

Course Outcomes: After completing this course, the learners will be able to:

CO1: Identify elements of drama
CO2: Explain thematic elements expressed in drama
CO3: Identify and classify the types of dramas
CO4: Compare and contrast different dramatic techniques
CO5: Enact/ retell the story individually

Semester V: Paper X: English (Special):English Novel–ENGS10

Course Outcomes

After completing this course, the learners will be able to:

CO1: Explain elements of novel
CO2: Identify various ways of expressing thoughts/opinions/approaches
CO3: State the types of novel
CO4: Describe rise and development of Novel
CO5: Compare feelings and tempers
CO6: Review novel
CO7: Apply different types of narration
CO8: Produce self-analysis of the novel
CO9: Write short narrative piece in English

Semester V: Paper XI: English (Special) LANGUAGE AND LINGUISTICS (ENGS11)

Course outcomes: After completing this course, the learner will be able to:

CO1: Describe the structure and function of English as a language
CO 2: Define the concept of formal and informal language
CO 3: Analyze the different levels of study of the English language
CO 4: Identify elements and types of clauses and phrases
CO 5: Differentiate the various ways of structuring sentences
CO 6:Relate linguistics level and the objects
CO 7:Enrich/ improvise the pronunciation
CO 8: Identify and state the form and function of words

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Course Outcomes: MA II, English

CO1. Identify various trends in drama

CO2. Explain development of drama

CO3. Interpret drama with its literary, social and political background

CO4. Recognize the potential of enactment of dramas.

Course Outcomes:

CO1. Explain major concepts in critical theories

CO2. Describe major critics and their works

CO3. Analyze critical theories

CO4. Apply various theories.

Course Outcomes:

CO1.Outline Australian and Canadian literature

CO2.Examine socio-cultural aspects of Australia and Canada

CO3.Relate human values and literature

CO4.Plan writing and presentation

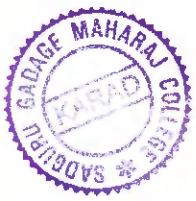
Course Outcomes:

CO1.Outline African, Caribbean, Canadian and Indian literature

CO2.Examine the writings of the postcolonial women writers.

CO3.Relate human values and literature

CO4.Plan writing and presentation



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S. G. M. COLLEGE, KARAD

"A Short Term Course in Speak Well English"

(2022-23)

Course Outcomes

1. After having completed this course the students are able to speak situational English with better pronunciation and confidence.

2. 61 students have passed this certificate course.

3. 05 students are successfully placed in reputed firms such as Infosys and TATA Consultancy Services.

B.Sc. Part I – Ability Enhancement Compulsory Course (AECC A)
(Compulsory English) (CBCS)
English for Communication

Course Outcomes:

1. Students will be acquainted with communication skills.
2. Human values will be inculcated among the students through poems and prose.
3. Language and business competence of the students will be improved.

B.Sc. III

English for Communication (Compulsory English)

Course outcomes:

MODULE I A. After completion of the unit students are able to-

1. Demonstrate confidence in oral communication
2. Develop skills required to crack the interview.

B. After completion of the unit students are able to

1. Illustrate the poet's point of view in the poem
2. Analyse the theme of the poem

MODULE II

A. After completion of the unit students are able to-

1. Define E-Communication
2. Utilize various forms of E-communication in effective manner.

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B. After completion of the unit students are able to-

1. Identify different Etiquettes and Manners.
2. Comment on benefits of etiquettes and manners

MODULE III

A. After completion of the unit students are able to-

1. Organize a paragraph
2. Develop effective letter writing, report writing and blog writing skills

B. After completion of the unit students are able to-

1. Identify the problem solving skills
2. Analyze the phrasal verbs and idiomatic expressions

MODULE IV

A. i. After completion of the unit students are able to-

1. Recall the History and its benefits
2. Analyze

Forgetting Our Own History – Sudha Murty:-The students will memorize and discuss the history of nation.

ii. After completion of the unit students are able to- The Butterfly – Arun Kolatkar:- The students will describe the concept of happy and meaningful life.

iii. After completion of the unit students are able to- For Your Lanes, My Country –

-Faiz Ahmed Faiz:- The students will implement the value and respect others views and develop democratic attitude

B.Com. Part I – Ability Enhancement Compulsory Course (AECC 1)
(Compulsory Euglish) (CBCS)
English for Business Communication

Course Outcomes:

1. Students will be acquainted with communication skills.
2. Human values will be inculcated among the students through poems and prose.
3. Language and business competence of the students will be improved.

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Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2022-2023

PROGRAMME SPECIFIC OUTCOMES

B.A. I

❖ **B.A. Hindi Programme Specific Outcomes :-**

1. छात्रों की सामाजिक नैतिकता विकसित करने के लिए कहानियों के माध्यम से लोगों के बीच सामाजिक संबंधों के बारे में जानकारी मिलती है।
2. छात्रों को शिक्षा प्रणाली के बारे में जानकारी मिलती है और वे हिंदी भाषा में साहित्य पढ़कर दहेज प्रथा और समाज में अनेक समस्याओं को रोकने के लिए बढ़ावा देते हैं।
3. पाठ्यक्रम के छात्र हिंदी के बारे में जानते हैं कविता, आधुनिक कविता भी जानते हैं कि यह मानव मूल्य, सामाजिक प्रतिबद्धता देता है। ये कविताएँ छात्रों में संवेदनशीलता विकसित करने और मानवता का विकास करने के लिए भी बढ़ावा देती हैं।
4. छात्र नई रचनाओं जैसे डायरी और प्रसिद्ध लेखकों के पत्र को जानते है।

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SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2021-2022

PROGRAMME OUTCOMES

B.A.

❖ **B.A. Hindi Programme Outcomes :-**

1. छात्र सामाजिक विज्ञान, साहित्य और मानविकी के क्षेत्र में ज्ञान प्राप्त करते हैं जो उन्हें संवेदनशील और समझदार बनाता है।
2. बी.ए. स्नातक सामाजिक, आर्थिक, ऐतिहासिक, भौगोलिक, राजनीतिक, वैचारिक और दार्शनिक परंपरा और सोच से परिचित होंगे।
3. स्नातकों को विभिन्न प्रतियोगी परीक्षाओं के लिए उपस्थित होने या अपनी पसंद के स्नातकोत्तर कार्यक्रम का चयन करते का अधिकार भी देता है।
4. छात्रों को साहस और मानवता के साथ जीवन में विभिन्न समस्याओं से निपटने के लिए आधार तैयार करने वाले मानवीय मूल्यों के साथ ज्ञान प्राप्त करने में सक्षम बनाता है।
5. छात्रों को इस दुनिया को पहले से बेहतर बनाने के लिए मानव जीवन में व्याप्त विभिन्न मुद्दों के समाधान के लिए सोचने और कार्य करने के लिए पर्याप्त प्रज्वलित किया जाएगा।
6. जिम्मेदार नागरिक होने के लिए आधार प्रदान करता है।

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SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2021-2022

COURSE OUT COMES

B.A.

❖ **Course Out Comes :-**

- **बी. ए भाग 1- आवश्यक हिंदी- पेपर क्र. A सृजनात्मक लेखन**

1. वाणिज्य विषयक पत्राचार का परिचय प्राप्त हुआ।
2. रिपोर्ताज तथा साक्षात्कार लेखन की क्षमता प्राप्त हुई ।
3. वृत्तांत लेखन तथा निबंध का परिचय प्राप्त हुआ।
4. हिंदी भाषा तथा व्याकरण का ज्ञान प्राप्त किया।

बी. ए भाग 1- आवश्यक हिंदी- पेपर क्र. B व्यावहारिक लेखन

1. **हिंदी के विविध रुपों का परिचय प्राप्त किया।**
2. **पत्राचार का स्वरूप तथा प्रकारों का परिचय प्राप्त किया।**
3. **अनुवाद और विज्ञापन लेखन से परिचित हुए।**
4. **समाचार लेखन और पत्रकारिता का परिचय प्राप्त हुआ।**

- **बी. ए भाग 1- एच्छिक पेपर – 1 हिंदी कविता**

1. आधुनिक हिंदी कवियों के काव्य का परिचय प्राप्त किया।
2. मानवीय मूल्यों का ज्ञान प्राप्त किया।
3. काव्य सृजन से प्रेरित हुए।
4. अनुवाद कार्य से प्रत्यक्ष रोजगार की संभावनाएँ निर्माण हुई।

बी. ए भाग 1- एच्छिक पेपर – 2 हिंदी गदय साहित्य

1. **आधुनिक गद्य विधाओं का परिचय प्राप्त किया।**
2. **हिंदी भाषा के श्रवण, पठन एवं लेखन की क्षमता का विकास हुआ।**
3. **कहानी तथा निबंध लेखन की प्रेरणा प्राप्त हुई।**
4. **संप्रेषण कौशल विकसित हुआ।**

- **बी. ए भाग 2 प्रश्नपत्र -3 : अस्मितामूलक विमर्श और हिंदी गद्य साहित्य**

1. कथा साहित्य के स्वरूप,तत्व और प्रकार का परिचय प्राप्त हुआ।
2. विधांतरण की प्रक्रिया से परिचित हुए।
3. कथेतर साहित्य का समीक्षात्मक अध्ययन हुआ।
4. कथा और कथेतर साहित्य का प्रासंगिकता के साथ अध्ययन हुआ।

बी. ए भाग 2 प्रश्नपत्र -5 : रोजगारपरक हिंदी

1. हिंदी का प्रयोजनमूलक पक्ष के अंतर्गत गणितीय अंको से परिचय प्राप्त हुआ |
2. जीवन व्यवहार में प्रयुक्त अंग्रेजी शब्दों के लिए हिंदी पर्यायवाची शब्द से
3. परिचय प्राप्त हुआ |
4. हिंदी भाषा के अध्ययन से प्राप्त होनेवाले रोजगार के क्षेत्रों की जानकारी मिली |
5. हिंदी भाषा में किए जानेवाले कार्यालयीन पत्राचार से परिचय हुआ |
6. जीवन व्यवहार में प्रयुक्त हिंदी भाषा का ज्ञान प्राप्त हुआ |
7. अनुवाद कार्य की प्रविधि अवगत हुई |

बी. ए भाग 2 प्रश्नपत्र -4 : **हिंदी संतकाव्य तथा राष्ट्रीय काव्यधारा**

1. मध्यकालीन हिंदी कवियों का परिचय प्राप्त हुआ |
2. भक्ति की विभिन्न धाराओं का परिचय प्राप्त हुआ |
3. आधुनिक हिंदी कविता का परिचय प्राप्त हुआ |
4. गीत लेखन का कौशल प्राप्त हुआ

बी. ए भाग 2 प्रश्नपत्र -6 : अस्मितामूलक विमर्श और हिंदी पद्य साहित्य

1. काव्य के विभिन्न भेद एवं खंडकाव्य का परिचय प्राप्त हुआ |
2. खंडकाव्य के तत्वों का परिचय प्राप्त हुआ |
3. ममता कालिया जी के व्यक्तित्व एवं कृतित्व का परिचय प्राप्त हुआ
4. प्रबंध काव्य के मंचन की प्रक्रिया से परिचित हुए |

- **बी. ए भाग 3 पेपर क्र. 7 और 12** – विधा विशेष का अध्ययन
    1. उपन्यास और नाटक के स्वरूप का परिचय कराना |
    2. उपन्यासकार और नाटककार का जीवन परिचय कराना |
- **बी. ए भाग 3 पेपर क्र. 8 और 13** – साहित्यशास्त्र /साहित्यशास्त्र और हिंदी आलोचना
    1. काव्य के विभिन्न अंगो का परिचय करना |
    2. साहित्य सामिक्षा की दृष्टि विकसित करना |
    3. भारतीय तथा पाश्चात्य समीक्षा सिद्धांत तथा हिंदी आलोचना की विविध प्रणालियो का ज्ञान करना |

- **बी. ए भाग 3 पेपर क्र. 9 और 14** – हिंदी साहित्य का इतिहास
    1. हिंदी साहित्य के इतिहास को जानना |
    2. हिंदी साहित्य कि विविध विधाए तथा उनके विकास को जानना |
    3. कबीर, जायसि, तुलसीदास, सूरदास जैसे संत कवियो के विचारो को जानना |

- बी. ए भाग 3 पेपर क्र. 10 और 15 – प्रयोजनमूलक हिंदी
    1. संचार माध्यम संबंधि अंग्रेजी शब्दो के हिंदी पर्यायवाची रूपो को जनना।
    2. अनुवाद तथा विज्ञापन का महत्व जनना ।
    3. मुद्रित तथा एलेकट्रोनिक जनसंचार के मध्यामो से परिचय करना।
- बी. ए भाग 3 पेपर क्र. 11 और 16 – भाषा विज्ञान एवं हिंदी भाषा
    1. भाषा के विविध रूपो का परिचय करना।
    2. भाषा विज्ञान का सामान्य परिचय करना।
    3. हिंदी भाषा और लिपि के उद्भव और विकास का परिचय करना।

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2021-2022

PROGRAMME SPECIFIC OUTCOMES

M.A.

❖ **M.A. Hindi Programme Specific Outcomes :-**

1 आधुनिक काल में रचित हिंदी कविता कि विविध प्रवृतियो को महत्वपूर्ण कवियों और कविताओ द्वारा समझाना

2 आधुनिक काल में रचित विविध गद्य विधाओं का आलोचानात्मक अध्ययन

3 १०५० से अब तक रचित हिंदी साहित्य का इतिहास कि विविध सोपनो के माध्यम से ज्ञात होना

4 भाषा एवं भाषा विज्ञान, कोश विज्ञान, लिपि कि वैज्ञानिकता कि जानकारी प्रदान करना

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2021-2022

PROGRAMME OUTCOMES

M.A.

❖ **M.A. Hindi Programme Outcomes :-**

1. छात्र सामाजिक विज्ञान, साहित्य और के क्षेत्र में गहन ज्ञान प्राप्त करते हैं ।मानवता जो उन्हें संवेदनशील और समझदार बनाती है ताकि वे संबंधित मुद्दों को हल कर सकें
2. स्नातकोत्तर सामाजिक, आर्थिक, ऐतिहासिक, भौगोलिक से परिचित होंगे, राजनीतिक, वैचारिक और दार्शनिक परंपरा और उनके संबंधित विषयों की सोच।
3. विभिन्न प्रतिस्पर्धी के लिए पोस्ट-ग्रेजुएट्स को प्रदर्शित करने का अधिकार भी देता है ।परीक्षा या अपनी पसंद के किसी भी स्नातकोत्तर या अनुसंधान कार्यक्रम का चयन करते है।
4. छात्रों को मानवीय मूल्यों के साथ ज्ञान प्राप्त करने में सक्षम बनाता है ।आधार साहस और मानवता के साथ जीवन में विभिन्न समस्याओं से निपटने के लिए।
5. छात्रों को विशेष पीजी के ज्ञान के माध्यम से पर्याप्त प्रज्वलित किया जाएगा ।इस दुनिया को बनाने के लिए मानव जीवन में व्याप्त विभिन्न मुद्दों के समाधान के लिए सोचें और कार्य करें ।पहले से कहीं ज्यादा बेहतर।
6. छात्रों को उनके संबंधित में अनुसंधान के बारे में पता चल जाएगा ।विषय यह डेटा, पूछताछ, प्राथमिक के संग्रह के लिए छात्रों को जानकारी भी प्रदान कर सकता है और डेटा के संग्रह, वर्गीकरण और डेटा के सारणीकरण के द्वितीयक तरीके। छात्रों को मिलता है ।विभिन्न अनुसंधान विधियों का ज्ञान और खोजने के लिए अनुसंधान के महत्व को महसूस कर सकते हैं।

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Hindi Department

2021-2022

COURSE OUT COMES

M.A.

- एम. ए भाग 1 पेपर क्र 1 और 5 - प्राचीन तथा निर्गण भक्तिकाव्य
    1. प्राचीन हिंदी रचनाओं का स्थूल या सूक्ष्म अध्ययन कराना।
    2. निर्गुण भक्तिकाव्य से परिचय कराना।
    3. पृथ्वीराज रासो, अमीर खुसरो, कबीर तथा पद्मावत का अध्ययन कराना।
    4. सगुन और रीतिकाल का परिचय कराना।
    5. भ्रमरगीत, रामचरितमानस, रीतिकाव्यधारा - कवि बिहारी रहीम ग्रंथावली का सूक्ष्म अध्ययन कराना।

- एम. ए भाग 1 पेपर क्र 2 और 6 – हिंदी साहित्य का इतिहास

    1. इतिहास का संबंध अतीत से होता है और इसमें वास्तविक घटनाओं और वृतांतो का संनिवेश होता है
    2. इतिहास दर्शन काल के माध्यम से संस्कृति का अध्यन करता है
    3. इतिहास मानवीय सारोकरो की व्याख्या करने वाली विधा है जो अतीत के संदर्भो से आगत को प्रभावित करती है
    4. आदिकाल से आधुनिक काल तक क्रमबध रूप में विद्यार्थीओं को जानकारी देना

- एम. ए भाग 1 पेपर क्र 3 और 7 – भाषा विज्ञान
    1. भाषा एवं भाषा विज्ञान कि परिभाषा एवं स्वरूप कि सैधान्तिक जानकारी देना।
    2. भाषा के विभिन्न रूपों से परिचित कराना।
    3. स्वन विज्ञान, रूप विज्ञान, वाक्य विज्ञान, अर्थ विज्ञान, की सैधन्तिक जानकारी देना।
    4. हिंदी भाषा का इतिहास एवं विकास क्रम का ज्ञान करना।

- एम. ए भाग 1 पेपर क्र 4 और 8 – अनुवाद प्रौद्योगिकी
    1. अनुवाद का स्वरूप एवं तत्वों का परिचय प्राप्त किया।
    2. अनुवाद प्रविधि का ज्ञान प्राप्त किया।
    3. अनुवाद की उपयोगिता का ज्ञान प्राप्त हुआ।
    4. अनुवाद की सामाजिक उपादेयता से परिचित हुए।

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
Dept. of Hindi,
Sadguru Gadage Maharaj College
Karad (Vidyanagar-415124) Maharashtra

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College,Karad (Autonomous)

Syllabus

Choice Based Credit System

B.A Part I

Department of Sanskrit

Course Outcomes (CO's)

Course Outcomes :

1. Being basic treasure of knowledge by learning Vedas students will learn the ancient Indian wisdom encoded in Vedas.
2. Students will be enriched with all-encompassing idea of development and fulfillment of quest of knowledge in Indian Knowledge system.
3. Students will learn text of Ramayana, get idea of ancient Indian cultural and social enrichment an also understand Socio-cultural growth of that era.
4. Students will be enriched by learning Mahabharata having multi-dimensional plot discussing politics, philosophy, dharma, psychology, morality and many other such aspects
5. Students will enter into Sanskrit through simple and popular stories.
6. Students will learn language through natural process of second language acquisition.
7. Students will easily learn Sanskrit through simple poetry having metric and rhythmic composition.
8. Students will learn moral values from Niti Text.
9. Students will learn Kalidasa's work which is appreciated by renowned poets.
10. Students will perform practical exercises, as well as basic reading; speaking and creative writing ability amongst the students will be enhanced.
11. Students will learn Kiratarjuniyam as a composition of Bharavi.
12. Students will learn composition of Magha, convey political advisory
13. Students will learn the origin and development of Drama as a creative and communicative literary expression
14. Students will learn one poet in detail with his work and biography.
15. One work of concerned poet will be studied by students in detail.
16. Students will learn characteristics of Drama standardised so far in Sanskrit literature

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Head of the Dept. (Sanskrut)
S. G. M. College, Karad

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaja College, Karad (Autonomous)

B.A Part I

Department of Sanskrit

Programmes Outcomes (POS)

1) Developing reading, writing, speaking and listing skills.
2) Availing the job opportunities in translation.
3) Increasing the critical attitude about literary writing.
4) Creating an interest in literature.
5) Imbuing the literary research attitude.

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Rayat Shikshan Sanstha's

Sadguru Gadage Maharaja College, Karad (Autonomous)

B.A Part I

Department of Sanskrit

Programmes Specific Outcomes (PSO's)

Out Comes:

1) Student to be strong speaking skills, self development, self image, attitude and aptitude etc.
2) To develop communication skills among students.
3) To teach use of Sanskrit advance knowledge in daily life.
4) To student competent and self development. Make a strong mentally.
5) To use of Sanskrit communication skills in daily life.
6) To help the solving Sanskrit Language problem of the Middle School Students
7) To motivate for live free stressful life.
8) To make Good Concentration for all Studies.

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Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(Autonomous)

Department of History

2022-23

BA

PROGRAMME OUTCOME

After successfully completing this course the student are expected to imbue with following quality which help them in their future life to achieve the expected goals.

PO1 Realization of human values and Ethics.

PO2 Development of Indian historical culture.

PO3 Sense of social awareness and social Movement in Ancient to till today.

PO4 Creating critical approach towards socio-economic and cultural problems.

PO 5 Created innovative sense in their specialized discipline.

PO6 Developing awareness about historical monuments.

PO7 Gained historical analytical ability.

PO8 This Programme has been designed to impart knowledge of the methods of history to the students.

PO9 They will learn about deep and and sophisticated consciousness of history embedded in the various traditions of history writing in India.

PO10 It will impart knowledge of fundamentals of digital history to the students which will help them to incorporate digital technologies and methods in their research and teaching.

PROGRAMME SPECIFIC OUTCOME

After completion of this programme students will be able to: -

PSO 1: Knowledge of multiple perspectives through which significant developments in the history of the Indian subcontinent from earliest times up to the period after independence.

PSO 2: Familiarity with the significant patterns of development in eertain parts of the modern and early modern world as well as certain non-Indian ancient societies.

PSO 3: Ability to carefully read a complex historical narrative, evaluates its deployment of evidence, and understands its argument as well as critically analyze.

PSO 4: Ability to identify patterns of change and continuity with regards to issues of contemporary significance over long durations as well as across diverse geo-cultural zones

PSO 5: Greater ability to distinguish between that which is historical that is time-place context driven, hence changeable and challengeable.

PSO 6: Sensitivity to gender and social inequities as well as acquaintance with the historical trajectories of these issues

PSO 7: Capability to assume leadership roles and apply the above mentioned analytical abilities in various other non-familiar contexts.

PSO 8: Possess knowledge of the values and beliefs of multiple cultures so as to effectively engage in a multi-cultural society and interact with diverse groups.

Course Outcomes

B. A. Part I SEM: I

HIS022-1: Rise of Maratha Power (1600- 1707)

1. The students should understand the Background of rise of the Maratha Power
2. This paper helpful for the understanding of the Political Movement of Chhatrapati ShivajiMaharaj
3. The students understand the importance of the coronation of the Chhatrapati Shivaji Maharaj

BA I SEM : II

HISO22-2 : Polity, Society and Economy under the Maratha (1600-1707)

1. Understanding of Administrative system during Maratha Period.
2. Creation of Awareness regarding the preservation of Historical Monuments.
3. Understanding of Chhatrapati Shivaji Maharaj' Policy About peasant, religion and women
4. Understanding of welfare policy implemented by Chhatrapati Shivaji Maharaj

B. A. Part I History IDS SEM: I

STD22- 1 : Science Technology & Development (STD)

1. Understanding of latest concepts in Science Technology and Development
2. Acquaintance with Contribution of Eminent Scientist
3. Understanding of non-conventional power resources of India
4. Familiarity with Science Technology and Human Health

B. A. Part I History IDS SEM: II

STD22-02 : Science Technology & Development

1. Understanding of Disaster Management
2. Acquaintance with Communication and Information Technology
3. Understanding of Information Technology, Space Research
4. Familiarity with Science, Technology in Indian Defense and agriculture

BA II SEM III

HISO3 History of Modern Maharashtra (1900 To 1960)

1. Understand the beginnings and growth of nationalist consciousness in Maharashtra
2. Explain the contribution of Maharashtra to the national movement
3. Give an account of various movements of the peasants, workers, women and backward classes

4. Know the background and events which led to the formation of separate state of Maharashtra.

HISO4 History of India (1757-1857)

1. Acquaint himself with significant events leading to establishment of the rule of East India Company

2. Know the colonial policy adopted by the company to consolidate its rule in India

3. Understand the structural changes initiated by colonial rule in Indian economy.

4. Explain the various revolts against rule of the East India Company.

HISO5 History of Modern Maharashtra (1960-2000)

CO1. Acquaint himself with the contribution of eminent leaders of Maharashtra

CO2. Know about the economic transformation of Maharashtra

CO3. Understand the salient features of changes in society

CO4. Explain the growth of education

HISO6 History of Freedom Struggle (1858-1947)

CO1. Understand the events which lead to the growth of nationalism in India

CO2. Acquaint himself with major events of the freedom struggle under the leadership of Mahatma Gandhi

CO3. Explain the contribution of Revolutionaries, Left Movement and Indian National Army

CO4. Know the concept of Communalism and the causes and effects of the partition of India

BA II SEM III IDS PAPERS

HSRI –I Social Reforms in India

CO1. Understand the salient features of prominent socio-religious reform movements

CO2. Explain the thought and work of Mahatma Phule for radical transformation of Indian society

CO3. Know the measures taken by Rajashri Shah Maharaj for emancipation of lower classes and women

CO4. Understand the thoughts of Ambedkar on the annihilation of the caste system and untouchability in India

CO5. Know how the Indian constitution embodies the values of social justice and equality

AIHC-01 : ANCIENT INDIAN HISTORY & CULTURE (IDS) – PAPER- I

CO1. Acquire knowledge regarding the primitive life and cultural status of the people of ancient India.

CO2. Gather knowledge about the society, culture, religion and political history of ancient India as well.

CO3. To make students understand the chronological development of Ancient Indian History and Culture.

CO4. To make students understand the development of Indian people right from hunters to Second urbanization and to make student aware with the Religion-philosophy.

BA : II SEM : IV

HSRM-II Social Reforms in Maharashtra

CO1. Know about the beginnings of social reforms in Maharashtra by the Paramhansa Mandali and Prarthana Samaj.

CO2. Understand the contribution of women reformers

CO3. Explain the contribution of Social reformers in the fight for social justice

CO4. Explain the role played by educational reforms in transformation of society.

AIHC- II : ANCIENT INDIAN HISTORY & CULTURE (IDS) – PAPER- II

CO1. To Learn Emergence and growth of earlier dynasties like Maurya, Gupta and the empires in Post Maurya period as well as in Post Gupta period.

CO2.Highlight the consequences of the foreign invasions, particularly on the polity, economy, society and art and architecture.

CO3 To understand the ancient golden age in India

CO4 To understand the contribution of Early Indians to polity, art, literature, philosophy, religion and science and technology.

BA III SEM: V

HISO7 : Early India (from beginning to 4th c. BC)

After studying the course the student will be able to …

1) Understand the transition of humans in India from Hunters to Farmers

2) Explain the transition from Early to Later Vedic period.

3) Clarify the causes for the first and second urbanizations

4) Give an account of the teachings of Gautama Buddha and Vardhamana Mahavira

5) Describe the rise and growth of the Mauryan Empire

6) Explain the salient features of Ashoka's Dhamma

HISO8 : History of Medieval India (1206-1526 AD)

After studying the course the student will be able to...

1) Describe the different types of historical sources available for writing the history of medieval India

2) Explain the contributions of medieval rulers like Allaudin Khilji, Muhammad-bin- Tuqhlaq, Krishnadevraya, and Mahmud Gavan

3) Give an account of the administration and economy of the Delhi sultanate and Vijayanagar Empire

4) Elucidate the significant developments which took place in religion, society and culture

HISO9 : Age of Revolutions

After studying the course the student will be able to...

1) Explain the causes and consequences of the Reformation

2) Give an account of the role played by Martin Luther

3) Explain the salient features of the Industrial revolution

4) Given an account of the American revolution

5) Explain the causes, effects and major events of French Revolution

6) Explain the role of major leaders of the French Revolution 1. Social

HISO10 : Political History of the Marathas (1707 to 1818)

After studying the course the student will be able to...

1) Describe the political conditions of the Marathas up to the year1740

2) Explain the role of Balaji Bajirao.

3) Explain the causes and effects of the Battle of Panipat.

4) Understand the political condition of the Marathas after1761.

5) Critically analyze the causes for the decline of Maratha power

HISO11 : History: It's Theory

After studying the course the student will be able to...

1) Understand the definition and scope of the subject of History

2) Know the process of acquiring historical data

3) Explain the process of presenting and writing history

4) Understand the methods of writing history

HISO12 : Ancient India (From 4th c. BC to 7th c. AD)

After studying the course the student will be able to…

1) Know the political ,economic and religious developments which took place in early historic India

2) Know the development of science during Guptas and Vakatakas

3) Explain the role played by Major Satavahana, Kushana, Gupta and VakatakaKings

4) Give an account of the developments in the Post-Guptaperiod

5) Have an informed opinion about the society and culture of Ancient India

HISO13 : History of Medieval India (1526-1707 AD)

After studying the course the student will be able to…

1) Know about the various sources for writing Medieval Indian history

2) Explain the role of rulers like Babar, Akbar, Chandbibi and Ibrahim Adilshah II

3) Gain knowledge about the administrative and revenue system

4) Describe the condition of Industry and trade

5) Explain important developments in religion, society and culture

HISO14 : Making of the Modern World (16th to 19th Century)

After studying the course the student will be able to…

1) Know the causes and consequences of the Glorious revolution in England

2) Explain the concept of Nationalism and account for its rise and spread.

3) Describe the unification of Italy and Germany.

4) Give an account of the rise, growth and impact of Imperialism

5) Explain the significance of the Partition of Africa

6) Know the life and thoughts of important leaders like Metternich, Karl Marx and Abraham Lincoln

HISO15 : Polity, Economy and Society under the Marathas

1) Know the various sources for writing the history of the Marathas

2) Explain the significant developments in the polity of the Marathas

3) Describe the economic conditions

4) Explain the social conditions.

HISO16: Methods and Applications of History

1) Understand the nature of archival sources.
2) Gain conceptual clarity about recent trends in history.
3) Know about the application of history in museums.
4) Explain the concept and scope of heritage tourism.

GURU GADAGE MAHARAJ COLLEGE KARAD

Head
Dept. of History
S.G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(Autonomous)

Department of History

2022-23

Post Graduate (PG)

PROGRAMME OUTCOME

The post-graduate MA History programme is a two year programme with a comprehensive curriculum. The syllabus has been designed to impart knowledge of history, historical studies and historical methodology to the students. It encourages the students to acquire in-depth knowledge of not only the history of India and other countries but also tries to extend their theoretical understanding of the discipline. The programme covers the Ancient, Medieval and Modern period of Indian history as well history of Modern Maharashtra. The students are also introduced to history of the World. The programme offers a number of electives to students for specializations. The faculty follows an interactive teaching methodology and digital technology which enables the students to develop an interest in studying the programme besides participating in other curricular activities.

The History Department Faculty has identified the specific objectives of its post graduate curriculum.

1) To acquaint students with the past and present of Indian ethos and reality through teaching and research in history.

2) To provide students with critical understanding of Indian society, economy, polity and culture through a historical perspective

3) To prepare students for a range of careers by teaching them courses which will impart them with a set of transferable skills while studying history of India and the World as well as museology

4) To stimulate intellectual curiosity and research attitude in the students through the study and research of local, regional, national and global history.

5) It introduces the students to major concepts, ideas and events which created the modern world so that they will be able to place historical events in a larger context.

6) To acquaint the students with the various Indian and foreign traditions of history writing and the debates generated about the nature of history as a discipline.

Programme Specific Outcomes

The following are the learning outcomes that we would like to see each History student graduate with.

1. Students will have knowledge of the chronology, narrative, major events, personalities and turning points of the history of the India and 20th Century Modern World.
2. Students will learn to explain how and why important events happen and change over time occurs.
3. Students will have a clear understanding of the nature of evidence collected from primary and secondary sources.
4. They will be able to analyses and evaluate the evidence in its historical and cultural context and use that evidence to build and support an argument.
5. Students will demonstrate a critical understanding of the significance of historiographical developments in the discipline
6. They will have a comprehensive understanding of the historical method and its distinctiveness from the methods of other disciplines. They will know the influence of methods of other disciplines on the development of historical method.
7. The students will demonstrate an awareness of current historical debates.
8. Students will understand skills that historians use in research
9. Students will develop an informed familiarity with multiple cultures and understand the value of diversity.

Course Outcomes

MA I SEM I

HISC22--21 : Early India (from the beginning to 3rd Century B.C.)

1. The student will understand the original & Developments of Jainism & Buddhism.

2. The student will understand the first urbanization of India.

3. The student will become familiar with the foundation & Administration of Mauryan Empire

HISC22-22 : Aspects of Medieval Indian History (1206-1750)

I. The students will be able to understand the changes which took place in Medieval Indian Society.

2. The students will be to understand the impact of Muslim Architecture on Indian Architecture.

3. The Students will understand the medieval administrative system & Trade

HISO22-21 : Legacy of the Marathas

1. The students will understand the concept of Swarajya

2. The Student will Understand Polity of Chhatrapati Shivaji Maharaj

3. it is helpful to the students toUnderstand the development of art and architecture during Maratha Period

HISO22-22: Making of 19th Century Maharashtra

Course Outcomes:

1. The students will be able to understand the socio-economic & cultural changes.

2. The Students will become familiar with new education system.

3. The Students will become familiar with western legal system.

MA I SEM II

HISC22-23: Institutions under the Marathas

1. It is helpful for Understanding of social structure during Maratha Period

2. This paper makes Familiar with Administrative system of Maratha.

3. This paper help students to Understand of Political system during Maratha period

HISC22-24 : National Movement in India (1905-1947)

1. Understanding of Indian Freedom Movement in depth.

2. Inculcation of nationalism among the students

3. Understanding of contribution of freedom fighters during the freedom movement

HISO22-23: Historical Monuments in the Deccan

1. This paper Create awareness regarding the historical monuments in Deccan

2. The students should acquire knowledge about art and Architecture during Medieval Period

3. The students should familiar with temple architecture in the Deccan

HISO22-24 : Maharashtra Today (1960-2000)

1. Understanding of the creation of Maharashtra through the 'Sanyukt Maharashtra Movement.

2. The students will understand the historical background of Maharashtra.

3. The students should able to understand the developments in educational, economical and other fields.

MA II SEM III

HISC25: Traditions of History Writing

CO1. Explain the changes with took place in history writing in ancient and medieval era.

CO2. Know historical traditions prevailing in Europe and Asia.

CO3.Give an account of various traditions of history writing in the world

CO4. Understand the traditions of 'History from below' in India

HISC26: Twentieth Century World (1900 to 1950)

CO1. Understand the concept and importance of nationalism

CO2. Know the background and consequence of world war first

CO3. Explain the events between two World wars

CO4. Give the work of UNO for World peace

HISO25: Forts of Maharashtra

CO1. Understand the concept of Forts

CO2. Significance of forts for Politics, Administration, Military and Social life

CO3. Explain the history of forts

CO4. Application of forts in tourism

HISO26: Economic History of 19th Century India

CO1. Understand the concept of Indian Economic History

CO2. Understand the concept of Urban, Urbanization in Indian context.

CO3. Student understand Issues and Problems of Indian Economic History

MA II SEM IV

HISC27: Recent Trends in History Writing

CO1. Gained Information of new concept in History

CO2. Got Information of concerned branches of History

CO3. Introduced new approaches in History

CO4. Got new information of new technology in history

HISC28: Twentieth Century World (1950 to 2000)

CO1. Gained Information of global situation created during cold war.

CO2. Understood information of social movement in the world.

CO3. Understood information of revolution in the field of science, technology and communication

CO4.Gained information global situation created after cold war.

HISO27: Political Leaders of 19th Century Western Europe

CO1. Gained information about life and work of Napoleon Bonaparte.

CO2. Understood information about life and work of Queen Victoria.

CO3. Understood information about life and work of Metternich.

CO4. Gained information about life, work and foreign policy of Otto von Bismark.

HISO28: History of Travel and Tourism in India

CO :01. The course explores various facets of Indian heritage and culture that make the country an attractive tourist destination.

CO2 : It encourages the applied understanding of history in the expanding tourism sector.

CO3 : The course will introduce students to the travel and tourism sector so that they will be able to explore and evaluate the option of choosing it as a career in the future

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SADGURU GADAGE MAHARAJ COLLEGE KARAD

Rayat Shikshan Sanstha's

S.G.M. COLLEGE,KARAD

Department of Economics

A. Course Outcomes (COs):-

1. Students should know characteristics of Indian Economy and contribution of different sectors in the economy.
2. Students should know circular flow of national income and functions of banks.
3. Students should know the impact of free trade and protected trade on the economy.
4. To analyses economic behaviour of firm, industry and market structure.

B. Programme Outcomes (POs):-

1. Acquired knowledge with facts and figures concerned with Economics.
2. Students acquire knowledge of Indian economy, market structure, pricing policy, poverty, employment policies, monetary policy, fiscal policy, international trade issues etc.

C. Program Specific Outcomes (PSOs):-

1. Understand basic concepts of economics and analyse economic behaviour in practice.
2. Understand the economic way of thinking and write clearly expressing an economic point of view.
3. Analyse historical and current events from an economic perspective.
4. Find alternative approaches to economic problems through exposure to coursework in allied fields.
5. Create students ability to suggest solutions for various economic problems.

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Department of Economics

Course Outcomes

Class	Semester	Paper Name & Number	Outcomes
B. A. I	I	Indian Economy (I)	1. Students should know characteristics of Indian economy. 2. Students should know contribution of different sectors in the Indian economy.
	II	Indian Economy (II)	1. To understand changing role of agriculture in Indian economy. 2. To understand importance of industrialization in the economy.
B. A. II	III	Macro Economics	1. To understand concepts and theories in Macroeconomics. 2. Students should know circular flow of national income.
		Banks & Financial Institutions	1. To understand impotence & functions of banks. 2. To understand contribution of financial institutions.
	IV	Macro Economics	1. Students should know causes of trade cycle. 2. To understand tax structure in India.
		Banks & Financial Institutions	1. Students should know functions of capital market. 2. Students should know recent trends in banking.
B. A. III	V	Micro Economics (VII)	1. To analyses economic behaviour of industrial firms and markets. 2. It is mainly concerned with the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of consumer behaviour and demand analysis.
		Research Methodology in Economics (VIII)	1. Students of economics should know the basic concept and methodology of research.
		History of Economics Thoughts (IX)	1. The students should know the contribution of economic thoughts. 2. They should able to know the concepts of classical, neo-classical and modern economist.
		Economics of Development (X)	1. To know the concept and aspects of economic development. 2. To understand the theories of economic growth and development.
		International Economics (XI)	1. To understand concepts & theories in international economics. 2. Students should know the impact of free trade and protected trade on the economy.

	VI	Market and Pricing (XII)	1. To understand market structure. 2. Students should know how pricing is determined in deferent markets.
		Research Methodology in Economics (XIII)	1. Students of economics should know the basic concept of research methodology and report writing.
		History of Economics Thoughts (XIV)	1. The students should know the contribution of economic thoughts. 2. They should able to know the thoughts of Indian economist.
		Economics of Planning (XV)	1. To understand the concept and issues of economic planning. 2. To know about Indian economic planning.
		International Economics (XVI)	1. Students should know foreign trade of India since 1991. 2. To understand objectives and functions of IMF, World Bank, WTO and SAARC.

Programme Outcomes (Undergraduate Level)
Faculty – Social Science (Economics)

After completing the graduation in Economics, the student should have:

1. Acquired knowledge with facts and figures related concerned with Economics.
2. Students acquire knowledge of Indian economy, market structure, pricing policy, poverty, employment policies, monetary policy, fiscal policy, international trade issues etc.

Program Specific Outcomes
Faculty – Economics

On completion of B.A (Economics), Students are able to:

1. Understand basic concepts of economics.
2. Analyse economic behaviour in practice.
3. Understand the economic way of thinking.
4. Analyse historical and current events from an economic perspective.
5. Write clearly expressing an economic point of view.
6. Find alternative approaches to economic problems through exposure to coursework in allied fields.
7. Create students ability to suggest solutions for various economic problems.

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Academic Year 2022 – 2023

Department of Sociology

B.A. Sociology:
Program Outcomes

1. The students should understand the Background of Sociology.
2. To understand all basic concepts in Sociology.
3. Understand the emergence and development of Sociology.
4. Understand the sociological theories.
5. Understand the Western and Indian sociological thinkers.

B.A. Sociology:
Course Outcomes
B.A. Part – I – Semester - I
Paper I – Introductiou to Sociology (SOCO22-1)
1. Making familiar with the foundation of sociology.
2. Acquaintance with social interaction, social institution and social group.
3. Acquaintance with career opportunities in Sociology.

B.A. Part – I – Semester - II
Paper II – Principles of Sociology (SOCO22-2)
1. Making students familiar with the principles of sociology.
2. Acquaintance with various concepts in sociology.
3. Acquaintance with importance of various concepts for further studies in sociology.

B.A. Part – II – Semester - III
Paper III – Social Issues in Iudia (SOCO3)
1. Understanding the meaning of social issues.
2. Understanding the nature of social issues.
3. Acquaintances with various social issues.

Paper IV- Social Movements in Iudia (SCO3)

1. Understanding the concept social movements.
2. Acquaintance with factors responsible for social movements.
3. Acquaintance with various social movements.

B.A. Part – II – Semester - IV
Paper V – Gender & Issues (SOCO5)
1. Understanding the concepts sex and gender.
2. Understanding the patriarchy and gender.
3. Acquaintance with issues related to women.

Paper VI- Sociology of Health (SOCO6)
1. Acquaintance with one of the branch of Sociology.
2. Understanding the society and health.
3. Acquaintance with the importance of Sociology of Health.

B.A. Part III – Semester - V
Paper VII – Western Sociological Thinkers (SOCO7)
1. Understanding the sociology of French thinker August Comte .
2. Acquaintance with Karl Marx famous thoughts and class struggle theory.
3. Understanding the sociology through the lens of western thinkers.

Paper VIII – Methods of Social Research – Part – I (SOCO8)
1. Acquaintance with the concept social research.
2. Acquaintance with various methods of social research.
3. Understanding the importance and need of methods of social research.

Paper IX – Political Sociology (SOCO9)
1. Acquaintance with one of the branch of sociology.
2. Understanding the relation between polity and society.
3. Understanding the importance of political sociology.

Paper X- Human Rights (SOCO10)
1. Understanding the concept human right.
2. Acquaintance with the historical background of human rights.
3. Acquaintance with the fundamental rights in Indian Constitution.

Paper XI – Sociology of Religion (SOCO11)
1. Acquaintance with one of the branch of sociology.
2. Understanding the relation between religion and society.
3. Acquaintance with various religion and their thoughts.

B.A. Part III – Semester - VI

Paper XII – Indian Sociological Thinkers (SOCO12)

1. Acquaintance with Indian Sociology.
2. Understanding the Indian thinkers thought about society.
3. Understanding the Indian thinker's perspectives.

Paper XII – Methods of Social Research (Part II)

1. Acquaintance with various social research methods and their applications.
2. Understanding how to use social research methods.
3. Acquaintance with filed study and survey method.

Paper XIV – Social Anthropology (SOCO 14)

1. Acquaintance with the old branch of sociology.
2. Understanding the meaning and nature of social anthropology.
3. Acquaintance with the some social anthropological thinkers and their thoughts.

Paper XV – Rural Sociology (SOCO15)

1. Acquaintance with one of the branch of sociology.
2. Understanding of the various concepts related with rural society.
3. Understanding of the importance and need of study rural society.

Paper XVI – Urban Sociology (SOCO16)

1. Acquaintance with one of the branch of sociology.
2. Understanding of the various concepts related with urban society.
3. Understanding of the importance and need of study urban society.

B.A. Sociology:

Program Specific outcomes

1. Understanding of the origin, nature and brief outline of development of Sociology.
2. To enhance students understanding about fundamental sociology.
3. To develop the knowledge about Indian culture and socialization process.
4. To strengthen the students understanding about theoretical approaches of Western and Indian thinkers.
5. Understanding of the social issues, its classification and need of study.
6. Understanding of the human rights and their importance.
7. Understanding of meaning, characteristics, elements of social movement.
8. Awareness about peasant problem and its impact on society.
9. Understanding Dalit movement and its causes.
10. Understanding meaning, nature of Gender.
11. To create awareness among students about gender issues.
12. Understanding of the nature, subject matter and importance of sociology of health
13. Understanding of health policy in India.

M.A. Sociology:

Program Outcomes

1. Students are familiarizing the conceptual and theoretical knowledge in fundamental areas of sociology.
2. Students are able to introduce the various study area of sociology and its relevance to day to day life.
3. Ability to understand human society.
4. To create awareness among students about social issues and their relevance to day to day life
5. To encourage the students for conducting research in the field of sociology.

Course Outcomes

M.A. Part I – Semester I

Paper – Classical Sociological Traditions: Comte, Durkheim & Weber (SOCC22-21)

1) To introduce the students to the schools of thought that dominated by classical traditions.
2) To acquaint students with the western thinkers.
3) To impart knowledge to the students regarding the Comte, Durkheim & Weber thoughts.

Paper – Understanding Indian Society (SOCC22-22)

1) To construct students understanding with the concept of Indian society.
2) To acquaint the students with social institutions of Indian society.
3) To understand social changes in Indian society.

Paper – Social Movements in India (SOCO22-21A*)

1) Illustrate the ideas social movement in Sociology.
2) Outline the major Contribution of some social movements.
3) To know the history of social movements in India.

Paper – Education & Society (SOCO22-22)

1) To know the history of education in India.
2 Understand the relationship between sociology and education.
3 To know the importance and need of education in Sociology.

M.A. Part I – Semester II

Paper – Classical Sociological Traditions: Marx, Pareto, Mead & Cooley (SOCC22-23)

1) To illustrate the intellectual roots of classical sociological theories.
2) To acquaint the students with the concept of theory of Marx, Pareto, Mead & Cooley.
3) To develop understanding of the sociological traditions.

Paper – Perspectives on Indian Society (SOCC22-24)

1) To acquaint the students with the concept of Indian Society.
2) To understand the different perspectives on Indian society.
3) To develop understanding of Indian society.

Paper – Sociology of Change & Development (SOCO22-23A*)

1) To acquaint students with the concepts of change and development.
2) To illustrate the relationship between change and development.
3) To understand change and development theories.

Paper – Political Sociology (SOCO22-24)

1) To acquaint students with the new branch of sociology.
2) To understand concepts and theories in political sociology.
3) To illustrate the importance and need of political sociology.

MA Part- II Semester – III

Paper- Modern Sociological Theory (SOCC25)

1 To illustrate the intellectual roots of sociological theories.
2 To evaluate sociological theories.
3 To analyze sociological theories of different schools of thought.

Paper - Methodology of Sociai Research (SOCC26)

1) To develop the understanding of social research.
2) To evaporate the basics of social research methodology.
3) To introduce the students with research methods.

Paper - Globaiization and Society (SOCO25A*)

1) To construct students understanding with the concept of globalization.
2) To access the consequences of globalization on society.
3) To acquaint the students with agencies of globalization.

Paper - Sociology of Health (SOCO26)

1) To make the students understand the basic concepts of sociology of health.
2) To evaluate the role of medical social worker.
3) To develop understanding of health policy of the government of India.

M.A.-II -Semester IV

Paper - Recent Trends in Sociological Theory (SOCC27)

1) Understand recent theoretical perspectives in sociology.
2) Explain Jeffery Alexander's Neo-functionalism and Hegelian Neo-Marxism
3) Explain Phenomenological and ethno methodological theories of sociology.

Paper - Data Collection and Analytical Procedures (With Practical) (SOCC28)

1) Classify various techniques of data collections.
2) Explain data processing methods such as editing, loading and computer feeding.
3) Interpret univariate, bivariate and multivariate methods of analysis.

Paper - Non-Governmental Organizations (NGOs) and Development (SOCO27A*)

1) To know the concept of NGOs and GOs in India.
2) To understand examine Societies Registration Act-1860
3) To know the preparation of project proposals.

Paper - Sociology and Social Work (SOCO28)

1) To know the history of social work in India.
2) Understand the relationship between sociology and social work.
3) To know the basic concepts and methods of social work, case work, group work, social work research etc.

Program Specific outcomes

1) To make students familiar with the field of classical sociology and acquaint with the basic thoughts and perspectives.
2) Strengthen the theoretical understanding, expand knowledge base and enhances skills required for a best understanding of human society through the theory and practical component of the course.
3) Inculcate the analytical ability, research aptitude and relevant skill for professional life.
4) Introduction to contemporary sociological thoughts.
5) To focus on the need and importance of sociology in contemporary time.

GADAGE MAHARAJ COLLEGE KARAD SADGURU

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DEPARTMENT OF POLITICAL SCIENCE

2022-2023

UG

PROGRAMME OUTCOME

1) Development of study of comparative approach
2) Knowledge of recent trends in Political Theory
3) Understanding of working of Constitutions of India, Shrilanka, Pakistan, Nepal
4) Aware about current National and international politics and foreign policy
5) Knowledge about Indian and Western Political Thought.
6) Understanding of formation of Public Policy
7) Competency for competitive examinations at national and state civil services.
8) Understanding of theory and practice of Public Administration.
9) Understanding of Women Politics and Gender equality in Indian Politics
10) Acquaint Knowledge about the Various Social Movement in India as well as world politics

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DEPARTMENT OF POLITICAL SCIENCE

2022-2023

UG

Programme Specific Outcome

1) The students will get basic and introductory knowledge of Political Science.
2) The students will get knowledge about Indian Constitution.
3) Understand basic Issues or Problems in Indian Politics.
4) Understand historical development of Local Self Government
5) Understand basic knowledge of Political Theory.
6) Get information about various concepts in Public Administration.
7) Get acquainted with the concepts and dimension of International Politics.
8) Understand Idealism and Philosophical base of Western Thought
9) Understand Politics of Maharashtra

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COURSE OUTCOME UG

POLO22-01 – Introduction to Political Science

1) The students will get basic and introductory knowledge of Political Science
2) The students will get knowledge about Political Process, International relations & Public Policy
3) The students will understand key concepts Political Science.
4) The students will become aware about democratic government.

POLO22-02 – Indian Constitution

1) The students will get knowledge about making and philosophy of Indian Constitution.
2) The students will become aware about Fundamental Rights, Directive Principles and Duties.
3) The students will understand about working of Legislature, Executive and Judiciary.

POLO3 Political Process in India

1)Understand Federal Structure and Centre State relations.
2) Know the Election Process and get actual knowledge about Lok Sabha in India .
3) Get ideological foundations and Manifestoes of Political Parties in India .
4) Understand basic Issues or Problems in Indian Politics.

POLO4 Indian Political Thought Part -I

1) Understand Ancient Political Institutions and ideology.
2) Know anti Brahminical thinking process and idea of alternative State
3) Impact of Western Philosophy on Indian Thinkers.
4) Nature movement of anti British Rule.

PA1 :Public Administration (IDS)

1) Understand development and Scope of the Public Administration.
2) Know the organogram of the Organization.
3) Evaluate Public Corporations.
4) Equip with recent developments in Public Administration.

POLO5: Local Self Government in Maharashtra

1) Understand historical development of Local Self Government.
2) Know the structure and Powers of Rural Local Self Government.
3) Know the structure and Powers of Urban Local Self Government.
4) Understand recent additions in the Local Self Government.

POLO6: Indian Political Thought Part –II

1) Know nature and philosophy of anti British Movement, Truth and Non Violence, Trusteeship and Gram Rajya.

2) Understand Philosophy of Mixed Economy, Secularism and Non Alignment.

3) Know the bad impact of Caste system, Importance of State Socialism and Parliamentary Democracy.

4) Get idea about New Humanism.

PA2: Public Administration (IDS)

1) Understand Recruitment, Training, Promotions and Neutrality of Bureaucracy

2) Strengthen the theoretical understanding of Budgetary Process.

3) Know the need and importance of Delegated Legislation.

4) Acquaint with new trends and concepts in Public Administration.

POLS7 Political Theory

1) Getting basic knowledge of Political Theory

2) Understanding of approaches to Political Theory

3) Knowing Behavioral movement in Political Science

4) Acquiring knowledge about concepts of Power, Authority and Legitimacy

POLS8 Public Administration.

1) Acquiring information about various concepts in Public Administration.

2) Getting knowledge about Organization, its Bases, Principles and Units.

3) Getting acquainted with the budgetary process in India.

4) Understanding the interface between citizens and Public Administration; and other agencies in society and Public Administration.

POLS9 International Politics

1) Getting acquainted with the concepts and dimension of International Politics.

2) To understand main theories of International Politics.

3) To know the working of international and regional organizations and the new world order that emerged after the end of cold war.

POLS10 Comparative Politics

1) Students will be familiar with basic theory of comparative politics

2) Students be able to understand constitutionalism, federalism.

3) Students shall understand party system and pressure groups and its functioning.

4) Students shall understand classification of political parties and pressure groups

POLS11 Western Political Thought – I

1) Students will get acquainted with the western tradition from Plato to Rousseau.
2) Students will understand the evolution of western Political idea.
3) Students will be able to study historical aspects of western state and society.

POLS12 Modern Political Concepts

1) Student will know modern concepts such as Feminism, Multiculturalism, Environmentalism and Civil Society etc.

2) This will enable students to have comprehensive idea of contemporary scenario in political science.

POLS13 Politics and Movements in Maharashtra

1) Student will know the Political System of Maharashtra.

2) They will understand the process of formation of Maharashtra State

3) Student will know the movements, pressure groups and political parties in Maharashtra.

4) This will provide comprehensive idea of contemporary politics of Maharashtra.

POLS14 Foreign Policy of India

1) Student will understand, 'what is Foreign Policy and what are the objectives of Foreign Policy.

2) This will provide comprehensive idea of foundation of Indian Foreign Policy

3) Student will come to know India's relation with super powers and neighboring countries.

4) It will bring attention of the students towards the current national and international political situation and foreign policy.

POLS15 Comparative Government (With special reference to UK & USA)

1) To familiarizes students with composition, functions, and law making process of legislative bodies in UK and USA.

2) To introduce the students with execution process of laws in UK and USA

3) To introduce the Judicial System in UK and USA and procedure of adjudication

4) Students will understand the role of Pressure Groups in the Politics of UK and USA.

POLS16 Western Political Thought- II

1) The students will understand Political views of J. S. Mill, Karl Marx, Gramsci & Hannah Arendt

2) The students will get acquainted with various aspects of state and society with western perspective.

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DEPARTMENT OF POLITICAL SCIENCE

2022-2023

PROGRAMME OUTCOME PG

On successful completion of the Master in Political Science (MA) programme, the student will be able to:

1) Enhance theoretical understanding and knowledge base in political sphere.
2) Enhance participation in local, state, national and international political activities
3) Emerge as a successful political advisor, surveyor and political analyst.
4) Become political consultant to regional and national political parties and government sectors.
5) Develop among the students to gender and environmental perspectives of politics and political ideas.

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DEPARTMENT OF POLITICAL SCIENCE

2022-2023

Programme Specific Outcome PG

1) The students will get knowledge about Political Theory.
2) Student will get knowledge of Public Administration.
3) The students will get knowledge about of Indian Constitution
4) The students will get knowledge about Social Movements in India.
5To understand Diplomatic and Law process at International Level.
6) Understand various approaches of study of Comparative Politics.
7) Understand major Issues or Problems in Indian Politics.
8) Understand development of Indian Administration.
9) Understand major Issues in World Politics
10) Understand Idealism and Philosophical base of Western Thought.

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DEPARTMENT OF POLITICAL SCIENCE

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COURSE OUTCOME PG

POLC21-22: Political Theory

1) The students will get knowledge about Political Theory
2)The students will become aware about State and its various perspectives.
3)The students will get knowledge about old and new key concepts of Political Science

POLC22-22: Public Administration

1)The students will get introduction about Public Administration.
2) This paper gives knowledge of approaches of Public Administration
3) The students will get information about composition and principles of organization.
4) This paper gives study of Personnel, financial administration and New Public Management.

POLC23-22: Indian Constitution

1) The students will get knowledge about making and philosophy of Indian Constitution
2) The students will become aware about Fundamental Rights and Duties
3) This paper gives detail knowledge about working of Legislature, Executive and Judiciary

POLO21/B-22: Social Movements in India

1) The Students will get knowledge about Principles and foundation of Social Movements in India

2) The Students will get knowledge about recent trends in social Movements in India.
3) The Students will get knowledge about peasant Movements in India.
4) The Students will get knowledge about Social evils in India.

POLO21/A-22: Political Thought of Dr. B R. Ambedkar(CBCS)

1) This paper focuses on relevance of Dr.Ambedkar's thought
2) The students will get knowledge about Dr.Ambedkar's views about Religion and Caste
3) The students become aware about Dr.Ambedkar's ideas about Nationalism,State Socialism
4) The students get knowledge about Dr.Ambedkar's view on Women, Linguistic States and Democracy

POLC24-22: Contemporary Political Issues

1) The students will get knowledge bout theories, characteristics and movements of Feminism.
2) The students will get knowledge about Environmentalism and ecologism
3) The students will become aware about developmental issues and globalization

POLC32: Western Political Though

1 Understand Idealism and Philosophical base of Western Thought.
2 Understand Social Contract theories and Secular Western Thought.
3 Get knowledge of Utilitarianism, Democratic theories

4 Acquire Philosophy of Marxism and Post Maxis

POLO24: Gandhi and Post Gandhian Thinkers

1) Understand Gandhian Philosophy and its relevance

2)Understand extension of Gandhian Philosophy by Vinoba Bhave

3) Understand extension of Gandhian Philosophy by Dada Dharmadhikari.

4) Understand synthesis of Gandhism with Socialism and thoughts of R.M.Lohia

POLO24/A: Issues and Challenges in Indian Administration

1 Understand relationship between Leadership and Bureaucrat

2 Understand about red-tapism, absence of transparency in bureaucracy.

3 Get knowledge about administrative reforms and Good Governance

4 Understand new trends in Indian administration.

POLC29: Indian Political Process

1 Get knowledge of models of Political Process.

2 Know the LokSabha Elections and Coalition Politics in India.

3 Understand major Issues or Problems in Indian Politics

4 Understand Indian Political Economy in Globalization

POLO 23: Indian Administrations

1 Understand Development of Indian Administration.

2 Know the organizational and administrative setup at Central level.

3 Know the organizational and administrative setup at State level.

4 Know working of District and Village administration.

POLO 23/A: Local Self Government in India

1 Understand development of Local Self Government in India
2) Know the organizational Structure of Local Self Government
3) Know the Constitutional Amendment related to Local Self Government
4)Understand elections and Women Empowerment in Local Self Government

POLC30: Contemporary International Politics

1 Understand New World Order after Cold War.
2 Get knowledge about Regional Economic and Political organizations.
3 Get knowledge about World Economic and Political organizations.
4 Understand major Issues in World Politics.

POLC31: Comparative Politics in South Asia

1 Understand historical background, Freedom movements and Making of the Constitution.
2 Compare organs of the government.
3 Understand structural base of Society and its Economy
4 Get knowledge about Electoral Politics and Issues in this countries

POLC25-22: Public Policy

1) The students will get basic knowledge about Public Policy.
2) The students will get knowledge about approaches, making and implementation of Public Policy.
3) The students will become aware about influence of New Economic Policy on Public Policy.

POLC26-22: Modern Indian Political Thought

1) The students will get views of Modern Indian Political thinkers.
2) The students will become aware about Indian thinkers' ideas about Liberalism, Democracy, Nationalism,
3) The students will able to know Sarvodaya and Socialism.

POLO22/B-22: Women and Politics

1) The students will get knowledge of gender issues in relation to gender equity

2) The students will get knowledge gender Sensitized

3) The students will get knowledge gender politics and will encourage gender justice in power allocation.

POLO22/A-22: POLITICAL SOCIALOGY

1) The students will get Interdisciplinary knowledge about political science and Sociology

2) The students will get knowledge about various approaches to political Sociology

POLC27: Theory of International Politics

1 Basic theme in the study of International Politics.

2 Various theories of study of International Politics

3 Determinants of National Power and Security Measures of Nation

4 Diplomatic and Law process at International Level

POLC28: Comparative Politics

1 Understand various approaches of study of Comparative Politics

2 Get knowledge of development of Constitutionalism

3 Understand organs of Government

4 Development of Federalism

SADGURU BADAMRAJ MAHARAJ COLLEGE * KARAD

H.O.D
Dept. of Pol. Sc.
S.G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

School of Social Science

Department of Philosophy

SEM I B. A. I (Sub code PHIO22-01)

Outlines of Indian Philosophy

	Teaching Hours	**Credit**

Course Outcomes:

i) To Introduce Philosophy as an academic subject

ii) To acquaint students with main Branches of Philosophy

iii) To inculcate the habit of critical and systematic thinking

iv) The create an awareness about significance of Philosophical thinking for academics and life in general

UNIT : Introduction of Philosophy	**15**	**01**
1.1 Definitions of Philosophy. Nature and scope of Philosophy		
1.2 Common characteristics of Indian Philosophy.		
1.3 Veda, upnisad, classification of Darshan.		
UNIT II :Charvaka Darshana	**15**	**01**
1.1 Materialism		
1.2 PratyakshaevamPramanam		
1.3 Ethical views on Charvaka		
UNIT III : Jain Darshan	**15**	**01**
2.1 Nature and Principal of Ahimsa		
2.2 Anekantvad : Nyayvad and Syadvad		
2.3 Jainas Epistemology		
UNIT IV : Buddhism	**15**	**01**
3.1 Four Nobel Truth		
3.2 Asthangmarg		
3.3 Concept of Anityavada and Nirvana		

REFERENCE BOOKS

1. M. Hiriyanna : Outlines of Indian Philosophy.
2. S. Radhakrishnan : Indian Philosophy vol-I & II.
3. Outlines of Philosophy : Shivaji uni. Publication Prof. Hirave, Nangare, Fartare.
4. श्रीनिवास हरी दिक्षित–भारतीय तत्त्वज्ञान .
5. श्री . द .वा . जोग–सर्वदर्शनसंग्रह .
6. भारतीय दर्शनांचे नितीशास्त्र –सुनिलदत्त गवरे .

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomous College)
School of Social Science
Department Philosophy
B.A – I
Paper – II (Sub Code- PHIO22-O2)
Outlines of Western Philosophy

	Teaching Hours	Credit

Course Outcomes

i)To Introduce Philosophy as an academic subject
ii)To acquaint students with main Branches of Philosophy
iii)To inculcate the habit of critical and systematic thinking
iv) The create an awareness about significance of philosophical thinking for academics and life in general

UNIT I:Socrates	**15**	**01**
1.1.Pre- Socratic Philosophy(sophist)		
1.2. Method of Socrates		
1.3. Moral views of Socrates		
UNIT II: Plato	**15**	**01**
2.1. Plato- Allegory of the cave		
2.2. Plato's Doctrine of Ideas		
2.3. Plato's Theory of Knowledge		
UNIT III: Philosophy of Aristotle	**15**	**01**
3.1. Theory of Causation		
3.2. Doctrine of Form & Matter		
3.3.Views on God		
UNIT IV: Philosophy of Rene Descartes	**15**	**01**
4.1.Descartes Philosophy Rationalism		
4.2.Method of Doubt and Cogito Ergo Sum		
4.3. Mind and Body Relation(Dualism)		

REFERENCE BOOKS :

1. F.Copelston : History of Philosophy.
2. D.J.O.Connor: A Critical History of Western Philosophy.
3. Outlines of Philosophy:Shivajiuni.publication.Prof. Hirave, Nangare, Fartare
4. ग.ना. जोशी--पाश्चात्य तत्त्वज्ञानाचा इतिहास खंड. १ व २

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

Bachelor of Arts

Department of Philosophy 2022-2023

BA

Programme Outcome:-

The Course Introduces the student the recent developments in outlines of Indian and western Philosophy. It aims at developing critical and analytical skills in understanding.

1)To make students familiar with the field of Introduction philosophy and acquaint Basic concepts.

2)To acquaint the students with knowledge Processes ,Perception, and Learning with Scientific Method.

3)To acquaint the students with thinking Processes with Critical, analytical & Descriptive in Contemporary Philosophy.

7) To acquaint the students with the nature and significance Philosophy of Saints.

8) To highlight importance of Contemporary philosophical processes in the Experience of Indian and Western Culture .

Programme Specific Outcome:-

1) Student will get familiar with new concepts in Indian and western Philosophy .
2) Students will able to know thinking approach of Scientific Theories.
3) Student will get information about various philosophical schools.

Student will acquire for philosophical discussion related with Philosophical structure, Definition, scope, Nature for Philosophy.

Course Outcome:-

BA I

Code no – PHIO22-01

Outlines of Indian Philosophy

1) To Understand philosophy literature.

2) To Understand the creative process and nature of philosophical Method.

3) To get interest in reading philosophical material.

3) Students identify and critically evaluate Philosophical research methods

Code no – PHIO22-02

Outlines of Western Philosophy

1)To Introduce Philosophy as an academic subject

2)To acquaint students with main Branches of Western Philosophy

3)To inculcate the habit of critical and systematic thinking

BA II

Code no- PHIO3 Indian Ethics

1) Clear societal value when it inspires innovation to find more efficient means to reach important goals. This utilitarian approach to achieving societal goals is practical but not in and of itself ethical.
2) To acquaint students Indian Ethical theory's

Code no – PHIO4 Political Philosophy

1) It enrichcs us with its wealth of knowledge and also helps us to find answers to those questions
2) To understand Political Theories

IDS – LOGIC1
Traditional Logic

1) The ability to think logically.
2) The ability to analyze and solve problems.
3) The ability to assess proposed solutions.
4) The ability to write and speak clearly, attending to details.

BA II

Code no- PHIO5Western Ethics

1) To Introduce Western Ethics as an academic subject

2)To acquaint students with main Branches ofWestern Ethics

3)To inculcate the habit of critical and systematic thinking

Code no – PHIO6 Social Philosophy

1) Social Philosophy tries to find out the basic laws which operate in the society and influence human relations.
2) Its aim consists in discovering the meaning of the actual mode of existence.
3) Its aim is to interpret society with reference to the essential social unity of mankind.

BAIII

PHIO7 – System of Indian Philosophy (Part-1) / PHIO8 – System of Indian Philosophy (Part- 2)

1)Demonstrate understanding of major ethical theories and problems in the Western Tradition through written and oral discussion. Outcome

2) Assess arguments and philosophical perspectives using critical reasoning. Outcome

3) Express complex thoughts logically and coherently.

PHIO8- System of Western Philosophy (Part- 1)/ PHIO13- System of Western Philosophy (Part- 1)

1) Philosophy can also provide us with a framework for making ethical decisions and for exploring important questions about life and death, meaning and purpose.
2) By studying philosophy, students can develop their reasoning and abstract thinking skills, which are essential for success in any field.

PHIO9- Symbolic Logic (Part-1) / PHIO14 -Symbolic Logic (Part-1)

1) Define proposition and argument.
2) Explain propositional connectives.
3) Explain and exemplify truth value status of a proposition.
4) Explain and and exemplify validity of an argument.

PHIO10- Contemporary Philosophy (part-1) PHIO15- Contemporary Philosophy (Part-2)

1) Understand and employ the principles of contemporary logic to think clearly and critically. Apply relevant ethical theories to contemporary and historical ethical problems.
3) Articulate and argue for a philosophical position both in writing and in oral presentation.

PHIO11- Philosophy of Saints (part-1) PHIO16- Philosophy of Saints (part -2)

1) To create Ethical thinking and Behavior

2) People Define what is right and good

HOD

Department of Philosophy
Department of Philosophy
S. G. M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College (an Autonomous)
Department of Psychology
B. A. Psychology (UG)
Outcomes
2022-23

B.A. PSYCHOLOGY (UG)

Programme Outcomes

1. The students should understand the Background of Psychology.
2. To understand all psychological basic concepts.
3. Understand the beginnings and growth of personality and learning theories.
4. Understand the human development process in child and adolescence period.
5. Understand the salient features of prominent socio-religious reform movements.

B.A. PSYCHOLOGY (UG)

Program Specific outcomes

1. To make students familiar with the field of introduction psychology and acquaint basic research concepts.
2. To acquaint the students with Cognitive Processes, perception and learning with psychological investigation and research design commonly used research design
3. To acquaint the students with Memory processes with emotion, Motivation and Personality.
4. To acquaint the research methodology in Psychology and APA style of preparing Research proposal
5. To acquaint the students with the nature and significance of the emergence of health psychology with in a life span perspective
6. To highlight importance of social and psychological processes in the experience of health and illness.
7. To focus on the behavioral risk factors viz- vis disease prevention health.

B.A. PSYCHOLOGY (UG)

Course Outcomes

B. A. I

Paper: I Foundation of Psychology

1. Making familiar with the foundation of psychology.
2. Acquaintance with cognitive process, State of consciousness and learning.
3 Acquaintance with memory Processes.

Paper: II General Psychology

1. Making Familiar with the field of general psychology.
2. Acquaintance with intelligence, Motivation & emotions.
3 Acquaintances with Personality.

B.A.II

Paper III Child psychology

1. Understanding the beginning process of life.
2. Knowledge about the prenatal, Infancy and childhood developmental processes.

Paper IV Applied Psychology

1) Understanding the health psychology
2) Understanding the Stress and coping Strategies
3) Acquaintance with the Knowledge of the Self
4) Acquaintance with the Knowledge of the Self-direction for changing the World.

Paper No. V Developmental Psychology

1) Understand the Development Process of Adolescence, Early Adulthood, Middle adulthood and late adulthood.
2) To acquaint the students with emotions, self - development of Infancy and intellectual development of childhood.

Paper No.VI Modern Applied Psychology

1) Understanding The Psychoanalysis Theory
2) Understanding the importance of friendship
3) Knowledge about Personal growth and process.
4) Understanding the Health and Self-concept.

B.A.-III

Paper No.-VII Cognitive Psychology

1) Introduction to the field of Cognition in General.
2) Understanding the process of attention, Perception Reaction time And Learning
3) Acquaintance with memory

Paper No.-VIII Cross Cultural Psychology

1. To acquaint students with emerging field of Cross-Cultural Psychology

2. To make students aware of global v/s relativistic approaches to study human behavior

3. To sensitize students recognize cultural aspects of individual development and socialization

4. To understand socio-cultural influences in development of abnormality and its treatment

5. To introduce the importance of multiculturalism in globalized world

6. To enhance understanding of indigenous psychologies

Paper No.-IX Psychopathology

1) To make the students familiar with the field of Psychopathology.

2) To acquaint students with various perspectives of Psychopathology.

3) To make the students understand Anxiety and Obsessive Compulsive Disorder.

4) To acquaint students with Mood Disorders and Suicide.

Paper No.-X Current Trends in Psychology

1. To acquaint students with emerging new trends in Psychology

2. To make students aware of health risk behavior and their causes

3. To sensitize students recognize developmental factors related to criminal behavior

4. To understand psychological, family and social influences in development of criminality

5. To introduce work carried out in the field of cyber psychology

6. To learn about psychological processes behind digital Usage, cyber bullying, gaming and gambling

7. To make students aware of online crimes such as scams, fraud, illegal downloads etc.

Paper No.-XI Practical Experiment

1) Introduction psychological Experiments
2) Imparting the Knowledge and skills for conducting experiment and writing theirreport
3) Introduction some Statistical Method

Paper No.XII.Psychological testing

1) Introduction to the field of psychological testing in general
2) Abundance with the nature and uses of psychological test
3) Understanding the nature and other description of Intelligence test,Ability test and personality test.

Paper No. XIII.Counseling Psychology

1) Introduction to the field of counseling Psychology
2) Comprehending the application of counseling Psychology in The Feld of Career,Marriage,couple and family counseling

Paper NoNo.XIV Developmental Psychology

1. To acquaint the students with processes of change and stability through about the life span development.

2. To introduce students the process of birth.

3. To acquaint the students with emotions, self - development of Infancy and intellectual development of childhood.

4. To recognize students with Identity, relationship and problems of Adolescents.

5. To introduce students with career, health and personality development of Adulthood.

Paper No. XV Psychology of Organizational Behavior

1. Gain an understanding of key concepts in organizational behavior.

2. Gain an understanding of the idea of personality, job satisfaction and leadership.

3. Gain an understanding of the group processes.

4. Be able to understand the fundamental change processes of organization.

Paper No.XVI. Practical: Psychological Test

1) Introduction to Psychological Test.
2) Imparting the Knowledge and skills for administrative psychological test and writing their reports.
3) Getting acquainted with some statistical Methods.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

HEAD
Department of Psychology
S.G.M. College, Karad

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College (an Autonomous)
Department of Psychology
M. A. Psychology (PG)
Outcomes
2022-23

Programme Outcomes:

1. Students are familiarizing the conceptual and theoretical knowledge in fundamental areas of psychology.

2. Students are able to introduce the various branches of psychology and its relevance to day today life.

3. Ability to understand human behavior in the society.

4. To encourage the students for conducting research in the field of psychology

M. A. Psychology (PG)

Program Specific outcomes:

1) To make Students Familiar with the field of introduction psychology and acquaint Basic Research Concept.

2) Strengthen the theoretical understanding; expand knowledge base and Skills required for a professional psychologist through the theory and practical component of the course.

3) Inculcate the analytical ability, research aptitude and relevant skill forprofessional life.

4) Introduction to counseling process and techniquesor use for psychological theories for reduces some problem.

5) To focus on the behavioral risk factors viz-a-vis disease prevention health.

M. A. Psychology (PG)

Course Outcomes:

M.A. I

Paper: I Research Methods in Psychology

1) To make Student familiar with research Process in Psychology.

2) To acquaint Basic Research concepts and technique.

3) To acquaint with Psychological investigation & Research Designcommonly used research Design.

4) To acquaint the research method in psychology and APA style of preparing research proposal.

Paper: II Applied Cognitive Psychology

1. To acquaint the students with cognitive process, perception, attention, memory, learning process, emotions and motivation etc. all.

2. Students developments in cognitive Science and psychology

3. It aims at developing critical and analytical skills in understanding Complex mental processes.

Paper: III Positive Psychology

1. To acquaint the students with the nature and significance of the Emergence area of positive psychology within a life span perspective.

2. To highlight importance of positive emotions, resilience, self- efficacy Optimism and hope processes in the experience of Health and well- Being.

3.Improve the Student view forall things in Human life.

Paper IV: Practical Experiments

1. Improvethe Strategies Different areas of experimentation in psychology.

2. Various skills of conducting experiments and writing their Reports.

3. Conduct any one experiment from each group.

Paper V: Statistic in Psychology

1) To acquaint and make the students understand with different Statistical methods.

2. To develop computational skills among students.

3) Student analyze empirical data their practical and Project Work.

Paper VI: Health Psychology

1) To acquaint the students with the nature and significance of the emergence area of health psychology within a life span perspective.

2) To highlight importance of social and psychological processes inthe Experience of health and illness.

3) To focus on the behavioral risk factors viz-a-vis disease Prevention health promotion.

Paper VII: Personality Psychology

1) To make the student familiar with the basic concept in personality Psychology.

2) To make the student aware about the personality of an individual can be assessed and Diagnosed from different points of view.

3) To make the students study and understand some of the new theories of personality.

Paper VIII: Practical Psychological Test

1) The different types of psychological test administration of psychological tests and interpretation of scores.

2) Various skills of writing reports of psychological tests.

3) Certain skills of psychological counseling on the basis of test results

M.A.II (Psychology)

Paper IX Introduction to Counseling Psychology

1. Understand the basic concepts in counseling and guidance

2. To know about various areas of counseling

3. Understand application in counseling Psychology

Paper X Psychological Testing in Counseling Psychology

1. Student learns to basic all psychological test information.
2. To understand application for Psychological testing in counseling psychology.

Paper XI Approaches to Counseling strategies

1. To learn basic concept in psychodynamic, humanistic and gender based counseling and therapeutic approaches.

2. To understand the role of therapeutic relationship.

Paper XII Project

1) To develop skills of psychological assessment and intervention in counseling psychology among the student.

Paper XIII Counseling Skills for counselor

1) To understand the actual process of counseling.
2) To make students familiar with professional skills in counseling
3) To learn to deal with complex situation in counseling

Paper XIV Assessment Techniques in Counseling Psychology

1) To implement skills necessary for selective and applying different test for different purpose such as identification, intervention and prevention.

2) To train student in various psychological assessment techniques.

3) To understand the actual process of counseling.

4) Understand the collaborative working in counseling

Paper XV Introduction to brief Psychotherapies

1) To develop skills of psychological assessment and intervention in counseling psychology.
2) To understand various psychotherapies.

Paper XVI Practicum

1) To develop skills of psychological assessment and intervention in counseling psychology among the student.

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Sadguru Gadage Maharaj College, Karad
(Autonomous)

Department of Geography

UG: B.A.

Programme Outcomes -Bachelor of Arts (B.A)

After completion of the B.A. Programme, the students will be able:

1. Understand Knowledge in the field of Geography.
2. Cultured and good citizen.
3. Employment and entrepreneurship opportunities.
4. Understand fundamental values of human being.
5. Use communication and soft skills.
6. Socially, Politically, Economically and culturally conscious.
7. Overall personality development of the learners.

Program Specific Outcome- Geography

After completion of the Programme, the students will be able:

1. Understand Geographical ideas and thought.
2. Understand the creative research in GIS and Remote Sensing.
3. Get interest in visited locally to globally tourism places.
4. Develop the advanced cartographic and surveying technological approach.
5. Understand the concept and development of modern agricultural techniques.

Course Outcome- Geography

After completion of the course, the students will be able:

1. Acquaint the students various dimension of Physical and Human Geography.
2. Acquaint the major climatic processes and phenomena in the role of climatic changes.
3. Understand the relationship of man and environment.
4. Understand chemical and physical properties of soil and water.
5. Understand development of agro tourism.
6. Acquaint the student's conflicts and disputes at national and international level.
7. Develop the skills for applying ICT in geography.
8. Develop the student's research attitude with recent technology.
9. Acquaint the students with distinct dimensions of India.
10. Develop the skill of the students in instrumental survey.

M.A. Geography Program Specific Outcome

Programme Outcome:

PO's describe what student are expected to know or to able to do by the time of graduation and post-graduation. Following are the program outcome of PG in Geography.

At the end of the program, the student will able to:

1. Apply knowledge of geography in all the field of learning including higher research and its extension.
2. Explain the knowledge of contemporary issues in the field of geography.
3. Student get placement in corporate sector.
4. Adjust themselves completely to the demands of the growing field of geography by long life learning.
5. Work effectively as an individual and also as member of science and multidisciplinary terms.
6. Student can establish entrepreneurship through advanced surveying technology.

Programme Specific Outcome:

PO-I: Global level research opportunities to purchase Ph.D program.

PO-II: Enormous job opportunities in GIS sector.

PO-III: Enormous job opportunities in Meteorological Department, Urban Planner, Cartographer etc.

PO-IV: Develop problem solving skill and apply them independently in society.

PO-V: Assimilate complex geographic ideas and arguments.

PO-VI: Improve own learning and performance.

PO-VII: Develop abstract geographical thinking.

Course Outcome:

Semester I

Fundamentals of Geomorphology

Understand the fundamental concepts in Geomorphology.

1. Understand evolution and distribution of continents and oceans.
2. Understand earth surface forces and processes of landforms.
3. Understand the mountain building activities and origin of mountains.

Principles of Climatology

1. Understand the fundamental concepts in Climatology.
2. Understand evolution and distribution of climatic aspects.
3. Understand the earth's climatic condition.
4. Understand the Climatic hazards and its influence on human life.

Economic Geography

1. Get knowledge about problem and prospect about agriculture, trade and transport.
2. Aware the student about need of conservation and Protection of natural resources.
3. Knowledge of industrial location theories.
4. Understand the energy resources of world.

Geography of Population and Human Resource Development

1. Understand the pattern of world population
2. Understand the demography of world
3. Knowledge of population theories.
4. Understand the Current Issues and Policies of Population

Practical in Geomorphology and Field Surveying

1. Understand the different surviying techniques.
2. Knowledge about preparation of drainage basin morphometry.
3. Acquire knowledge of preparation of drawing of

profile with the help ofTheodolite.

4. Acquire knowledge of plotting the small area

with the help of Totalstation.

Analysis of Socio-economic and Climatic Data

1. Understand weather sign and symbol, temperature height diagram and water budget.
2. Understand agricultural data analysis method.
3. Understand calculation of growth enrollment ratio and measures of population growth.
4. Understand calculation of human development index.

Semester- II

Applied Geomorphology

1. Students get Idea about tectonism and Volcanoes.
2. Students can understand denudation processes and landforms development.
3. Students understand concepts of cycle of erosion and slope development.
4. Students get knowledge about environmental and regional geomorphology.

Applied Climatology and Climate Change

1. Students understand the advanced concept related to climate change.
2. Students get idea about the applications of climatology.
3. Student observed the climate-human interaction and awareness.
4. Student gets knowledge about climatic conditions and change.

Geography of India

Student gets Idea of physical feature of India.

1. Student understand concept of Green and White Revolution and Agro-climatic zone.
2. Student understands contemporary issues in India.
3. Student understands distribution and production of mineral and power resources.

Political Geography

1. Understand the history of Political Geography.
2. Get knowledge about Evolution of states & nations.
3. Get knowledge of Geopolitical theories.
4. Investigate Problems and disputes in India

Computer Application in Geography

1. Student understands fundamentals of Geography.
2. Student gets idea use of MS office, MS Excel and MS PowerPoint.
3. Student understands calculation of central tendency measures with the help ofComputer.

Statistical Techniques in Geography

1. Understand the representation of Statistical data.
2. Compute of Measures of Central tendency of dispersion.
3. Calculation and plotting moving Average.
4. Compute the Correlation of Pearson's and Spearman's methods.
5. Statistical data Analysis of simple regression
6. Know the Importance of Statistic in Geography.

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(Autonomous College)

Reaccredited by NAAC with 'A+' Grade

New Syllabus For

Bachelor of Arts

EDUCATUION

Syllabus

To be implemented from June, 2022 onward

B.A.-I

Course I Part I: Philosophical Foundations of Education

Programme Outcome

The Course introduces the student the recent developments in outlines of **Course I Part I: Philosophical Foundations of Education.** It aims at developing critical and analytical skills in understanding.

To make students,

1. To explain the concept of philosophy and education with reference to aims, curriculum, methods and role of teacher.
2. To explain the aims of education and reflect values in his behavior.
3. To apply the concept of freedom and discipline in their day to day life.
4. To evaluate critically the contribution of educational thinkers.

Programme Specific Outcome

1) Student explains the concept of philosophy and education with reference to aims, curriculum, methods and role of teacher.
2) Student explains the aims of education and reflects values in his behavior.
3) Student applies the concept of freedom and discipline in their day to day life.
4) Student evaluates critically the contribution of educational thinkers.

Course Outcome:-

1) To understand the concept of education and philosophy.
2) To understand the functions of education.
1) To get interest in freedom and discipline
2) To identify and critically evaluate the contribution of educational thinkers.

Course I Part II: Sociological Foundations of Education.

Programme Outcome

The Course introduces the student the recent developments in outlines of **Course I Part II: Sociological Foundations of Education.** It aims at developing critical and analytical skills in understanding.

1) To the meaning, nature, scope and relation between education and sociology.
2) To explain role of education and mass media in social change.
3) To apply meaning, nature and importance of different social groups and culture
4) To explains different current social problems in education.

Programme Specific Outcome

1) Student explains the concept of sociology and education with reference to aims, curriculum, methods and role of teacher.
2) Student applies the aims of education and reflects values in his behavior.
3) Student explains the meaning, nature and importance of different social groups and culture.
4) Student evaluates different current social problems in education.

Course Outcomes

1. Student explains the meaning, nature, scope and relation between education and sociology.
2. Student applies role of education and mass media in social change.
3. Student explains meaning, nature and importance of different social groups and culture
4. Student explains different current social problems in education.

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Rayat Shikshan Sanstha's

Sadaguru Gadage Maharaj College Karad

(Autonomous College)

Department of Education

Evaluation Pattern of Examination-(UG)

Scheme of Examination

Term End Examination Marks	Internal Examination Marks	Total
40	10	50

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Pattern of Question Paper

B.A.I, Semester I and II – Interdisciplinary Studies

Term end Examination: Total Marks: 40

Education

External Evaluation: Total Marks: 40

Question No. 1:-

A) Objective Type question - Multiple Choice 05

Question No. 2:-

A) Essay Type question 10

B) Essay Type question – (With internal option) 10

Question No. 3:-

A) Short Answer Type question 15

Iuternal Evaluation: Total Marks: 10

A) Home Assignment 10

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(AUTONOMUS)

Reaccredited by NAAC with 'A+' Grade

New Syllabus For

Bachelor of Commerce

Part-I

2022-23

Programme outcomes, Programme specific outcomes and Course outcomes

Programme Outcomes –

After completion of B.Com Programme, the students will be able:

1. Students able to thinking strategically and critically to business and commerce related issues.
2. Students able to take effective decision in business and commerce.
3. Students will able to develop ability to find solutions against commerce related problems.
4. Students will able to work collaboratively and productively.
5. Students will able to engage confidently in self-directed study and research.
6. Students will to communicate ideas effectively in both written and oral formats.

Program Specific Outcome – Advanced Accountancy

After completion of the Programme, the students will be able:

1. State the accounting treatment for Insurance Claim Accounting.
2. Prepare the financial statements of banking companies with the provisions of Indian companies act 1949.
3. Illustrate budgetary control process and types of budget.
4. Explain the auditing concepts and procedure of conducting audit.

Course Ontcomes:

Course Outcomes:

1. Application of accounting concepts and practical's.
2. Explain the Accounting entries of the purchase system and hiring of accounting concepts.
3. Demonstrate accounting of bank final accounts with specific schedules.
4. Stimulate practice of preparing financial statements such as fund flow statement and cash flow statement.
5. Practice and preparation of cost sheet and material variance.
6. Computation of income under various heads of incomes such as income from salary and house property.

Course Outcomes

SEMESTER-I

Business Management -Paper-I

Course Outcomes:- By the end of this course it is expected that the student will be able:-

1. To Understand Concept of Management and Significance of Management.
2. To know different Contributors towards Management Theories.
3. To understand concept of Scientific Management, Traditional Management and Professional Management.
4. To Know Management Functions and its applications in the organization.
5. To understand Management of change and process of planned change.

Financial Accounting Paper- I

Course Outcomes:- By the end of this course it is expected that the student will be able:-

1. To understand financial accounting concept and branches of accounting
2. To Study the amalgamation of partnership firm.

3. To know the procedure of conversion of Partnership firm in to limited company.
4. To understand the Accounting of Professionals.

Marketing Management Paper-I

Course Outcomes: By the end of this course it is expected that the student will be able:-

1. To understand core concepts of Marketing, Importance of Marketing.
2. To know Consumer Behavior.
3. To know the Relationship Marketing and Marketing Information System.
4. To understand the Rural Marketing,

Insurance Paper-I

Course Outcomes: By end of this course it is expected that the student will able to-

1. To understand basic concepts of insurance.
2. To know the principles of insurance.
3. To know the procedure of taking life and general insurance policies.
4. To understand functions, code of conduct and procedure of becoming insurance agent.
5. To understand role of IRDA in insurance sector.

SEMESTER-II

Business Management -Paper-II

Course Outcomes: By end of this course it is expected that the student will able to-

1. Students can understand the theoretical knowledge of motivation.
2. To know the leadership style and need of leadership in business management.
3. The can capable to take right decision on right time with the help of this study.
4. With the help of this study students can make soft and right communication in various levels.

Financial Accounting Paper- II

Course Outcomes: By end of this course it is expected that the student will able to-

1. To Learn Consignment Accounting system and Branches of accounting.
2. To Application of Single entry system of accounting into Double Entry System.
3. To know accounting standards.

Marketing Management Paper-II

Course Outcomes: By the end of this course it is expected that the student will be able:-

1. To understand core concepts of selling and promotions activity.
2. To know distribution channels and to selects the appropriate distribution channel.
3. To know the retailing and importance of retailing in society.
4. To understand the resent trends in marketing like social media marketing,

Insurance Paper-II

Course Outcomes: By end of this course it is expected that the student will able to-

1. To understand the fire insurance concepts and its types.
2. To know the marine insurance and its importance and clauses.
3. To know the various types of Miscellaneous Insurance.
4. To understand functions, General Insurance Business in India.
5. To understand functions of an agent, remuneration, termination of an agent, ethical code of conduct.

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New Syllabus For

Master of Commerce

Part-I

2022-23

Programme outcomes, Programme specific outcomes and Course outcomes

Syllabus to be implemented from June, 2019 onwards

Programme Outcomes – Master of Commerce (M.Com)

After completion of M.Com Programme, the students will be able:

PO's describe what students are expected to know or to be able to do by the time of graduation and post graduation. The following programme outcomes of PG in Advanced Accountancy are:

At the end of the program, the students will be able to:

1. A student can apply for the UGC NET/SET or GRF exam
2. M.com Degree serves as a foundation for further advanced studies and research in this area such as PhD and M. Phil.
3. Students also have the option of joining banking, investment and insurance areas which cover a wide range of jobs in investment banks, commercial banks and building societies, broking firms, independent financial adviser, insurance and reinsurance companies.
4. Other job scopes for them are in accountancy and business service that covers many areas such as audit and advisory work, taxation, business consulting, insurance and management accounting.

Programme specific outcomes

1. Students will be able to do commercial activities in the very field.
2. Students will be get numerical and quantitative skills, problem solving and analytical ability and oral and written communication skills.
3. Students will be able to work in investment banks, commercial banks and broking firms, independent financial advisers.
4. Students will be able to get mastery in accountancy and business services that cover many areas such as audit and advisory work, taxation, business consulting, insurance and management accounting.

Course Outcomes:

1. Students will be able to do research in the field of commerce.
2. Students will be able to take decision about investment.

3. Students will be able to maintain accounts of the companies.

Course Outcomes

M.Com- I

SEMESTER-I

Management Concepts & Organizational Behavior Paper-I

Course Outcomes:-

1. To Understand Concept of Management and Significance of Management.
2. To know different Contributors towards Management Theories.
4. To Know Management Functions and its applications in the organization.
5. To understand Management of change and process of planned change.
6. To understand Management Concept and Organizational Behaviors

Managerial Economics – I

Course Outcomes:--

1. The changing new syllabus of managerial Economics is gives big scope in business sector.
2. When there is question of taking decision in field of business than this changing syllabus gives idea.
3. The demand and supply, market structure, output determination this entire concept gives shape in real business.
4. Concept of cost and revenue are playing Vitol role in determination of profit.
5. Using regression model to estimating demand equation
6. Understanding the cost function and different between short term and long term

Advanced Accountancy Paper I

Course outcomes:-

1. Students will get knowledge of accounting standards in details.

2. Accounting Concept and International accounting standards essential for Accounting in MNC's.

3. Students will get knowledge of accounting for Holding Company

4. Students will get knowledge of accounting for and Co-operative Societies.

5. Students will get knowledge of accounting for all types Services, Institutions and

Organizations

Advanced Accouutancy Paper- II
(Auditing)

Course Outcomes:-

1. Students able to understand the Concept of Auditing.
2. Students able to know the different concept of Auditing and Audit Report.
3. Students can apply the Computerized Auditing and audit of insurance companies and Banks.
4. Students will able to understand the different types of Auditing.
5. Students can able to make difference between auditing and accounting.

SEMESTER-II

Management Concepts & Organizational Behavior Paper-II

Course Outcomes:-

1. To Understand Concept of Organizational Behaviour and ethical issues in OB.
2. To know individual and group behaviour.
3. To know the perception and personality and its types.
4. To understand Organizational Conflict Concept, types, sources and levels of Organizational Conflict, Resolution of conflict.
5. To understand Organizational Culture its types, functions. Creating, sustaining and changing culture.
6. To understand the QWL in Indian context.

Managerial Economics – II

Course Outcomes:-

1. Understanding the basic concept of managerial economics.
2. Understanding the reason for existence.
3. Understanding the economic goal of the firm and output decision making.
4. Understanding the basic concept of micro economics.

Advanced Accountancy Paper III

Course Outcomes:-

1. Students will get knowledge of accounting for amalgamation, Absorption and Reconstruction.
2. Students will get knowledge of accounting for Lease Finance
3. Students will get knowledge of accounting for and Life Insurance companies.
4. Students will get knowledge of accounting for and General Insurance companies.
5. Understanding the concept of Social Accounting, Human Resource Accounting and Environmental Accounting.

Advanced Acconntancy Paper-IV

(Taxation)

Course Outcomes:-

1. Students know the concept of Income Tax act 1961.
2. Student can able to understand Tax Liability and computation of tax.
3. To understand E-filing of Returns, online Payment of tax.
4. Student understand Concept of Goods and Services Tax

M.Com- II

SEMESTER-III

Business Finance – I

Course Outcomes: By end of this course it is expected that-

1. Students will able to understand the impact of capitalization on organization.
2. Students will able to examine various factors affecting capital structure decision.
3. Students will get knowledge about sources of finance.
4. Students will become familiar with venture capital, lease finance, project finance.
5. Students will able to examine the sources of working capital requirement.

Management Accounting – I

Course Outcomes: By end of this course it is expected that –

1. Students will understand the various financial statements.
2. Students will able to understand basic management accounting concepts and problems.
3. Students understand Ratio Analysis Techniques and methods process.
4. It helps in planning and controlling of costs of products and services.
5. Students will able to analyze management accounting decisions which is turn assists in maximization of profit.

Advanced Accountancy – V

Course Outcomes: By end of this course it is expected that –

1. Creating ability to take decision at different level of production activity like make or buy, project launching etc.
2. Developing knowledge among students about cost ascertainment and fixation of selling price and cost control.
3. Knowledge about presentation of cost accounting information for the purpose of decision making.

4. Determination of profitable or unprofitable activity in business by using different cost accounting tools.

Advanced Accountancy – VI

Course Outcomes: By end of this course it is expected that -

1. Students will understand the meaning and role of research.
2. Students will able to formulate research problems and understand the major research designs.
3. Students will able to determine data sources and learn the art of designing a questionnaire.
4. Students will able to understand various sampling techniques used for data collection.
5. Students will able to analyze data using various techniques.

M.Com- II

SEMESTER-II

Business Finance – II

Course Outcomes: By end of this course it is expected that –

1. Students will able to understand primary and secondary markets; their roles, inter – linkages and regulatory concerns.
2. Students will develop understanding working of SEBI, mutual funds, micro finance, depository system.
3. Students will able to develop an understanding of the importance of financial inclusion.

Management Accounting – II

Course Outcomes: By end of this course it is expected that –

1. Students will able to understand Management accounting techniques which are related to business and organization.
2. Students will understand cost and management accounting decisions.
3. Students will understand management accounting through accounting concept, methods and techniques.
4. Students understand budget and budgetary control system.
5. Student will understand Concept of Management control system.

Advanced Accountancy – VII

Course Outcomes: By end of this course it is expected that –

1. Students will able to understand and explain features of capital budgeting.
2. Students will able to estimate working capital requirement.

Advanced Accountancy – VIII

Course Outcomes: By end of this course it is expected that -

1. Students will able to do research in various field of commerce.
2. Students will able to prepare research project.
3. Students will able to explain the outcomes of research study.

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Department of Chemistry

Program Outcomes (PO)

Name of Course – B.Sc. (Chemistry)

Chemistry is a fundamental science. It includes the knowledge of physical& chemical properties, structural effects, preparations, reactions & their rates & energetic, analytical techniques, etc. As chemistry being the basic science subject, a degree in chemistry can prepare students for a wide variety of careers in different fields.

The correct understanding and recording of observations is possible by understanding chemistry.

1. Chemistry graduates can work in the chemical industry either as chemists working in the plant as research chemist, production chemist, Q A and Q C officers etc.
2. Chemistry graduates can serve primary schools, high schools as teachers & after post graduation can serve college or university as lecturers, professors etc.
3. Chemistry graduates & post graduates can opt for research work in various fields.
4. Chemistry graduates can opt for support services such as lab technicians, stockroom managers, safety officers etc.
5. Government careers in national, state labs and agencies as analyst, food inspectors, sanitary inspectors, officers in pollution control departments RAW,CBI wings etc.
6. Chemistry graduates can work as assistant for doctors, dentists, veterinarians etc.
7. The B.Sc. degree in chemistry opens a lot of opportunities in fields as varied as medicine, law, business, science etc. Chemistry graduates can work as forensic chemists, biotechnologists, toxicologists, food chemists, cosmetics people, dyers etc.
8. Chemistry graduates can work as officers and technicians in hazardous waste management, materials science, oceanography ,paper and pulp industry, perfume industry, pharmaceuticals, plastic polymers, metallurgy, alloys, food chemistry, geochemistry, forensic science, surface chemistry, textile chemistry, agrochemistry, biotechnology, catalysis, ceramics, colloidal science and more.

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Department of Chemistry

Program Outcomes (PO)

Name of Course – M.Sc. (Chemistry)

1. A master's in organic chemistry degree will likely start with core modules setting out basics, such as the distinctions between organic and inorganic matter, the physical forces that govern atoms, and how scientists can predict an element's behavior based on its atomic makeup.

2. Students grapple with modern theories like quantum mechanics, which seek to explain the behavior of matter.

3. Chemistry is a highly practical degree, with significant teaching time spent in the lab perfecting techniques and performing experiments.

4. As students gain experience in the lab, they are offered the opportunity to perform open-ended experiments, trying out different solutions to chemistry problems posed to them. To do this, students master a variety of analytical techniques. Spectroscopy, the analysis of matter's interaction with radiation, is one of the most important techniques taught, and features prominently in many degrees.

5. As students advance, they may choose to take modules in specialist topics such as pharmacology, chemical engineering, electrochemistry or nanotechnology.

Following are some careers opportunities for M.Sc. Organic chemistry students in fields such as:

- Pharmaceutical/drug development
- Science education
- Patent law/Intellectual property
- Mining and Metallurgy
- Science journalism
- Computer and Telecommunications
- Optics and Photonics
- Chemical analysis/forensic science
- Chemical synthesis

In these areas, the chemist's role could be concerned with quality control of products; management; industrial hygiene; manufacturing; process control; **research and development**; **environmental protection**; and technical sales and service.

6. Chemists are also hired by federal, provincial, and municipal government agencies in the areas of education (at all levels); public health; forensic investigation; water and air quality protection; mineral analysis; waste management, development of technical and analytical information; and research and development in the primary sectors of energy, mining, forestry and agriculture).

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Department of Chemistry

Program Specific Outcomes (PSO)

Paper No.& Name of Paper	Program Specific Outcomes (PSO)
B.Sc.I Chemistry Sem I **paper I: BCT22- 101 (Physical Chemistry)**	**Unit I: Chemical Energetics** 1. Student learns the concept enthalpy and understands enthalpy changes in various chemical processes. Defines effect temperature on enthalpy of reaction. 2. Determines Bond energies from thermochemical data. 3. Student defines second law of thermodynamics and explains the concept of entropy Student derives equation for efficiency of heat engine and third law entropy. **Unit II: Chemical Equilibria** 1. Student understands the free energy concept and chemical equilibrium. 2. Defines Le Chatelier's principle and learns its application to industrial processes. **Unit- III. Kinetic Theory of Gases** 1. Student understands kinetic theory of gas. 2. Student compares ideal and non ideal gases. 3. Solve the problems on Van der Waal's equation. **Unit IV: Chemical kinetics** 1. Student distinguishes between first, second and zero order reaction 2. Gains knowledge about molecularity of reaction, Arrhenius equation, pseudo unimolecular reactions 3. Solves numerical problems based on first order reaction, second order reaction, life time etc.
B.Sc.I Chemistry Sem I **paper II: BCT22- 102 (Inorganic Chemistry)**	**Unit I: Introduction to Quantum Chemistry & Atomic Structure** 1) Student should understand difference between classical chemistry and modern chemistry. 2) Student must explore conceptual fact of atom and molecule. 3) Understanding formation of atomic orbital through quantum approach. 4) Student should know energy level in atom using modern classical quantum mechanics. 5) Student should understand behavior of electron

	in atom. **Unit II: Ionic Bonding** 1) Student should understand formation of various types of bonds. 2) Student should compare formation of solids through various types of bonds. 3) Student should know formation and energetics of ionic bond. 4)) Student should explain the formation statement of Born-Lande equation, Born–Haber cycle, Fajans rule and various aspects of lattice points in ionic solids. 5) Student must explain geometry, structure of ionic solids. **Unit III: Covalent Bonding** 1) Student must explain formation of covalent bond. 2) Student must state approach of molecule formation through VBT. 3) They should demonstrate VSEPR theory and comparison between linear and nonlinear molecule. **Unit IV: Molecular orbital theory (MOT)** 1)) Student must explain the formation of molecule from atomic orbitals. 2)) Student should explain LCAO method, bonding, antibonding and nonbonding molecular orbitals. 3)) Student should understand axial and lateral overlapping of atomic orbitals. 4)) Student should explain various diatomic molecules through VBT and MOT. 5)) Student should know comparison between VBT and MOT. 6)) Student should explain molecular orbital diagram of homonuclear and heteronuclear molecules.
B.Sc.I Chemistry Sem II **paper III: BCT22- 201 (Organic Chemistry)**	**Unit I Fundamentals of Organic Chemistry** 1. The students should learn fundamentals of ganic chemistry. 2. The students should define reactive intermediates, types of reagents and reactions 3. The students should explain preparations and reactions of reactive intermediates, strength of acids and bases. **Unit II Stereochemistry** **1.** The students should learn basic concepts of

	stereochemistry. **2.** The students should define types of stereoisomerism enantiomerism , diasteromerism **3.** The students should explain chirality of compounds, geometrical isomerism in aldoxime and ketoxime. Conformations with respect to ethane, butane and cyclohexane. **Unit III Chemistry of aliphatic hydrocarbons** **1.** The students should learn basic idea of aliphatic hydrocarbons **2.** The students should define alkane alkene and alkynes, types of substitution reactions. **3.** The students should explain preparations and reactions of alkane alkene and alkynes. **Unit IV Chemistry of aromatic hydrocarbon** **1.** The students should learn basic idea of aromatic hydrocarbons **2.** The students should define electrophilic and nucleophilic substitution reaction **3.** The students should explain electrophilic substitution reactions with respect to effect of substitution groups and mechanism.
B.Sc.I Chemistry Sem II **Paper IV: BCT22- 202 (Analytical Chemistry)**	. Development of analytical skills of the students. 2. To inspire and boost interest of the students towards chemistry as the main subject. 3. To inspire and boost interest of the students towards chemistry as the main subject. 4. To develop interdisciplinary approach of the subjects for students opting for specialization in other subjects at latter stages of graduation 5. To expose the students to various emerging new areas of chemistry and apprise them with their prevalent in their future studies and their applications in various spheres of chemical sciences

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Paper No.& Name of Paper	Unit No. and Name of Topic	Program Specific Outcomes (PSO)
B.Sc.II Chemistry Sem III paper V (Physical Chemistry)	Unit 1: Electrolytic Conductivity	Learning and understanding conductivity and transport number of the aqueous solutions with different applications.
	Unit 2: Physical Properties of Liquids	Knowledge about surface tension, viscosity and refractive index will be gained by the student
	Unit 3: Surface Chemistry.	Learning and understanding surface phenomena at heterogeneous surfaces
	Unit 4: Nuclear Chemistry	Learning the various Nuclear phenomena and measurement of nuclear radiations
	Unit 5: Chemical Kinetics	Learning and understanding the knowledge about third order reaction and theories of reaction rates
B.Sc.II Chemistry Sem III paper VI (Industrial Chemistry)	Unit 1: Basic concepts in Industrial Chemistry	a.Learning and Understanding basic concepts and concentration terms b.Distinguish between classical and industrial chemistry c. Distinguish between unit operations and unit processes
	Unit 2: Unit Operations	Knowledge of some unit operations
	Unit 3: Corrosion and Electroplating	Understanding the process of corrosion and Knowledge of prevention from corrosion
	Unit 4: Paper Industry	Knowledge of Indian paper industry
	Unit 5: Analysis of fertilizer	Soap and Detergents

Paper No.& Name of Paper	Unit No. and Name of Topic	Program Specific Outcomes (PSO)
B.Sc.II Chemistry Sem IV paper VII (Inorganic Chemistry)	Unit 1: Co-ordination Chemistry	Learning and Understanding basic concepts about coordination complexes
	Unit 2: Chelation	Knowledge about application of chelates in analytical chemistry.
	Unit 3: p- Block elements	Understanding the properties of P – block elements
	Unit 4: Chemistry of elements of 3d series elements	Student will be capable of understanding the properties of 3d series elements based on it.

	Unit 5: Inorganic semi-micro qualitative analysis	Student will learn the basic knowledge about the qualitative analysis of inorganic compounds
B.Sc.II Chemistry Sem IV paper VIII (Organic Chemistry)	Unit 1: Carboxylic acids and their derivatives	T o impart knowledge about the synthesis, reactivity and applications of carboxylic acids.
	Unit 2: Amines and Diazonium Salts	Knowledge about classification, preparation and applications of amines and diazonium salts.
	Unit 3: Carbohydrates	Understanding the classification, configuration and structure of carbohydrates.
	Unit 4: Carbonyl Compounds- Aldehydes and Ketone	Student will be capable of understanding the nomenclature and reactivity of aldehydes and ketones.
	Unit 5: Stereochemistry	Student will learn the basic knowledge conformational analysis of organic compounds

Paper No.& Name of Paper	**Unit No. and Name of Topic**	**Program Specific Outcomes (PSO)**
B.Sc.III Chemistry Sem V paper IX (Physical Chemistry)	Unit 1. Elementary Quantum Mechanics.	Student should understand basic concept of Quantum Mechanics:Black body radiation, Planck's radiation law, Photoelectric effect, Compton effect, De Broglie hypothesis, The Heisenberg's uncertainty principle, Schrodinger wave equation and its importance.
	Unit 2. Spectroscopy.	1.Student should able to know types of electromagnetic radiations, rotational and vibrational spectra of diatomic molecules 2. Student should understand Raman spectra and able to solve Numerical problems.
	Unit 3. Photochemistry.	Student should understand - 1.Difference between thermal and photochemical processes. 2.Laws of photochemistry 3. Quantum yield 4.Jablonski diagram depicting various processes occurring in the excited state : fluorescence and phosphorescence, Chemiluminescence. 5. To solve Numerical problems.

	Unit 4. Solutions.	Students should get idea about Ideal and non ideal solutions. Composition of liquid and vapour,vapour pressure and boiling point diagrams of miscible liquids, Solubility of partially miscible liquids etc.
	Unit 5. Electromotive force.	Student should understand - 1.Thermodynamics of electrode potentials. 2.Types of electrodes: Construction, representation, half cell reaction and emf equation 3. Reversible and Irreversible cells. 4.Determination of the thermodynamic parameters such as ΔG, ΔH and ΔS. 5.Applications of emf measurements.

Paper	**Unit No and Topic**	**Program Specific Outcomes**
Semester V Paper -X (Inorganic Chemistry)	Unit 1 Hard and Soft Acids and Bases (HSAB)	Students understood basic concepts of HSAB based on Lewis acid
	Unit 2 Metal ligand bonding in Transition metal complexes	Concept of stereoisomerism, structural isomerism and MOT in octahedral complexes etc. things are well understood and applied.
	Unit 3 Inorganic Polymers	Students get well acquainted with classification, uses and applications of homoatomic and heteroatomic polymers
	Unit 4 Metals, Semiconductors and Superconductors	Students get detailed knowledge of metals, semiconductors and superconductors with their applications.
	Unit 5 Organometallic Chemistry	Students acquire the conceptual understanding of organometallic compounds, Synthesis and structural study of alkyl and aryl compounds of Li, Be and Al and carbonyl compounds
SEMESTER-VI Paper XIV	Unit 1 Inorganic Reaction	Basic understanding of mechanism: S_N^1, $S_N^1{}_{CB}$ with examples, acid

(Inorganic Chemistry)	mechanism	hydrolysis, base hydrolysis alongwith trans effect was grasped by students
	Unit 2 Thermodynamic and Kinetic aspects of metal complexes	The differences in thermodynamic stability and kinetic stability, stepwise and overall stability constants for different complexes were deeply understood by students
	Unit 3 A. Nuclear Chemistry B. Actinides	A. The difference between chemical reactions and nuclear reactions, different types of nuclear reactions like artificial transmutation, nuclear fission and fusion, reactors alongwith applications of radiotracers in day to day life are well understood and grasped by students. B. Students seek to understand terms, symbols, electronic configuration and methods of preparation of transuranic elements alongwith IUPAC nomenclature
	Unit 4. Iron and Steel	Students apply their knowledge to understand different ores, extraction of cast iron by blast furnace, manufacture of steel, different processes and types of steels
	Unit 5. Bio-inorganic Chemistry	Role of trace metals, hemoglobin, myoglobin, calcium, sodium potassium pump in physiological processes in body of human being were explained to students to understand.

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Department of Chemistry

Certificate Course in Soil and Water Analysis

2022-23

Course Outcomes (CO)-

1. Students should understand methods of soil and water sampling.
2. Students get familiar with different types of soil.
3. Students get knowledge of fundamentals of soil and water testing.
4. Students were trained to operate different instruments like pH meter, conductivity meter, TDS meter, spectrophotometer, flame photometer etc.
5. After soil testing, deficiency in soil can be determined.
6. Students are able to recommend nutrient dose required for crops.
7. Students can test drinking water quality parameters.
8. Students can understand causes behind soil and water pollution and get aware about environmental problems.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Coordinator

Soil and Water Analysis Course

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Chemistry

A CERTIFICATE COURSE IN, "MILK ANALYSIS"

Course Outcomes: 2022-2023

- Students understand techniques in milk and milk product processing
- To study the working of equipments used in milk and milk product processing
- Students get the concept of milk processing technique
- Study of different milk products like butter and butter oil, cheese, ice-cream and Indigenous milk products w.r.t. manufacturing, uses is well acquainted.
- Detection of adulteration of common adulterants is helpful to check milk quality
- Quantitative study of chemical parameters and their comparison with standard limits are understood.
- Visit to milk industry will be helpful to students for understanding milk processing.

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Department of Chemistry

Course Outcomes (CO)

Name of Course - Nanoscience and Applications

Course Outcomes

1. Students should get knowledge of history and progress of nanotechnology.
2. Students can synthesize nano materials by using different precursors and by different methods.
3. Students would aware about selection of characterization techniques for particular application.
4. Students would identify nanotechnology solutions in various fields.

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Department of Physics

B.Sc.: 2022-23

Programme Outcome

1. **Basic laws of physics:**
   The basic laws of physics, their corollaries, and comprehension of how they can be applied to explain specific natural phenomena within the five key topic-areas* as described in the mission statement of the physics undergraduate program
2. **Thinking skill:**
   Use of critical thinking, hypothesis building, and application of the scientific method to physics concepts, theoretical models and calculations, and laboratory experimentation
3. **Problem solving skills:**
   Problem solving skills and relevant mathematical methods to approach, conceptualize, and achieve analytical or numerical solutions to physics problems within important sub-categories of the five topic-areas*.
4. **Laboratory skills:**
   Laboratory skills and exposure to a variety of important experiments at appropriate levels that illustrate phenomena discussed in the lecture classes. Instrumentation and experimental techniques; methods for quantitative analysis of data and measurement uncertainty.
5. **General skills:**
   General knowledge of the development of physics and the nature of scientific inquiry, particularly the progression from classical physics to the modern physics ideas of quantum mechanics, statistical mechanics, and relativity.
6. **Contemporary areas of physics inquiry:**
   Contemporary areas of physics inquiry as introduced in upper-level physics and interdisciplinary elective courses, as well as in faculty-mentored undergraduate research available to all majors who seek this experience.
7. **Communication skills:**
   Written and oral communication skills for dissemination of scientific results in report, article, or oral presentation formats; standard citation methods; ethics in science and scholarship and its importance to scientific inquiry and professionalism.

(*key-topic areas as given in the Mission Statement of the physics undergraduate program are: i) classical mechanics; ii) electricity and magnetism; iii) thermal and statistical physics; iv) modern physics including quantum mechanics and relativity; v) experimental methods.)

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Head
Department of Physics
S. G. M. College, Karad

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Physics

B.Sc.: 2022-23

Programme Specific Outcomes

1. Students will demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics.

2. Students will demonstrate knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics, and be able to apply this knowledge to analyze a variety of physical phenomena.

3. Students will show that they have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.

4. Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.

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Department of Physics

B.Sc.: 2022-23

Course Outcomes

1. Students will demonstrate an understanding of core knowledge in physics, including the major premises of classical mechanics, E&M and Modern Physics.
2. Students will demonstrate written and oral communication skills in communicating physics-related topics.
3. Students will design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Students will demonstrate an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
4. Students will demonstrate proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.
5. Students will utilize a wide range of printed and electronic resources and information technologies to support their research on physical systems and present those results in the context of the current understanding of physical phenomena.
6. Students will demonstrate understanding of the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility.
7. Students will demonstrate a thorough understanding of the analytical approach to modeling of physical phenomena.
8. Students will demonstrate an understanding of the impact of physics and science on society.

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Sadguru Gadage Maharaj College, Karad

Department of Physics

M.Sc.: 2022-23

Programme Outcome

1. **Basic laws of physics:**

   The students are expected to understand the fundamentals, principles, physical concepts and recent developments in the subject area. As well as the basic laws of physics, their corollaries, and comprehension of how they can be applied to explain specific natural phenomena within the areas of Mathematical Methods in Physics, Classical Mechanics, Quantum Mechanics, Statistical Mechanics, Electrodynamics, Atomic & Molecular Physics, Condensed Matter Physics, Solid State Physics, Experimental Techniques & Research Methodology as described in the mission statement of the physics postgraduate program.

2. **Thinking skill:**

   The students can critically & independently access and evaluate research methods and results. Use of critical thinking, hypothesis building, and application of the scientific method to physics concepts, theoretical models and calculations, and laboratory experimentation.

3. **Problem solving skills:**

   Problem solving skills and relevant mathematical methods to approach, conceptualize, and achieve analytical or numerical solutions to physics problems within important sub-categories of the nine topic-areas*.

4. **Laboratory skills:**

   Research skills, Project skills, Laboratory skills and exposure to a variety of important experiments at appropriate levels that illustrate phenomena discussed in the lecture classes. Instrumentation and experimental techniques; methods for quantitative analysis of data and measurement uncertainty. As well as coverage to a diverse of instruments at applicable level this will be useful for the society and in response with the nature.

5. **General skills:**

   The candidate has the ability to develop and renew scientifically independent via courses or program. General knowledge of the development of physics and the nature of scientific inquiry, particularly the progression from classical physics to the modern physics ideas of quantum mechanics, statistical mechanics, Solid State Physics, Research Methodology. The candidates develop to understand the role of physics in society and has background to consider ethical problems

6. **Contemporary areas of physics inquiry:**

   Contemporary areas of physics inquiry as introduced in upper-level physics and interdisciplinary elective courses, as well as in faculty-mentored postgraduate research available to all majors who seek this experience.

7. **Communication skills:**

   Written and oral communication skills for dissemination of scientific results in report, article, research papers or oral presentation formats; standard citation methods; ethics in science and scholarship and its importance to scientific inquiry and professionalism.

(*key-topic areas as given in the Mission Statement of the physics postgraduate program are: i)Classical mechanics; ii) Quantum Mechanics; iii) Statistical Mechanics; iv) Electrodynamics; v) Atomic & Molecular Physics; vi) Condensed Matter Physics; vii) Solid State Physics; viii) Experimental Techniques; ix) Research Methodology.

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Department of Physics

M.Sc.: 2022-23

Programme Specific Outcomes

1. Students will demonstrate expertise in Mathematical, Statistical and classical concepts needed for an appropriate understanding of physics.

2. Students will reveal knowledge of Classical Mechanics, Quantum Mechanics, Electrodynamics, Solid State Physics and Research Methodology and be able to apply this knowledge to analyze a variety of physical phenomena.

3. Students will illustrate that they have learned Research skills, Project skills, laboratory skills, Paper writing and Presentation skills as well as instrumentation handling skill, analysis of data skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions occurred in the society.

4. Students will be capable to think critically and work independently as well as prove that they developed for oral and written scientific communication.

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Department of Physics

M.Sc.: 2022-23

Course Outcomes

1. Students will demonstrate an understanding of fundamental knowledge in physics, including the major areas of Classical Mechanics, Quantum Mechanics, Electrodynamics, Modern and Solid State Physics, Experimental and Research Methodology.
2. Students will exhibit written and oral communication skills in communicating physics-related topics.
3. Students will design and conduct a project (series of experiments) demonstrating their understanding of the scientific method and processes as well as understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
4. Students will exhibit ability in the acquisition of data using a variety of laboratory instruments & characterization techniques required for analysis and interpretation of such data.
5. Students will utilize a wide range of printed and electronic resources and information technologies to support their research on physical systems and present those results in the context of the current understanding of physical phenomena.
6. Students will prove understanding of the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility.
7. Students will demonstrate a comprehensive understanding of the analytical approach to modeling of physical phenomena.
8. Students will demonstrate an understanding of the impact of physics and science on society.

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Sadguru Gadage Maharaj College, Karad

(Autonomous College)

Department of Mathematics

B.Sc.

(2022-23)

Programme Outcomes

1. To acquire the knowledge with facts and figures related to Mathematics.
2. To understand the basic concepts, fundamental principles, and the scientific theories related to various Mathematical concepts and their relevancies in day-to-day life.
3. To analyze the given scientific data critically and systematically and to draw the objective conclusions.
4. To be able to think creatively (divergently and convergent) to propose novel ideas in explaining facts and figures or providing new solution to the problems.
5. To understand how developments in mathematics helps in the development of other science subjects and vice-versa and how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments.
6. To develop scientific outlook not only with respect to Mathematics but also in all aspects related to life.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

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Sadguru Gadage Maharaj College, Karad

(Autonomous College)

Departmeut of Mathematics

B.Sc.

(2022-23)

Programme Specific Outcomes

1. To demonstrate basic manipulative skills.
2. To apply the underlying unifying structures of Mathematics and the relationships among them.
3. To demonstrate proficiency in writing proofs.
4. To communicate Mathematical ideas both orally and in writing.
5. To investigate and solve unfamiliar mathematical problems.
6. To investigate and apply Mathematical problems and solutions in a variety of contexts related to science, technology, business and industry, and illustrate these solutions using symbolic, numeric or graphical methods.

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(Autonomous College)

Departmeut of Mathematics

B.Sc.

(2022-23)

Course Outcomes

Paper-I (Differential Calculus-I)

By the end of course, the student will be able to:

1. learns $\epsilon - \delta$ definition of limit of a function of one variable.
2. learns important properties of continuous functions
3. learns differentiability of a function and geometrical meaning of derivative
4. learns to find the n^{th} derivative of product of two functions.

Paper-II (Differential Equations-I)

By the end of course, the student will be able to:

1. learns exact differential equations and the condition for exactness.
2. learns differential equation of first order but not of first degree.
3. learns to find general solution of $f(D)y = 0$.
4. learns to find general solution of $f(D)y = X$

Paper-III (Differential Calculus-II)

By the end of course, the student will be able to:

1. learns exact differential equations and the mean value theorems.
2. learns series expansions and indeterminate forms.
3. learns Euler's theorem on homogeneous function.
4. learns the Lagrange's Method of undetermined multipliers method.

Paper-IV (Differntial Equations-II)

By the end of course, the student will be able to:

1. learns homogeneous linear differential equation and method of solution.
2. learns second order differential equations.
3. learns the ordinary simultaneous differential equations.
4. learns the condition for integrability of Pdx+Qdy+Rdz=0.

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Maths 1.1.1

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(Autonomous College)

Department of Mathematics

PO, PSO, CO: M.Sc.

(2022-2023)

(I) Programme Outcomes

1) To apply the knowledge of mathematical science to solve real life problems.
2) To design the methodology suitable to the problem encountered.
3) To analyze and interpret outputs and generate new ideas based on the outputs.
4) To utilize, gather and generate information.
5) To lead, work in team and give priority to the success of team.
6) To recognize and learn the importance of life-long learning.

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(2022-23)

(II) Programme Specific Outcomes

1) To create a hypothesis and appreciate how it relates to broader theories.
2) To evaluate hypotheses, theories, methods and evidence within their proper contexts.
3) To solve complex problems by critical understanding, analysis and synthesis.
4) To demonstrate engagement with current research and developments in the subject.
5) To critically interpret data, write reports and apply the basics of rules of evidence.
6) To select, interpret and critically evaluate information from a range of sources that include books, scientific reports, journals, case studies and the internet.
7) To develop proficiency in the analysis of complex physical problems and the use of mathematical techniques to solve them.
8) To provide a systematic understanding of the concepts and theories of mathematics and their application in the real world – to an advanced level, and enhance career prospects in a huge array of fields.
9) To criticize mathematical arguments.
10) To communicate effectively by oral, written, computing and graphical means.
11) To recognize the need to engage in lifelong learning through continuing education and Research.

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(2022-23)

(III) Course Outcomes

Title of paper: Algebra

Upon successful completion of this course, the student will be able to:

i) analyzeZassenhaus lemma, Schreier refinement theorem.
ii) applySylow's theorem.
iii) apply the division algorithm in polynomials over fields.
iv) apply Eisenstein criterion and Gauss lemma.
v) have a demonstrable knowledge of modules theory.

Title of paper: Advanced calculus

Upon successful completion of this course, the student will be able to:

i) analyze convergence of sequences of functions.
ii) analyze convergence of series of functions.
iii) check differentiability of functions of several variables.
iv) apply mean value theorem for differentiable function
v) apply Green's theorem, Stoke's theorem and Gauss divergence theorem.

Title of paper: Real Analysis

Upon successful completion of this course, the student will be able to:

i) generalize the concept of length of interval.
ii) analyses the properties of Lebesgue measurable sets.
iii) demonstrate the measurable functions and their properties.
iv) understand the concept of Lebesgue integration of measurable functions.
v)characterize Riemann and Lebesgue integrability.
vi) prove completeness of L^P Spaces.

Title of paper: Differential Equations

Upon successful completion of this course, the student will be able to:

i) application problems modeled by linear differential equations.
ii) use power series methods to solve differential equations about ordinary points and regular singular points.
iii) use Wronskian to verify linearly dependence or independence.
iv) analyze Bessel's equations and its properties.
v) to find Green's function

Title of paper: Classical mechanics

Upon successful completion of this course, the student will be able to:

i) discuss the motion of system of particles using Lagrangian and Hamiltonian approach.
ii) apply D'Alembert's Principle on Lagrange's equation.
iii) solve extremization problems using variational calculus.
iv) analyze Routh's procedure.
v) discuss the motion of rigid body.

Title of paper: Linear Algebra

Upon successful completion of this course, the student will be able to:

i) know basic notions in Linear Algebra

ii) use the results in developing advanced mathematics.

iii) analyze the relation between linear transformation and its matrix equivalent.

iv) represent Canonical forms and Bilinear forms.

v) use relation between eigen values and trace, determinant

Title of paper :- Topology

Upon successful completion of this course, the student will be able to:

i) have a demonstrable knowledge of topological spaces.

ii) obtained the bases and subbases of topological subbases.

iii) find a relation between T_0, T_1 , T_2 spaces.

iv) construct examples on T_0, spaces.

v) Urysohn lemma and Urysohnmetrization theorem

Title of paper: Complex Analysis

Upon successful completion of this course, the student will be able to:

i) enjoy the beauty of analytic functions and related concepts.

ii) analyze the mobius transformation.

ii) apply Cauchy's theorem and integral formula to evaluate complex variable integral.

iv) use residue theorems to evaluate real integrals.

v) useRouche's theorem to locate roots of polynomial.

Title of paper: Numerical Analysis

Upon successful completion of this course, the student will be able to:

i) discuss the methods to solve linear and nonlinear equations.

ii) find numerical integration and analyze error in computation.

iii) solve differential equations using various numerical methods.

iv) applyRunge – Kutta method.

v) analyze sufficient condition for convergence.

Title of paper:-Differntial Geometry

Upon successful completion of this course, the student will be able to:

i)find the directional derivatives of the functions.

ii)compare the unit-speed and arbitrary-speed curves.

iii)apply the Frenet formulas to analyze the curves.

iv)examine whether the given set in R^3 is a surface.

v) construct the parametrizations of different surfaces.

vi) formulate different types of curvatures of given surface.

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Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College Karad

(An Autonomous College)

Department of Statistics

B.Sc. Course (Statistics)

2022-2023

Program Outcomes

Through this degree program

P01. Students are expected to learn basic statistical methods for Statistics, core Statistical Methods as per the syllabi provided by UGC.

P02. Students are expected to learn in depth the computational Statistical tools through computer programming and Statistical software (MS-EXCEL, R-Programming).

P03. More focus is given on Statistical tools useful for service as well as consultancy.

P04. Students will be trained through the projects to handle real life statistical situations and tackle working challenges before Statisticians.

P05. After the completion of this B.Sc. (Statistics) degree program candidates will be ready to serve in: i)Industry (Banking, Finance, Insurance, Production, Software, etc) ii) Government organizations: NSO, NSSO, MoSPI, Agriculture, DSO, DPO etc. iii) Teaching and research

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Head
Department of Statistics

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Sadguru Gadage Maharaj College Karad

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Department of Statistics

B.Sc. Course (Statistics)

2022-2023

Program Specific Outcomes

B.Sc. (STATISTICS):

Program Specific Outcomes

PSO1. Application of statistics in various walks of life.

PSO2. Ability to apply various statistical tools to research problem.

PSO3. Understanding how to collect, present, analyze and interpret the data.

PSO4. Ability to analyze the data by using MS-Excel.

PSO5. Knowing the statistical organization in India and Abroad.

PSO6. Ability to build statistical knowledge.

PSO7. Application of various distributions to real life situation.

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Department of Statistics

B.Sc. Course (Statistics)

2022-2023

Course Outcomes

BST 101 Descriptive Statistics-I:

CO1. Acquaintance with some basic concepts in statistics.

CO2. Making familiar with some elementary statistical methods of analysis of data viz. Measures of Central Tendency, Dispersion, Moments, Skewness, and Kurtosis and to interpret them

CO3. Analysis of data pertaining to attributes and to interpret the results.

BST 102 Elementary Probability Theory:

CO1. Acquainting with some basic concepts of probability.

CO2. Ability to distinguish between random and non-random experiment.

CO3. Ability to find the probabilities of various events

BSP 103: Practical Paper I

C01 .Ability to draw diagram and graphs based on frequency distribution. Students are understand how to summarized data and find averages as well as spread of the data from central value (average).

CO2. Students get the knowledge about to compute moments and find out symmetry and skew symmetry of data. Students are become to find the probabilities of events and conditional probabilities.

BST-201: Descriptive Statistics–II

C01.Define- Types of correlation, fitting of line of Regression, Coefficient of Determination, Residual, Unweighted and Weighted index numbers. Explain- Bivariate data, Correlation, Regression, Multiple and Partial correlation, Multiple Regression.

C02. Index Number, Types of Index Number. Write- Interpretation of r if r=1,r= -1, r= 0, Properties of correlation coefficient, Derivation of the formula for Spearman's rank correlation coefficient.

C03.Fitting of regression plan by method of least square, Properties of Multiple and Partial correlation coefficient, Price, Quantity and Value index number.

BST-202: Probability and Probability Distribution Theory:

C01.Ability to Define- Random Variable, Expectation of random variable , Mean, Variance, Raw and central moments based on expectation of random variable, pgf, Bernoulli , Binomial, Discrete Uniform, Hypergeometric distributions, Poisson distribution, Geometric and Negative Binomial Distribution, Bivariate discrete random variable.

C02 Explain- Results on expectation of random variable, Mean and variance by using pgf. Write-Properties of pgf, Probability mass function-Mean-Variancemoments- cdf for standard discrete probability distribution , Recurrence relation, concept of marginal and conditional probability,

BSP 203: Practical Paper II

C01. Ability to understand Students which are able to find the coefficient of correlation between two and more variables.

C02 Understanding concept of predicts value of one variable when other is known by using technique of regression analysis

C03.To compute the price and quantity index number

C04.Students must get knowledge about the how to use probability distribution to evaluate examples.

BST-301 Continuous Probability Distributions- I

CO1. Ability to understand concept of continuous distributions with real life situations.

C02. Knowladge about the basic concepts of Statistics.

C03. Understand concept of continuous distributions with real life situations

C04. Solve examples on Continuous distributions and Bivariate distributions

C05. Concept of Transformation of univariate and Bivariate Continuous r.v

BST-302 Statistical Methods- I

C01. Ability to know the concept and use of time series

C02. Understand the need of vital statistics and concept of mortality and fertility

C03. Understand concept of Binary Systems, Reliability of binary System, Ageing Properties and solve the examples on order statistics.

C04. Ability to understand the need of vital statistics and concept of mortality and fertility, Solve examples on Demography

C05. Understand the Binary Systems Reliability of binary System and Ageing Properties

Solve the examples on order statistics.

Practical : : BSP-303

C01. Understand the applications of Poisson, Geometric, Negative Binomial distribution, Hypergeometric distributions.

C02. Understand how to obtain random sample from standard probability distribution. Compute the expected frequencies and test the goodness of fit.

C03. Apply time series, reliability, order statistics in real life situations. Sketch time series plots using MS-EXCEL.

BST-401 Continuous Probability Distributions- II

C01. Understand the concept of Normal distribution, Chi-Square distribution, Student's t-distribution, Snedecor's F distribution, Bivariate Normal Distribution

C02. Learn Gamma and Beta Distributions Compute mean, mode, variance, moments, cumulants for Gamma and Beta Distributions

C03. Learn Normal distribution with parameters μ & $\sigma 2$Learn properties of normal curve

Co4. Understand Chi-Square distribution, Student's t- distribution, Snedecor's F distribution.

BST-402 Statistical Methods- II

C01. Understand Large Sample Tests. Learn Testing of Hypothesis

C02. Ability to Learn Meaning and purpose of S.Q.C

C03. To Draw Control charts for Attributes and for variables

C04. Applications of Chebychev's inequality for discrete and continuous distributions. Solve examples on Chebychev's inequality.

Practical – IV : BSP-403

C01. Understand the applications of Continuous Uniform distribution, Exponential distribution, Normal distribution, Bivariate Normal distribution.

C02. Compute the expected frequencies and test the goodness of fit.

C03. Apply Chebechev's Inequality for various distributions.

C04. Construct various control charts.

C05. Apply large and small sample.

C06. Understand the applications of Continuous Uniform distribution, Exponential distribution, Normal distribution, Bivariate Normal distribution.

C07.Compute the expected frequencies and test the goodness of fit.

BST 501: PROBABILITY DISTRIBUTION-I

C01. Knowledge of important univariate distributions such as Laplace, Cauchy, Lognormal, Weibull, Logistic, Pareto, Power Series Distribution.

C02. Knowledge of Multinomial and Bivariate Normal Distribution.

C03. Knowledge of Truncated Distributions.

C04. Information of various measures of these probability distributions.

C05. Acumen to apply standard continuous probability distributions to different situations.

BST 502 : Statistical Inference – I

C01. Knowledge about important inferential aspect of point estimation.

C02. Concept of random sample from a distribution, sampling distribution Of a statistic, standard error of important estimates such as mean and proportions.

C03. Knowledge of various important properties of estimator

C04. Knowledge about inference of parameters of standard discrete and continuous distributions.

C05. Concept of Fisher information and CR inequality.

C06. Knowledge of different methods of estimation.

BST 503 : Operations Research

C01. Concept of Linear programming problem.

C02. Knowledge of solving LPP by graphical and simplex method.

C03. Knowledge of Transportation, Assignment and Sequencing problems.

C04. Concept of queuing theory.

C05. Knowledge of simulation technique and Monte Carlo technique of simulation.

BST 504 : Designs of Experiments

C01. Knowledge of basic terms used in design of experiments.

C02. Concept of one-way and two-way analysis of variance.

C03. Knowledge of various designs of experiments such as CRD, RBD, LSD and factorial experiments.

C04. Knowledge of using an appropriate experimental design to analyze the experimental data.

BSP 506 Probability Distributiou-I

C01. Understand the applications of Logistic Pareto, Multinomial, log normal distributions.

C02. Understand how to obtain random sample from standard probability distribution. Compute the expected frequencies and test the goodness of fit.

BSP 507 Statistical Inference – I

P01 Knowledge about important inferential aspect of point estimation

C02 Concept of random sample from a distribution, sampling distribution of a statistic, standard error of important estimate such as mean and proportions

C03 Concept of Fisher information and CR inequality. Knowledge of different method of estimation.

BSP 508 Operations Research:

C01 Concept of Linear programming problem Knowledge of solving LPP by graphical and Simplex method.

C02. Knowledge of Transportation, Assignment and Sequencing problems.

C03..Knowledge of simulation technique and Monte Carlo technique of simulation. Concept of queuing theory.

BSP 509 Designs of Experiments:

C01. Knowledge of basic terms used in design of experiments.

C02. Knowledge of various designs of experiments such as CRD, RBD, LSD and factorial experiments. Concept of one-way and two-way analysis of variance.

C03. Knowledge of using an appropriate experimental design to analyze the experimental data.

BST 601 : Probability Distribution – II

C01: Knowledge about order statistics and associated distributions and Knowledge of terms involved in reliability theory as well as concepts and measures.

C02: Concept of convergence and Chebechev's inequality and its uses

Concept of law large numbers and central limit theorem and its uses.

BST 602 : Statistical Inference – II

C01. Koncept of interval estimation.

C02. Knowledge of interval estimation of mean, variance and population proportion.

C03. Knowledge of important aspect of test of hypothesis and associated concept.

C04. Concept about parametric and non-parametric methods.

C05. Knowledge of some important parametric as well as non–parametric tests.

BST 603 : Industrial Statistics

C01.EWMA-Chart.CUSUM chart.Six sigma limits for mean.Single sampling plan-I (Small sample).

c02.Single sampling plan-II (Large sample).Double sampling plan-I (Small sample.Double sampling plan-II (Large sample).

BST 604 : Survey Sampling and Official Statistics

C01. Basic knowledge of complete enumeration and sample, sampling frame sampling distribution, sampling and non-sampling errors, principle steps in sample surveys, sample size determination, limitations of sampling etc.

C02. Concept of various sampling methods such as simple random sampling, stratified random sampling, systematic sampling and cluster sampling.

C03. An idea of conducting sample surveys and selecting appropriate sampling techniques.

C04. Knowledge of comparing various sampling techniques. e) Knowledge of ratio and regression estimators.

Practical XII: Probability Distributions and R – Software

C01: Model sampling from Log-normal and Weibull distributions using R-Software. Model sampling from Logistic distribution using R-Software.

C02.Fitting of Binomial and Poisson distributions using R-Software. Fitting of Normal Distribution using R-Software. Fitting of Log-normal distribution using R-Software.

C03.Analysis of Completely Randomized Design (CRD) using R. Analysis of Randomized Block Design (RBD) using R.

C04.Classification of TPM, States and computation of higher transition probabilities.

Practical –XIII: Statistical Inference-II

C01.Construction of MP test.Construction of UMP test.Construction of SPRT for binomial, Poisson distributions, graphical representation of procedure.

C02.Construction of SPRT for exponential and normal distribution, graphical representation of procedure.

C03. Concept of interval estimation. Knowledge of interval estimation of mean, variance and population proportion. Knowledge of important aspect of test of hypothesis and associated concept.

C04. Concept about parametric and non-parametric methods. Knowledge of some important parametric as well as non–parametric tests.

c05. NP test-- Mann-whitney U- test (for two independent samples).NP test –Median test (for two large independent samples).

PRACTICAL PAPER – XIV : Industrial Statistics

C01.EWMA-Chart.CUSUM chart.Six sigma limits for mean.Single sampling plan-I (Small sample).

c02.Single sampling plan-II (Large sample).Double sampling plan-I (Small sample.Double sampling plan-II (Large sample).

PRACTICAL PAPER XV: Survey Sampling and Official Statistics

C01.Simple Random Sampling for Variables.Simple Random Sampling for Attributes.

c02.Determination of Sample Size in SRS for Variables and Attributes.Stratified Random Sampling – I Stratified Random Sampling – II, Ratio Method of Estimation. Regression Method of Estimation.

C03.Systematic Sampling. Cluster Sampling. The students shall get basic knowledge of complete enumeration and sample, sampling frame sampling distribution, sampling and non-sampling errors, principle steps in sample surveys, sample size determination, limitations of sampling etc.

C04. concept of various sampling methods such as simple random sampling, stratified random sampling, systematic sampling and cluster sampling.

c05. knowledge of comparing various sampling techniques. e) Knowledge of ratio and regression estimators.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
Department of Statistics

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

Department of Statistics

M.Sc. Course (Statistics)

2022-2023

Program Outcomes

PO1: The students are expected to understand the principles, concepts and recent developments in the Statistics.

PO2: To enhance student sense of enthusiasm for Statistics and to involve them in an intellectually stimulating experience of learning in a supportive environment.

PO3: To update students with mathematical tools that aid in Statistical theory

PO4: To promote application oriented pedagogy by exposing student to real world data

PO5: The practical course is framed in relevance with the theory courses to improve the understanding of the various concepts in Statistics.

PO6: To make students do projects, which preparer's them for jobs/markets.

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Head
Department of Statistics

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

Department of Statistics

M.Sc. Course (Statistics)

2022-2023

Program Specific Outcomes

PSO1: This course exposes the students to the beautiful world of Statistics and how it affects each and every aspect of our daily life.

PSO2: The course is designed to equip students with all the major concepts of Statistics along with the tools required to implement them. Introduction to computer software's help them in analysis of data by making optimum usage of time and resources. These software's give them the necessary support and an edge when progressing to their professional careers.

PSO3: Exposure to plethora of real life data helps in honing their analytical skills. Having practical component with every paper invokes their exploratory side and fine-tunes the interpretation abilities. Such a pedagogy goes a long way in giving them the required impetus and confidence for consultancy startups/jobs in near future.

PSO4: The structure of the course also motivates/helps the students to pursue careers in related disciplines, especially the data sciences, financial statistics and actuarial sciences

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Head
Department of Statistics

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

Department of Statistics

M.Sc. Course (Statistics)

2022-2023

Course Outcomes

Semester I

S22-101: Real Analysis

CO1: Define and recognize the basic properties of the field of real numbers.
CO2: Define and recognize the series of real numbers and convergence.
CO3: Apply the theorem in a correct mathematical way.
CO4: Define and recognize the real functions and its limits.
CO5: Define and recognize the differentiability of real functions and its related theorems

S22-102: Linear Algebra

CO1: Carry out matrix operations, including inverses and determinants.
CO2: Demonstrate understanding of the concepts of vector space and subspace.
CO3: Demonstrate understanding of linear independence, span, and basis.
CO4: Determine eigenvalues and eigenvectors and solve eigenvalue problems.
CO5: Apply principles of matrix algebra to linear transformations.
CO6: Solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.

S22-103: Distribution Theory

CO1: Understand the Distributions, transformation method, convolution methods, purpose of compound distributions.
CO2: Compute all cases of transformation of random variables.
CO3: Compute and understand non-central distributions.
CO4: Compute and understand Sketch of Distribution and Model sampling of distribution

S22-104: Estimation Theory

CO1: Understand the notion of parametric models, point estimation of the parameters of those models.
CO2: Obtain the sufficient statistic, minimal sufficient statistic, m.l.e., moment estimator of the parameter.
CO3: Understand the concept of MVUE, MVBUE, UMVUE.
CO4: Describe the concept of Bayesian inference and their real life applications.

S22-105: Statistical Computing

CO1: Understand and able to work in advanced excel
CO2: Expert in R-software.
CO3: Understand and expert in simulations, sampling, non-sampling techniques.
CO4: Describe the concept of Bayesian inference and their real life applications.

SP22-106: Practical –I

CO1: Learn the basic ideas of abstract algebra and techniques with proof in pure mathematics and further, it can be use in many other courses.
CO2: Apply compound, Truncated, mixture and non-central probability distributions to solve problems.
CO 3: Perform correlation, regression analysis and appropriate statistical tests for real life situations using R.

Semester II

S22-201: Prohability Theory

CO1: Learn the basic concepts of Sets, Sequence, Measurable function and limit.
CO2: Implementation of theoretical concept in example.
CO3: Recognize the measure theory, random variable, distribution function, limit of sequence variables.
CO4: Understand the concept of convergence and applications with example.
CO5: Understand the central limit theorem and large-sample approximations for common statistics.

S22-202: Theory of Testing Of Hypotheses

CO1: Formulate null and alternative hypotheses, compute probabilities of types of error, MP tests and MLR property.
CO2: Understand UMP and UMPU test with their applications.
CO3: Obtain asymptotic confidence interval of a parameter and its relation with testing of hypothesis problem.
CO4: Apply small, large sample size tests and non-parametric tests in real life problems.

S22-203: Linear Models and Regression Analysis

CO1: Understand and apply multiple regression models in real life situations.
CO2: Understand concept of multicolinearity and non-linear regression.
CO3: Do residual analysis and will able to understand and apply the logistic regression.
CO4: Understand and apply the Robust regression.

S22-204: Design and Analysis of Experiment

CO1: Understand General linear model, Guass Markov theorem, variances and covariance's of BLUEs.
CO2: Recognize one way classification, two way classifications without interaction and with interaction.
CO3: Apply this theory to the analysis of specific models in designing statistical experiments.

S22-205: Sampling Theory and Official Statistics

CO1: Understand the basic concept of random sampling and different methods of sampling.
CO2: Apply unequal probability sampling designs viz. PPSWR, PPSWOR including Lahiri's method and Murthy's estimator for survey.
CO3: Recognize non-sampling error, Response and non-response errors. Apply different model and technique to overcome errors.
CO4: Study the CSO, national level surveys.

SP22-206: Practical –II

CO1: Implement Cluster sampling, Ratio and Regression estimation in real life problems.

CO2: Apply statistical tools in design, research and development.

CO3: Learn the applications of different designs in agriculture.

CO4: Familiarize with the theories and methods of Testing of Hypothesis

CO5: Learn types of errors, non-parametric tests

Non-CGPA: Diploma Course in Python Software

CO1: Student will be understand Sorting and printing data, Summarizing data,. Enhancing output Exporting data.
CO2: Writing code in Python. 4. Student will be able to apply statistical tests.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
Department of Statistics

Head
Dept. of Statistics

PRINCIPAL
S. G. M. COLLEGE KARAD

Botany

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Botany

B.Sc.I-2022-23

Programme Outcome (POs)

Skills that Botany students obtain by the time, they have finished their undergraduate programme.

PO I: Understanding of the fundamentals of Biology & key principles of Botany, Biochemistry, Biotechnology, Environmental Biology, Ecology etc.

PO II: Awareness of the major issue at the forefront of the discipline.

Po III: Good skills such as plant tissue culture, cultivation of plants, Anatomy of plants, preparation of reagents & chemicals for the experiments.

PO IV: Ability to design experiment & work effectively in laboratory.

PO V: Ability to use computer as an information tool. Handling number of instruments safely.

PO VI: Ability to develop their own communication skills, documents & effective presentation.

PO VII: Awareness of the ethical issues in the life science.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

HEAD
Department of Botany & P.P.
S.G.M. College, Karad

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Botany

B.Sc.I-2022-23

Programme Specific Outcomes (PSOs)

1. Application of knowledge and technique of various fields of Botany.
2. Students will show that they have learned laboratory skills, enabling them to take measurements in a Botany laboratory and analyze the measurements to draw valid conclusions.
3. Scale up the biological resources by designing optimization, preparation and analysis of products required for Society.
4. Tabulation and interpretation of biological data using biostatistics.
5. Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

HEAD
Department of Botany & P.P.
S.G.M. College, Karad

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Botany

B.Sc.I-2022-23

Course Outcomes (COs)

1. Students will demonstrate an understanding of core knowledge in Botany' including the major premises of Plant Biodiversity, Ecology, Taxonomy etc.

2. Students will demonstrate Botany-related practical's as well as written and oral communication skills in communicating Botany-related topics.

3. Students will understand Modern Botany practices and approaches with applied technology in Pharmaceutical, Environment & Agricultural areas.
4. Students will become familiar with public policy, biosafety & Intellectual property Rights, issues related to Botany & Plant biotechnology.
5. Students will gain experiences with cultivation, conservation, Gene mapping, molecular techniques, seed bank.
6. Students will demonstrate an understanding of the impact of Botany and science on society.

7. Students will gain skills in Research.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

HEAD
Department of Botany & P.P.
S.G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Zoology

B.Sc.: 2022-23

Programme Outcomes (POs)

1. **Basic laws of Zoology:**
   The basic laws of genetics in Zoology in relation with Mendelian inheritance that is monohybrid ration, dihybrid ratio, incomplete dominance, codominance and multiple alleles can be applied to explained specific natural phenomena in genetics in Zoology undergraduate program.
2. **Thinking skill:**
   Thinking of various physiological processes, characters of animals in classification, types and functions of cell organelles, evolutionary theories with fossil records and linkage concepts of sex determination and inheritance.
3. **Problem solving skills:**
   Problem solving skills in genetic examples to understand the alleles, gametes inherited in progeny with genetic condition and probability in different ways of.
4. **Laboratory skills:**
   Laboratory skills and exposure to a variety of important experiments at appropriate levels that illustrate classification, animal physiology, cell biology and genetics discussed in the lectures. Instrumentation and experimental techniques.
5. **General skills:**
   General knowledge of the development of Zoology and the nature of scientific inquiry, particularly the progression from classical Zoology to the modern Zoology ideas.
6. **Contemporary areas of Zoology inquiry:**
   Contemporary areas of Zoology inquiry as introduced in upper-level Zoology and interdisciplinary elective courses, as well as in faculty-mentored undergraduate research available to all majors who seek this experience.
7. **Communication skills:**
   Written and oral communication skills for dissemination of scientific results in report, article, or oral presentation formats; standard citation methods; ethics in science and scholarship and its importance to scientific inquiry and professionalism.

(*key-topic areas as given in the Mission Statement of the Zoology undergraduate program are: i) Systematics and Diversity of Life- Protists to Chordates; ii) Genetics; iii) Cell Biology and Histology; iv) Molecular Biology; v) Comparative Anatomy and Physiology of Non Chordates.)

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
P. G. Dept. of Zoology
S.G.M. College, Karad (M.S.)

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Zoology

B.Sc.: 2022-23

Programme Specific Outcomes (PSOs)

1. Students will demonstrate proficiency in Zoology and the Zoological concepts needed for a proper understanding of Zoology.
2. Students will demonstrate knowledge of classification of animals, various physiological process, apparatus used in be able to apply this knowledge to analyze a variety of Zoological phenomena.
3. Students will show that they have learned laboratory skills, enabling them to use instruments in a Zoology laboratory and analyze the readings to draw valid conclusions.
4. Students will be capable of oral and written scientific communication and will prove that they can think critically and work independently.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
P. G. Dept. of Zoology
S.G.M. College, Karad (Autonomous)

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Zoology

B.Sc.: 2022-23

Course Outcomes (COs)

1. Students will demonstrate an understanding of core knowledge in Zoology, including the major premises of Animal diversity, animal physiology, cell biology, evolutionary biology, Mendelian and Non-Mendelian Genetics, Modern Zoology, etc.
2. Students will demonstrate Zoology-related practical's as well as written and oral communication skills in communicating Zoology-related topics.
3. Students will design and conduct an experiment (or series of experiments) demonstrating their understanding application of physiological techniques which used for routine medical laboratory processes.
4. Students will understand Zoology related practical's as well as written and oral communication skill in communicating Zoology related practical's.
5. Students will perform different physiological experiment by using laboratory instruments, collecting data and interpretation of result.
6. Students will understand fossil record and interpret their ancient history.
7. Students will demonstrate a thorough understanding of the cell organelles, animal physiology and genetic approach.
8. Students will demonstrate an understanding of the impact of Zoology and science on society.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

Head
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S.G.M. College, Karad (Autonomous)

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Zoology

M.Sc.: Programme Outcome (POs): 2022-23

1. Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms.
2. Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
3. Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
4. Understands the complex evolutionary processes and behaviour of animals
5. Correlates the physiological processes of animals and relationship of organ systems
6. Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species
7. Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.
8. Understands about various concepts of genetics and its importance in human health
9. Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties
10. Apply the knowledge and understanding of Zoology to one's own life and work
11. Develops empathy and love towards the animals

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

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S.G.M. College, Karad (Autonomous)

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad
(An Autonomous College)
Department of Zoology

M.Sc.: 2022-23

Programme Specific Outcomes (PSOs)

1. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology
2. Analyse the relationships among animals, plants and microbes
3. Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology,Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology
4. Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine.
5. Gains knowledge about research methodologies, effective communication and skills of problem solving methods
6. Contributes the knowledge for Nation building

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

Head
P. G. Dept. of Zoology
S.G.M. College, Karad (Autonomous)

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

Department of Zoology

M.Sc.: 2022-23

Course Outcomes (COs)

1. This course includes basics in Taxonomy, and Biodiversity of animals, plants andmicrobes.
2. Students will get to know the diversity of animals and plants.
3. Students will able to do the classification of animals
4. Students will know the importance of biodiversity in the life of human being.
5. Students will get to know the various methods of conservation of nature.
6. They will know the present status of earth.
7. Students will understand the various pest crops, house hold pests, forest pest, clothpest etc. and damage and control measures.
8. Students will understand the applied aspects of entomology.
9. Students will understand the nutritional significance of insects.
10. Course presents structural and functional aspects of cell and cell organelles.
11. Students will understand the secretary pathway.
12. Students will know the cell cycle and cell signalling.
13. Students will understand the detailed structure of the chromosome
14. Course includes fundamentals of environmental biology, the important aspects ofecology.
15. Students will understand the importance of environmental pollution
16. Students will understand the various components of the ecosystem, food chainfood web etc.
17. Students will understand the biological composition of cell
18. Students will understand the idea of the metabolic process of variousfood components like proteins, carbohydrates, lipids etc
19. Students will understand the various diseases related to metabolism ofcarbohydrates, proteins, & lipids
20. Students will understand biostatistics methods like student't' tests & ANOVAtest etc.
21. Students will understand the various instruments & their working mechanism.
22. Students will understand the methods like TLC, Electrophoresis, HPLC
23. Students will understand the physiology of entire systems of the body.
24. Students will understand the functions of heart, working mechanism of thecirculatory system.
25. Students will understand the endocrine system & the diseases related with theendocrine system.
26. Students will understand the functional mechanism of every system ofthe body.
27. Students will understand the various parasites like Ascaris, Tapeworm,Trypanosoma and Leishmania etc.
28. Students will know the hazardous effects of the parasites on human body.
29 Students will get to know the control measures of parasite

SADGURU GADAGE MAHARAJ COLLEGE KARAD

PRINCIPAL
S. G. M. COLLEGE, KARAD

Head
P. G. Dept. of Zoology
S. G. M. College, Karad (Autonomous)

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE KARAD

(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Program Outcome

Bachelor of Science

in

Microbiology

The syllabus of B.Sc. is framed to give sound knowledge with understanding of Microbiology to undergraduate students at first year of three years of B.Sc. degree course. Students learn Microbiology as a separate subject from B.Sc. I & II. The aim of the programme is to give the students broad theoretical and practical skills in microbiology. This programme covers the principles of various processes associated with the basic principles of microbiology as well as production; recovery of different bio-products derived from microorganisms. The students will be able to discuss the role of microorganisms in industry, as well as to carry out experiments to produce microbial metabolites.

Following are the programme outcomes:

- **Knowledge and understanding:** At the end of this course the students will be able to:

✓ Identify the different types of microorganisms.
✓ Explain the various isolation and identification of microorganisms.
✓ Discuss the methods for the enumeration of different microorganisms
✓ Describe the environmental and nutritional factors affecting the growth of microbes.
✓ Explain different physiological and biochemical parameter of microorganisms.
✓ Select the best conditions and optimization protocol needed for various microbial products

- **Professional and Practical competencies:** At the end of the course, students should be able to:

✓ Conduct experiments related to microbiology and produce microbial metabolites
✓ Identify important pathways needed for growth of microorganisms.
✓ Solve the difficulties related to the microbial growth and identification of certain microorganisms.

- **General and Transferable Skills:** At the end of the course, students will be apple to:

✓ Communicate ideas effectively in oral and written media
✓ Deal with scientific material in English.
✓ Understand microorganisms and their harmful and beneficial role in environment.

➢ **Programme Specific Outcomes (PSO)**

1. **PSO 1:** Basic introduction and techniques used for identification and isolation of Microorganisms.
2. **PSO 2:** Application of knowledge and techniques of various branches of Microbiology
3. **PSO 3:** Scale of the microbiological resources by designing, optimization, preparation and analysis of products required for the society

S. G. M. College Department of Microbiology Karad

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Department of Microbiology
S.G.M. College, Karad

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE KARAD

(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Course Outcome

Bachelor of Science

Part – I

MICROBIOLOGY

SEMESTER I

Paper – I BMiT-101- Introduction and Scope of Microbiology

Students should be able to

1. Learn the fundamental aspects of prokaryotic and eukaryotic cell structures and the differences between them.
2. Describe the scope of Microbiology in various fields.

Paper – II BMiT-102- Bacteriology

1. Study the morphological and cytological characters of the bacterial cell with emphasis on their functionality.
2. Imbibe the basics of stains and staining techniques for comprehensive study of bacteria and other microbes and understand the importance of Gram's staining
3. Learn the mode of action of different chemicals and substances employed as disinfectants for the control of microorganisms.

BMiP 103 – Practical Course

1. Students should know and practice the safety measures while working in the Microbiology laboratory and handling of Microscope.
2. Students should be able to prepare smear and examine bacteria using various staining procedures /techniques.
3. Students should be able to learn to critically observe and record the observations of all experiments.

SEMESTER II

Paper – III BMiT 201- Microbial Physiology

1. Learn the basic concepts of microbial nutrition and the various groups of microorganisms grouped as per their nutritional requirements.
2. Study the concept of culture medium, its types and the components used in it.
3. Understand the techniques employed for isolation of pure culture.
4. Learn the various techniques used for cultivation of anaerobes.

Paper – IV BMiT 202- Biochemistry

1. Study the structure and functions of chemical cellular materials.
2. Imbibe the basics of macromolecules like DNA, RNA and proteins.
3. Understand the essentials of enzymology and the mechanism of various enzymes.
4. Learn the fundamentals of carbohydrates with their structures

BMiP 203 Practical Course

1. Demonstration of laboratory equipments- Colorimeter, Laminar air flow, anaerobic jar, pH meter, electronic balance, colony counter.
2. Preparation and sterilization of nutrients broth, MacConkey's agar, Sabouraud's agar, Rose Bengal agar.
3. Isolation of bacteria by streak plate technique, pour plate technique, Spread plate technique.
4. Qualitative analysis of biomolecules – Carbohydrate And Proteins.

S.G.M. College Department of Microbiology Karad

GADAGE MAHARAJ KARAD

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S.G.M. College, Karad

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE KARAD

(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Course Outcome

Bachelor of Science

Part – II

MICROBIOLOGY

SEMESTER III

Paper – V: BMiT 301 Microbial Physiology and Metabolism

The students should

1. Understand different environmental factors influencing microbial growth.
2. Learn various energy yielding pathways in micro organisms

Paper – VI: BMiT 302 Applied Microbiology

1. Understand the principles for routine bacteriological analysis of water and the significance of municipal water purification process
2. Define Infectious dust, Droplets & Droplet nuclei and understand Sampling methods for microbial examination of air.

BMiP 302 - Microbiology Practical III

1. Learn the effect of environmental factors-temperature, pH, salt on microbial growth and understand the significance of TDT, and decimal reduction time.
2. Learn the growth pattern of bacteria when two sugars are present in the growth medium.
3. Understand the technique for routine Bacteriological analysis of water and learn about methods of screening.

SEMESTER IV

Paper -VII: BMiT 303 Bacteriology and Genetics

Student should be able to

1. Understand structure and functions of different organelles and cytoplasmic inclusions of bacteria.
2. Understand ecological significance and economic importance of different groups of bacteria and learn about nomenclature of bacteria.

Paper – VIII: BMiT 304 Basics in Medical Microbiology and Immunology

1. Classify the disease and understand modes of disease transmissions, process of disease development in host from entry of pathogen to recovery of disease.
2. Understand the principles of diagnosis, prevention and control of disease.

BMiP 303 - Microbiology Practical IV

1. Able to perform Spore staining, Flagella staining, Nucleus staining, PHB granules staining
2. Able to understand Effect of U.V. light on growth of bacteria
3. Isolate *Salmonella* & *Proteus* sp. from clinical sample
4. Detect presence of antibody against *Salmonella* sp. in serum sample by qualitative *widal test.*

S. G. M. College Department of Microbiology Karad

SADGURU GADAGE MAHARAJ COLLEGE KARAD

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S.G.M. College, Karad

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE KARAD

(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Course Outcome

Bachelor of Science

Part – III

MICROBIOLOGY

SEMESTER V

Paper IX- BMiT- 501: VIROLOGY

The students should know

1. The basics of Virology regarding- ubiquitous nature of viruses, their harmful and beneficial nature, discovery and properties of viruses
2. Oncogenesis, with respect to types of cancer and characteristics of cancerous cell and various hypotheses of cancer and emerging viruses.

Paper X- BMiT- 502: IMMUNOLOGY

1. Classification of immune system, different cells and organs of immune system.
2. Molecular mechanism of antibody production and Hypersensitivity types and immunotechniques

Paper XI-BMiT- 503: FOOD AND INDUSTRIAL MICROBIOLOGY

1. Understand the role of microorganism in food poisoning.
2. Learn downstream processing & product recovery of different industrial products.

Paper XII-BMiT- 504: AGRICULTURAL MICROBIOLOGY-I

1. Know physical, Chemical characteristics of soil and types of microorganisms in soil.
2. Know about Biodegradation of hydrocarbon, pesticide and Plant pathology.

Paper XII- BMiT- 505: CELL BIOLOGY-I

1. Understand structure and functions of different organelles and cytoplasmic inclusions of bacteria.
2. Know about signalling mechanism in prokaryotes

Paper XII- BMiT- 506: MEDICAL MICROBIOLOGY

1. Take preventive measures about spread and control of mode of spread , prevention and control of human pathogens.
2. Diagnose the diseases caused by protozoa, nematodes, bacteria, fungi and viruses

BMiP- 508 : Practical Course

1. Understand morphological , cellular, and intra cytoplasmic inclusions of microorganisms
2. Heamtological and Molecular techniques.
3.

BMiP- 509 : Practical Course

1. Analytical techniques used in industrial microbiology.
2. Identification of different pathogenic microorganism from clinical samples.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

S. G. M. College Department of Microbiology Karad

Head,
Department of Microbiology
S.G.M. College, Karad

SEMESTER VI

Paper XIII BMiT- 601: MICROBIAL GENETICS

Students are able to,

1. Get an idea about chromosome and its gene regulation
2. Understand the methods of isolation and detection of mutants

Paper XIV- BMiT- 602: - MICROBIAL BIOCHEMISTRY

1. Properties, lock and key and induced fit hypothesis, explaining mechanism of enzyme action
2. Significance of Km and V max and able to derive MM equation
3. Methods of extraction and purification of enzymes

Paper XV- BMiT- 603: - ENVIRONMENTAL MICROBIOLOGY

1. Understand general characteristics of solid and liquid waste
2. Understand Environmental monitoring and bioremediation

Paper XVI- BMiT- 604: AGRICULTURAL MICROBIOLOGY- II

1. About biofertilizer and bio pesticide production
2. About Types, production, methods of application and uses of biofertilizers and GM crops.

Paper XVI- BMiT- 605: CELL BIOLOGY II (EUKARYOTIC)

1. Learn structure of eukaryotic cell wall, cell membrane
2. Understand in detail different structures and functions of cell organelles and know about signalling mechanism in eukaryotes
3. Know the principle, technique, types of ELISA, FISH and microarray techniques

Paper XVI- BMiT- 606: MEDICAL MICROBIOLOGY

1. Know the morphology, cultural and biochemical characteristics, antigenic structure of mode of spread, prevention and control of selected human pathogens.
2. Basic concept of Chemotherapy, Drug resistanc and Immunoprophylaxis

BMiP- 608 Practical Course

1. Isolation of mutants and extraction of genetic material.
2. Microbial assays

BMiP- 609 Practical Course

1. Determination of environmental parameters of waste
2. Pathological and biochemical analysis of clinical samples

SADGURU GADAGE MAHARAJ COLLEGE KARAD

S. G. M. College Department of Microbiology Karad

Head,
Department of Microbiology
S.G.M. College, Karad

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE KARAD

(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Program Outcome

Master of Science

in

Industrial Microbiology

PROGRAMME OUTCOMES (PO):

PO's describe what students are expected to know or to be able to do by the time of graduation and post-graduation. The following Program outcomes of PG in **Industrial Microbiology** are:

At the end of the program, the students will be able to:

1. Apply knowledge of Industrial Microbiology, in all the fields of learning including higher research and its extensions.
2. Innovate, invent and solve complex microbiological problems in industries using the knowledge of pure and applied Industrial Microbiology.
3. Facilitate in the study of different Fermenters used in industries (pharmaceutical, etc.)
4. Demonstrate risk assessment in Industrial (pharmaceutical), disease spread in Environment.
5. Explain the knowledge of contemporary issues in the field of Industrial Microbiology and applied sciences.
6. Work effectively as an individual, and also as a member or leader in multi-linguistic and multi-disciplinary teams.
7. Adjust themselves completely to the demands of the growing field of Industrial Microbiology by lifelong learning.
8. Effectively communicate about their field of expertise on their activities, with their peer and society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations

PROGRAM SPECIFIC OUTCOME:

PS01: Global level research opportunities to pursue Ph.D. programme targeted approach of CSIR-NET and MH-SET examination.

PS02: Enormous job opportunities at all level of pharmaceutical, food products, life oriented material industries.

PS03: Specific placements in R&D pharmaceutical and allied division.

PS04: develop problem-solving skill and apply them independently in pharmaceutical industry.

PS05: Assimilate complex microbiological ideas and arguments.

PS06: Improve own learning and performance.

PS07: Develop abstract microbiological thinking.

G. M. College Department of Microbiology Karad

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Rayat Shikshan Sanstha's

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(An Autonomous College)

Reaccredited by NAAC with 'A+' Grade

Course Outcome

Master of Science

Part – I

INDUSTRIAL MICROBIOLOGY

SEMESTER I

IM 19– 101: Taxonomy and Cytology of Microorganisms

- Gain adequate knowledge on comparative account of various Microbial divisions
- Study and impart knowledge about the occurrence, distribution, structure and life history of algae, fungi, lichens, yeast.
- Learn the phylogeny and evolutionary concepts in lower group of organisms
- Gain adequate knowledge about classification and modern trends in prokaryotic taxonomy.

IM19 - 102: VIROLOGY

- Understand the architecture of viruses
- Know the methods used in studying viruses
- Discern the replication strategies of representative viruses from the seven Baltimore classes Comprehend the intricate interaction between viruses and host cells
- Understand the interactions between viruses and the host immune system
- Explain vaccine strategies and mechanisms of antiviral drugs and interferons

IM19 – 103: GENETICS AND MOLECULAR BIOLOGY

- Know the terms and terminologies related to molecular biology and microbial
- Understand the properties, structure and function of genes in living organisms at the molecular level
- Explain the significance of central dogma of gene action
- Have a conceptual knowledge about DNA as a genetic material, enzymology, and replication strategies
- Understand the molecular mechanisms involved in transcription and translation
- Describe the importance of split gene and overlapping gene.
- Discuss the molecular mechanisms of homologous recombination.
- Handle and independently work on lab protocols involving molecular techniques PCR, LCR.
- The terms Oncogenes and tumor suppressor genes, and how tumor viruses interact with these products and their intersecting pathways and cause oncogenesis.
- Know how viruses can be used as tools to study biological processes, as cloning vectors and for gene transfer.

IM19 – 104: IMMUNOLOGY

- Demonstrate an understanding of key concepts in immunology.
- Understand the overall organization of the immune system
- Conceptualize how the collection of individual clones of lymphocytes (termed the "immune repertoire") arises from rearrangement within two genetic loci: the Ig gene in B cells and the antigen receptor in T cells.
- Learn how "clonal selection" allows for the expansion of a limited number of antigen-recognizing lymphocytes in response to an specific antigenic stimulus
- Begin to appreciate the significance of maintaining a state of immune tolerance sufficient to prevent the emergence of autoimmunity.
- To understand about Tumor Immunology and help the students to understand its immune prophylaxis and immune therapy.
- To make them understand the salient features of antigen antibody reaction & its uses in diagnostics and various other studies.
- Learn about immunization and their preparation and its importance

IM19 --105 Practical Course

- Study of soil microorganisms
- Study of Fungi, Yeast and Actinomycetes.
- Study of intracytoplasmics inclusions of bacteria and yeasts.

- Study of Chemoautotrophic bacteria.
- Study of bacteriophages and its mutants.
- Cultivation of Viruses.

IM19 --106 Practical Course

- Morphological study of genetic material and its isolation from microorganisms.
- Study of molecular techniques
- Study of immunological techniques

SEMESTER II

IM19 201: TECHNIQUES IN MICROBIOLOGY

- Students will gain a deep understanding of chemical principles, especially those relevant to the microbiology.
- Students will gain theoretical and practical knowledge of experimental methods and analytical instrumentation.
- Students will be able to safely and efficiently select and apply appropriate analytical methods to the analysis of real problems; able to interpret data from analytical methods, and will understand approaches for the validation of these analytical methods used in microbiology.
- Students will gain good laboratory practices and safety measures in microbiology laboratory

IM19 – 202: MICROBIAL PHYSIOLOGY, BIOCHEMISTRY AND METABOLISM

- Describe the concepts of electrolytes and electrolytic dissociation, pH and its biological significance, buffers, Henderson-Hasselbalch equation, biological buffer systems and their importance.
- Understanding the laws of thermodynamics , concepts of entropy, enthalpy and free energy changes and their application to biological systems and various biochemical studies and reactions.
- Conceptual knowledge of aerobic and anaerobic respiration and various intermediary mechanisms involved, oxidative phosphorylation
- Overview of major biomolecules –carbohydrates, lipids, proteins, aminoacids, nucleic acids, classification, structure, function of the above mentioned biomolecules
- Discuss the biosynthesis and the degradation pathways involved.
- Specify the biological significance of biomolecules in metabolism
- Conceptual knowledge of properties, structure, function of enzymes, enzyme kinetics and their regulation ,enzyme engineering, Application of enzymes in large scale industrial processes.

IM19 - 203: MEDICAL MICROBIOLOGY

- This course provides learning opportunities in the basic principles of medical microbiology and infectious disease.
- It covers mechanisms of infectious disease transmission, principles of aseptic practice, and the role of the human body's normal microflora.
- The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body.
- It also provides opportunities to develop informatics and diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases.
- To understand the importance of pathogenic bacteria in human disease with respect to infections of the respiratory tract, gastrointestinal tract, urinary tract, skin and soft tissue.
- Recall the relationship of this infection to symptoms, relapse and the accompanying pathology.

IM19 – 204: MICROBIAL ECOLOGY

- Appreciate the diversity of microorganism and microbial communities inhabiting a multitude of habitats and occupying a wide range of ecological habitats.

- Learn the occurrence, abundance and distribution of microorganism in the environment and their role in the environment and also learn different methods for their detection and characterization
- Competently explain various aspects of environmental microbiology and microbial ecology and to become familiar with current research in environmental microbiology.
- Understand various plant microbes interactions especially rhizosphere, phyllosphere and mycorrhizae and their applications especially the biofertilizers and their production techniques.
- Know the Microorganisms responsible for water pollution especially Water-borne pathogenic microorganisms and their transmission

IM19- 205 Practical Course III

- Enrichment techniques for aerobic and anaerobic bacteria and yeast.
- Study of analytical instruments: Spectroscopy, Chromatography, electrophoresis and Centrifugation
- Biochemical analysis and biochemical pathways of bacterial cells.
- Study on effects of salts and disinfectants.

IM19- 206 Practical Course IV

- Qualitative and quantitative study of different microflora from soil, water and air.
- Study of microbial interactions.
- Study of pathogenic microorganisms from clinical samples.
- Antibiotic sensitivity study on pathogens

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Course Outcome

Master of Science

Part – II

INDUSTRIAL MICROBIOLOGY

SEMESTER III

IM19 – 301: MICROBIAL TECHNOLOGY

The students are able to know,

- Basic fermentation processes, design of various fermenters and their types, different separation techniques and application of fermentation in waste treatment.
- Will able to select industrially important microbes for economic benefits.
- Student will understand fermentation economics.
- Understanding of IPR and patents.

IM19 – 302: FERMENTATION TECHNOLOGY- 1

- Concepts of production of different fermentation products using different raw materials.
- Concepts of production of different microbial metabolites and alcoholic beverages.
- Concepts of production of bacterial vaccines and antisera.
- Microbial transformation

IM19 – 303: ENZYMOLOGY AND ENZYME TECHNOLOGY

- Basic concepts in enzymology.
- Enzyme reaction mechanisms and enzyme kinetics.
- Various applications of enzyme in medicines and industries.
- Use of enzyme as analytical tools.
- Newer techniques and approaches to the application of enzymes.

IM19 - 304: ENTREPRENEURSHIP DEVELOPMENT AND MODERN MANAGEMENT PRACTICES

- Basic concepts, theories and need of Entrepreneurship.
- Objective, Process and Problems of Entrepreneur developments.
- Modern management practices and Quality Management
- Business laws
- Risk management in business.

IM19 - 305: PRACTICAL COURSE

- Enzyme kinetics of some commonly used enzymes.
- Effect of natural factors on enzyme kinetics
- Importance of screening programme in industrial fermentations.
- Enrichment techniques for isolation of industrial important microbes.

IM19 – 306: PRACTICAL COURSE

- Isolation of enzyme producing microbes from suitable source.
- Production of industrially important enzymes, products and bio-fertilizers.
- Estimation and analysis of microbial products.
- Detection of pathogenic and non-pathogenic contaminants.
- Quality control test for market bio-fertilizers.

SEMESTER IV

IM19-401: FERMENTATION TECHNOLOGY-II

The students are able to know

- Microbial production of antibiotics, vitamins and toxoids.
- Production of industrially important products.
- Importance and Production of bio fertilizers.
- Quality control in bio-fertilizers production.

IM19 – 402: FOOD AND DAIRY MICROBIOLOGY

- Importance of food for microorganisms.
- Factors affecting food spoilage.
- Role of microbes in milk and spoilage of milk.
- Production of milk products and fermented foods.
- Concept of probiotics and its use as food.
- Food safety and standards.

IM19-403: QUALITY ASSURANCE AND INDUSTRIAL LAWS

- Concept of Total Quality Management and Quality Standards
- Concepts of various Pharmacopeia
- Law of contracts and business.
- GST and partnership

IM19 – 404: 1NDUSTRIAL WASTE MANAGEMENT

- Different types and Characterization of industrial wastes.
- BOD and COD parameters in industrial waste.
- Methods adopted for industrial waste treatment
- Biological management of industrial waste.
- Waste disposal control and regulations

IM 19– 405: PRACTICAL COURSE

- Quality control test used in dairy industries.
- Characterization of industrial wastes.
- Industrial exposure with *On Job Training*

IM19 – 406: PRACTICAL COURSE

- Importance of research in microbiological studies.
- Evolving new ideas and methodologies for microbial research.
- Preparing presentations and explaining the methodologies adopted for research.

S. G. M. College Department of Microbiology Karad

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Head, Department of Microbiology S.G.M. College, Karad

PRINCIPAL S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(An Autonomous College)

B. Sc. Electronics

Program Outcomes

The Undergraduate Students will reveal...

1. Knowledge of differential equations, vector calculus, complex variables, matrix theory, probability theory, basic study of device properties and network analysis, EM field analysis of electrical and electronics objects.

2. An ability to identify, formulate and solve electrical and electronics problems as well as conduct experiments on electrical and electronics systems, analyze and interpret data.

3. An ability to design electronics systems skills, Critical and analytical thinking skills, Simulating skills, Knowledge on computer hardware and maintenance skills.

4. Skills to use modern industrial tools, software and equipment to analyze and synthesize problems.

5. An ability to visualize and work on laboratory and multidisciplinary tasks.

6. An ability to participate and succeed in competitive examinations and/or seek employment in the industry as well as develop entrepreneurship skills to form a startup.

7. An ability to communicate effectively in both verbal and written form

8. Knowledge of professional and ethical responsibilities.

9. The understanding of impact of industrial solutions on the society and will also be aware of contemporary issues.

10. Confidence for self-education and ability for life-long learning.

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B. Sc. Electronics

Program Specific Outcomes

1. To create graduates with sound knowledge of fundamentals of Electronics, who can contribute towards advancing science and technology and make them ready for life- long learning process.

2. To create graduates with sufficient capabilities in Electronics who can become researchers and developers to satisfy the needs of the core Electronics industry.

3. To develop ability among students to formulate, analyze and solve real life problems faced in Electronics industry as well as prepare students for graduate studies through competitive examinations, enabling them to reach higher echelons of excellence

4. To make the students aware of professional ethics of the Industry, and prepare them with basic soft skills essential for working in community and professional teams.

5. To produce electronic professionals who can be directly employed or start his/her own work as Electronic circuit Designer, Electronics consultant, testing professional, Service engineer and even an entrepreneur in electronic industry.

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Course outcomes

Program:- B. Sc.-I

1. Design & analyze basic electronics components and circuit.
2. Understand the basic theory & mathematical relationships in circuit analysis.
3. Simplify complex Electronics circuits.
4. Analyze the characteristics of semiconductor devices.
5. Design and verify performance of electronics circuit using simulating software.
6. Solve the problems related to inter conversion of number system
7. Design and develop logic circuits
8. Design & analyze combinational logic circuits
9. Design & analyze sequential logic circuits
10. Analyze programmable logic device
11. Design various rectifier circuits, biasing circuit for transistor amplifier
12. Design and develop voltage and current power amplifier, feedback amplifier and oscillators.

Program:- B. Sc.-II

1. Describe basic components of Communication system.
2. Illustrate the importance of Analog and Digital communication.
3. Apply Digital Modulation Technique.
4. Utilize Skills in Radio Communication Technology
5. Design various wave shaping circuits for different applications.
6. Utilize transistor as a switch for Wave-Shaping Circuits.
7. Analyze sweep generators in electronics circuits.
8. Explain and Utilize Timer IC applications
9. Define and Explain parameters of Operational Amplifier.
10. Illustrate various applications using Operational Amplifier.
11. Design various applications using Operational Amplifier.
12. Define and Classify Operational Amplifier as filters.
13. Distinguish microcontrollers based on their features.
14. Identify and illustrate the architectural details of 8051 microcontroller.
15. Utilize instructions of 8051 microcontroller.
16. Design program for data transfer, delay generation, I/O operations and manipulation, arithmetic and logic operations, interfacing of LED, relay.

Program:- B. Sc.-III

Paper IX BET501: Power Electronics Devices and Applications

By the end of this course, the students will be able to:

13. Build and test circuits using power devices such as SCR,IGBT and MOSFET.
14. Analyze and design controlled rectifier, DC to DC converters, DC to AC inverters.
15. Able to design regulated power supplies.
16. Able to understand working Principle of DC and AC Motors.

Paper X: BET502: Linear Integrated Circuits

1. Able to design and develop various analog Op-Amp circuits.
2. Able to design Op-Amp filters of various orders.
3. Avail the skill of design and development of PLL system
4. Able to design Operational amplifier Circuits.

Paper XI: BET 503:8051 Microcontroller Interfacing and Application

1. Avail the skill of write code using embedded C
2. Able to write code for 8051 using C programming
3. Design and test advanced Embedded systems using 8051 microcontrollers
4. Able to perform interfacing of various real world devices

Paper XII BET505:Mechatronics

1. Able to design, fabrication of Mechatronics based systems.
2. Able to design Hydraulic Actuation Systems
3. Design Fault Finding, Mechatronic Systems
4. Implement basic Mechatronics applications.

SEM-VI Paper XIII BET601:Electronic Instrumentation

1. Students will become versatile with basic principles of measurement techniques.
2. Students will get knowledge of various instruments and extend their analytical abilities with exposure to learn and use modern instruments and tools.
3. Students will get detail knowledge of various biomedical instruments Electrodes, other tools and can handle it properly

Paper XIV: BET602: Antennas and Wave Propagation

1. Formulate the wave equation and solve it forum form plane wave
2. Analyze the given wire antenna and its radiation characteristics

3. Identify the suitable antenna for a given communication system
4. Avail the knowledge of Electromagnetic signals

PaperXV:BET603:AdvancedMicrocontroller:PIC

1. Student should design electronic systems using PIC
2. Design and test advanced Embedded systems using PIC microcontrollers
3. Student should perform interfacings of various real world devices
4. Able to implement Electronics in industry

BET605:Industrial Processes control and PLC programming

1. Able to design PLC based application by proper selection and sizing criteria and ladder program.
2. Able understand evolution and architecture of DCS, SCADA architecture.
3. Able to design communication systems in SCADA, develop any application based on SCADA.
4. Able to design Automation Plant programming using Ladder programming Language

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I computer Science

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SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Department of Computer Science

B.Sc. Computer Science (Entire) Program Outcomes (PO's)

Academic Year 2022-2023

- PO1: Apply knowledge of ICT in solving business problems.
- PO2: Learn various programming languages and custom software.
- PO3: Design component, or processes to meet the needs within realistic constraints.
- PO4: Identify, formulate, and solve problems using computational temperaments.
- PO5: Comprehend professional and ethical responsibility in computing profession.
- PO6: Express effective communication skills.
- PO7: Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
- PO8: Knowledge of contemporary issues and emerging developments in computing profession.

Bachelor of Computer Application Program Outcomes (PO's)

Academic Year 2022-2023

After completion of program Students / graduates will be able to:

- Apply knowledge of ICT in solving business problems.
- Learn various programming languages and custom software.
- Design component, or processes to meet the needs within realistic constraints.
- Identify, formulate, and solve problems using computational temperaments.
- Comprehend professional and ethical responsibility in computing profession.
- Express effective communication skills.
- Recognize the need for interdisciplinary, and an ability to engage in life-long learning.
- Knowledge of contemporary issues and emerging developments in computing profession.
- Utilize the techniques, skills and modern tools, for actual development process.

B.Sc. Computer Science (Optional) Program Outcomes (PO's)

Academic Year 2022-2023

After completion of program Students / graduates will be able to:

- **PoI**: Effectively communicating computing concepts and solutions to bridge the gap between computing industry experts and business leaders to create and initiate innovation.
- **Po2**: Effectively utilizing their knowledge of computing principles and mathematical theory to develop sustainable solutions to current and future computing problems.
- **Po3**: Exhibiting their computing expertise within the computing community through corporate leadership, entrepreneurship, and/or advanced graduate study
- **Po4**: Developing and implementing solution based systems and/or processes that address issues and/or improve existing systems within in a computing based industry.

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SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Department of Computer Science

B.Sc. Computer Science (Entire) Program Specific Outcomes (PSO's)

Academic Year 2022-2023

Programme Specific Outcomes

The following student course outcomes describe the skills imparted by our computer science program:

- **Pso1:** Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- **Pso2:** Communicate effectively in variety of professional contexts.
- **Pso3:** Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- **Pso4:** Function effectively as members or leader of a team engaged in activities appropriate to the programs discipline.
- **Pso5:** Design, implement and evaluate a computing –based solution to meet a given set of computing requirements in the context of the programs discipline.
- **Pso6:** Apply computer science theory and software development fundamentals to produce computing based solutions.

Bachelor of Computer Application Program Specific Outcomes (PO's)
Academic Year 2022-2023

- **Pso1**: Students will be able to communicate in written and oral forms in such a way as to demonstrate their ability to present information clearly, logically, and critically.
- **Pao2**: Students will be able the techniques of management accounting.
- **Pso3**: Students will be able to write small-to-mid-size programs on their own. Sufficient programming skills will require use of good practice, e.g., good variable names, good use of computational units, appropriate commenting strategies.

- **Pso4**: Students will be able to use appropriately system design notations and apply system design engineering process in order to design, plan, and implement software systems
- **Pso5**: In a self-selected area of depth in Computing, students will demonstrate a depth of knowledge appropriate to graduate study and/or lifelong learning in that area. Students should be able to read for understanding materials in that area beyond those assigned in coursework.
- **Pso6**: Students will be prepared for a career in an information technology oriented business or industry, or for graduate study in computer science or other scientific or technical fields.

B.Sc. Computer Science (Optional) Program Specific Outcomes (PSO's)
Aeademic Year 2022-2023

- **Pso1**: Students will be able to communicate in written and oral forms in such a way as to demonstrate their ability to present information clearly, logically, and critically.
- **Pso2**: Students will be able to apply mathematical and computing theoretical concepts in solution of common computing applications, such as computing the order of an algorithm.
- **Pso3**: Students will be able to complete successfully be able to program small-to-mid-size programs on their own. Sufficient programming skills will require use of good practice, e.g., good variable names, good use of computational units, appropriate commenting strategies.
- **Pso4**: Students will be able to use appropriately system design notations and apply system design engineering process in order to design, plan, and implement software systems
- **Pso5**: In a self-selected area of depth in Computing, students will demonstrate a depth of knowledge appropriate to graduate study and/or lifelong learning in that area. Students should be able to read for understanding materials in that area beyond those assigned in coursework.
- **Pso6**: Students will be prepared for a career in an information technology oriented business or industry, or for graduate study in computer science or other scientific or technical fields.

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Department of Computer Science

B.Sc. Computer Science (Entire) Course Outcomes (CO's)

Academic Year 2022-2023

Core Java (BCSE-501) –

- **Co1:** Students gain programming knowledge using Java Programming language
- **Co2:** Students gain knowledge of object oriented paradigm in the java programming language.
- **Co3:** Student understand the concepts of exception handling and multithreading.
- **Co4**: Understand the concept of package, interface, multithreading and File handling in java.
- **Co6**: Make use of members of classes found in the Java API.

C# Programming (BCSE-502) –

- **Co1**: know the working environment of C# and ASP.NET basics.
- **Co2**: Understand the module, components and IDE environment of .NET platform.
- **Co3**: Understand the use of C# and ASP.NET controls to develop GUI interface.
- **Co4**: develop the project with database using ODBC, DAO, ADO and visual data manager
- **Co5**: Understand the server side programming using C# and ASP.NET

Software Engineering (BCSE-503) –

- **Co1:** Know develop the software project
- **Co2**: Learn developing methodology of software project
- **Co3**: Understand tools and techniques of software engineering COS 4: Verify and validate the problem of software programming COS 5: Maintain the quality of software project

Advanced Java (BCS-601) –

- **Co1:** Students able to do window programming using swing components.
- **Co2:** Students able to write a programs using JDBC connectivity to access and update database data.
- **Co3:** Students able to develop web based applications using servlet and JSP.

ASP.NET (BCSE-602) –

- **Co1**: know the working environment of ASP.NET basics.
- **Co2**: Understand the module, components and IDE environment of .NET platform.
- **Co3**: Understand the use of ASP.NET controls to develop GUI interface.
- **Co4**: develop the project with database using ODBC, DAO, ADO and visual data manager
- **Co5**: Understand the server side programming using ASP.NET

Software Project Management (BCSE-603) –

- **Co1**: Student will be able to identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.
- **Co2**: Student will be able to manage the scope, cost, timing, and quality of the project, at all times focused on project success as defined by project stakeholders.
- **Co13**: Student will be able to Implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success.
- **Co4**: Student will be able to utilize technology tools for communication, collaboration, information management, and decision support.
- **Co5**: Student will be able to implement general business concepts, practices, and tools to facilitate project success

Machine learning (BSCE-504 & 604)–

- Co1: Students gain knowledge of the basic concepts and techniques of Machine Learning.
- Co2: Develop skills of using recent machine learning software for solving practical problems.
- Co3: Gain experience of doing independent study and research.

Data Communication (BCSE-505) -

- **Co1**: Analyze the requirements for a given organizational structure to select the most appropriate networking architecture.
- **Co2**: Demonstrate design issues, flow control and error control.
- **Co3**: Analyze data flow between TCP/IP model using Application, Transport and Network Layer Protocols.
- **Co4**: Illustrate applications of Computer Network capabilities, selection and usage for various sectors of user community.
- **Co5**: Illustrate Client - Server architectures and prototypes by the means of correct standards and technology.
- **Co6**: Demonstrate different routing and switching algorithms.

Computer Network (BCSE-605) –

- **Co1**: Know the basic of network, network type's reference model and layers in network
- **Co2**: Understand the routing algorithm and protocols that are used in network communication
- **Co3**: Learn the different types of protocols such as RPP, DHCP, ARP, RAP
- **Co4**: Try to tackle various information security techniques to safe guard the valuable information from one end to another
- **Co5**: Apply the concept of networks in various fields.

PHP (BCSE-506 & 606) –

- **Co1:** Writes PHP scripts to handle HTML forms.
- **Co2:** Analyze and solve common web applications using PHP
- **Co3:** Understand how server side programming works on the web server.

English for Communication (AECC-E) –

- **Co1**: Able to Read articles of a general kind in magazines and newspapers
- **Co2:** Participate effectively in informal conversations; introduce themselves and their friends and express opinions in English.
- **Co3:** Comprehend conversations and short talks delivered in English
- **Co4:** Write short essays of a general kind and personal letters and emails in English.

Bachelor of Computer Applications (B.C.A.)
Course Outcomes(Co's)
Academic Year 2022-2023

Management Accounting (21-571) -

- **Co1**: Have a knowledge on preparing Branch and Departmental Accounts
- **Co 2**: Have kill in the procedure for preparing of accounts from incomplete Records.
- **Co 3**: Learn about the partnership Accounting.

E-Commerce (21-572) -

- **Co1:** Understand the basic concepts and technologies used in the field of management info. Systems.
- **Co2**: Have the knowledge of the different types of management information systems.
- **Co3**: Understand the processes of developing and implementing information systems.
- **Co4**: Be aware of the ethical, social, and security issues of information systems.

Computer Network (21-573) -

- **Co1**: Know the basic of network, network type's reference model and layers in network
- **Co2**: Understand the routing algorithm and protoeols that are used in network communication
- **Co3**: Learn the different types of protocols such as RPP, DHCP, ARP, RAP
- **Co4**: Try to tackle various information security techniques to safe guard the valuable information from one end to another
- **Co5**: Apply the concept of networks in various fields.

RDBMS with Oracle (21-574) -

- **Co 1**: Students will be explaining the features of database management systems and relational database.
- **Co 2**: Student will be able to learn to write different SQL queries on relational database.
- **Co 3**: Student will be able to understand transaction concept of database.
- **Co 4**: Student will be able to design the database structure by applying the concepts of Entity-relational model and Normalization.
- **Co 5**: Students will be able to demonstrate the principles behind systematic database design approaches by
- **Co 6**: Studenst will be explore the different concepts relared to database sucrity and access control
- **Co 7**: Students will be able to design the different applications based on the concepts of transaction management, recovery techniques

Visual Programming (21-576) -

- **Co 1**: know the working environment of C# and ASP.NET basics.
- **Co 2**: Understand the module, components and IDE environment of .NET platform.
- **Co 3**: Understand the use of C# and ASP.NET controls to develop GUI interface.
- **Co 4**: develop the project with database using ODBC, DAO, ADO and visual data manager
- **Co 5**: Understand the server side programming using C# and ASP.NET

Strategic Management (21-671) –

- **Co 1**: Students will be able to describe major theories, background work, concepts and research output in the field of strategic management.
- **Co 2**: Students will demonstrate a clear understanding of the concepts, tools & techniques used by executives in developing and executing strategies and will appreciate its integrative and interdisciplinary nature.
- **Co 3**: Students will be able to demonstrate effective application of concepts, tools & techniques to praetical situations for diagnosing and solving organizational problems.
- **Co 4**: Students will be able to demonstrate capability of making their own decisions in dynamic business landscape.
- **Co 5**: Students will be able to develop their capacity to think and execute strategically.

Data Mining and Data Warehousing (21-672) :

- **Co 1**: learn fetch the data easily from large value of data
- **Co 2**: Understand the tools and technique of data mining data warehousing
- **Co 3**: Able to apply data mining and data warehousing techniques in various application and its case studies
- **Co 4**: know the architecture of data ware house and its application
- **Co 5**: understand the concept of Online analytical processing (OLAP) and its implementation.

LINUX OPERATING SYSTEM (21-673) -

On successful completion of the course, a student will be able to:

- **Co 1**: To know the basic concepts of Linux Operating System.
- **Co 2**: Familiar with Linux commands.
- **Co 3**: Understand shell programming
- **Co 4**: Familiar with system adminlstration
- **Co 5**: Understand various types of servers

Java Programing (21-674) -

- **Co 1**. Students gain programming knowledge using Java Programming language
- **Co 2**. Students gain knowledge of object oriented paradigm in the java programming language.
- **Co 3**. Student understand the concepts of exception handling and multithreading.
- **Co 4**: Understand the concept of package, interface, multithreading and File handling in java.
- **Co 5**: Make use of members of classes found in the Java API.

Major Project -

- **Co 1**: It makes the student confident in designing an Online Project
- **Co 2**: Students are trained to meet the requirements of the Industry.

B.Sc. Computer Science (Optional) Course Outcomes (CO's)

Academie Year 2022-2023

Software Engineering (BCST501) –

- **Co1:** Know develop the software project
- **Co2**: Learn developing methodology of software project
- **Co3**: Understand tools and techniques of software engincering COS 4: Verify and validate the problcm of software programming COS 5: Maintain thc quality of software project

Introduction to .NET using C# (BCST502) –

- **Co1**: know thc working environment of C# and ASP.NET basics.
- **Co2**: Understand the module, components and IDE environment of .NET platform.
- **Co3**: Understand the use of C# and ASP.NET controls to develop GUI interface.
- **Co4**: develop the project with database using ODBC, DAO, ADO and visual data manager
- **Co5**: Understand the server side programming using C# and ASP.NET

Advanced Java (BCST503) –

- **Co1**: Students able to do window programming using swing components.
- **Co2**: Students able to write a programs using JDBC to access and update database.
- **Co3**: Students able to develop web basecl applications using servlet and JSP.

Internet of Things (BCST504) –

- **Co1**: Ability to use current techniques, skills, and tools necessary for computing practices.
- **Co2:** Students will be able to understand the working of Operating system.
- **Co3**: Analyze & Classify different types of operating system.
- **Co4**: Students will be able to demonstrate and apply Understand the working of Operating system.

Python Programming (BCST504) –

- **Co1**: Understand Python is a useful scripting language for developers.
- **Co2**: Able to design and program Python applications.
- **Co3**: Able to use lists, tuplcs, and dictionaries in Python programs.
- **Co4**: Identify Python object types.

Multimedia Computing (BCST505) –

- **Co1**: Understand of user interface (UI) and user experience (UX) principlcs

- **Co2**: Technical competences for developing and controlling responsive interfaces that adopt to multiple platforms and devices and enabling various user interaction styles.

E-Commerce (BCST601) –

- **Co1:** Understand the basic concepts and technologies used in the field of management info. Systems.
- **Co2**: Have the knowledge of the different types of management information systems.
- **Co3**: Understand the processes of developing and implementing information systems.
- **Co4**: Be aware of the ethical, social, and security issues of information systems.

Advanced C# Programming (BCST602) –

- **Co1:** Students able to do window programming using swing components.
- **Co2:** Students able to write a programs using JDBC connectivity to access and update database data.
- **Co3:** Students able to develop web based applications using servlet and JSP.

Computer Graphics (BCST603) –

- **Co1**: Understand the basics of computer graphics, different graphics systems and applications of computer graphics.
- **Co2**: Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis.
- **Co3**: Use of geometric transformations on graphics objects and their application in composite form.
- **Co4**: Extract scene with different clipping methods and its transformation to graphics display device.
- **Co5**: Explore projections and visible surface detection techniques for display of 3D scene on 2D screen.
- **Co6**: Render projected objects to naturalize the scene in 2D view and use of illumination models.

Artificial Intelligence (BCST604) –

- **Co1**: Identify and apply suitable intelligent agents for various AI applications.
- **Co2**: Design smart system using different informed search / uninformed search or heuristic approaches.

- **Co3**: Identify knowledge associated and represent it by ontological engineering to plan a strategy to solve given problem.
- **Co5**: Apply the suitable algorithms to solve AI problems.
- **Co6**: Write case studies in Business Analytic and Intelligence using mathematical models.
- **Co7**: Present a survey on applications for Business Analytic and Intelligence.

Web Technology (BCST605) –

- **Co1**. Students are able to analyze a web page and identify its elements and attributes.
- **Co2**. Students are able to create web pages using XHTML and Cascading Style Sheets technologies
- **Co3**. Students are able to develop dynamic web applications and websites.
- **Co2**. Students are able to server side programs to access and update databases.
- **Co3**. Students are able to use .NET 4.5 framework to develop commercial applications.
- **Co4**. Students are able to build interactive web applications using AJAX.

Software Project Management (BCST606) –

- **Co1**: Student will be able to identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in consultation with stakeholders.
- **Co2**: Student will be able to manage the scope, cost, timing, and quality of the project, at all times focused on project success as defined by project stakeholders.
- **Co13**: Student will be able to Implement project management knowledge, processes, lifecycle and the embodied concepts, tools and techniques in order to achieve project success.
- **Co4**: Student will be able to utilize technology tools for communication, collaboration, information management, and decision support.
- **Co5**: Student will be able to implement general business concepts, practices, and tools to facilitate project success

Industrial Project (SECCCSP 610) –

- **Co1**: Students should be able to design and construct a hardware and software system, component, or process to meet desired needs.
- **Co2**: Students are provided to work on multidisciplinary Problems.
- **Co3**: Students should be able to work as professionals, with portfolio ranging from data management, network configuration, designing hardware, database and software design to management and administration of entire systems.

- **Co4** It makes the student confident in designing an Online Project
- **Co5**: Students are trained to meet the requirements of the Industry.

English (AECCCST) –

- **Co1**: Able to Read articles of a general kind in magazines and newspapers
- **Co2:** Participate effectively in informal conversations; introduce themselves and their friends and express opinions in English.
- **Co3:** Comprehend conversations and short talks delivered in English
- **Co4:** Write short essays of a general kind and personal letters and emails in English.

Rayat Shikshan Sanstha's

SADGURU GADAGE MAHARAJ COLLEGE, KARAD

Department of Computer Science

M.Sc. Computer Science Program Outcomes (PO's)

Academic Year 2022-2023

At the end of the Master of Science (Computer Science) Programme, graduating students/graduates will be able to:

- **Po1**: Communicate computer science concepts, designs, and solutions effectively and professionally
- **Po2**: Apply knowledge of computing to produce effective designs and solutions for specific problems
- **Po3**: Identify, analyse, and synthesize scholarly literature relating to the field of computer science Use software development tools, software systems, and modern computing platforms.
- **Po4**: Prepare for aeademic roles through NET/SET/PhD
- **Po5**: Apply design and development principles in the construction of software systems of varying complexity.

M.Sc. Computer Science Program Specific Outcomes (PSO's)

Academic Year 2022-2023

- **Pso1**: Apply and continuously acquire knowledge, both theoretical and applied, related to core areas of computer science
- **Pso2**: Demonstrate the ability to work effectively as a team member and/or leader in an ever-changing professional environment
- **Pso3**: Work productively as computer professionals by demonstrating effective use of oral and written communication, working competently as a member of a team unit, adhering to ethical standards in the profession.

- **Pso4**: Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.
- **Pso5**: Ability to understand the structure and development methodologies of software system.
- **Pso6**: Possess professional skills and knowledge of software design process. Familiarity and practical competence with a broad range of programming language and open source platforms.
- **Pso7**: Be acquainted with the contemporary issues, latest trends in technological development and thereby innovate new ideas and solutions to existing problems.

M.Sc. Computer Science Course Outcomes (PSO's)

Academic Year 2022-2023

Artificial Intelligence (CO19-301) –

- **Co1**: Identify and apply suitable intelligent agents for various AI applications.
- **Co2**: Design smart system using different informed search / uninformed search or heuristic approaches.
- **Co3**: Identify knowledge associated and represent it by ontological engineering to plan a strategy to solve given problem.
- **Co5**: Apply the suitable algorithms to solve AI problems.
- **Co6**: Write case studies in Business Analytic and Intelligence using mathematical models.
- **Co7**: Present a survey on applications for Business Analytic and Intelligence.

Advanced Web Technology (CO19-302) –

- **Co1**: Analyze a web page and identify its elements and attributes.
- **Co2**: Creates web pages using XHTML and Cascading Style Sheets technologies
- **Co3**: Develop dynamic web applications and websites.
- **Co2**: Able to server side programs to access and update databases.
- **Co3**: Able to use .NET 4.5 framework to develop commercial applications.
- **Co4**: Able to build interactive web applications using AJAX.
- **Co5**: Able to build MVC based commercial web applications.

PHP (CO19-303) –

- **Co1**: Writes PHP scripts to handle HTML forms.
- **Co2**: Analyze and solve common web applications using PHP
- **Co3**: Understand how server side programming works on the web server.

Software Quality Assurance (CO19-304) –

- **Co1**: Understand quality management processes.
- **Co2**: Able to distinguish between the various activities of quality assurance, quality planning and quality control.
- **Co3**: Understand the importance of standards in the quality management process and their impact on the final product.

Advanced Data Science (CO19-305) –

By the end of the course, the students will be able to:

- **Co1**: Design and analyze programming problem statements.
- **Co2**: Choose appropriate data structures and algorithms, understand the ADT/libraries, and use it to design algorithms for a specific problem.
- **Co3**: Understand the necessary mathematical abstraction to solve problems.
- **Co4**: Come up with analysis of efficiency and proofs of correctness
- **Co5**: Comprehend and select algorithm design approaches in a problem specific manner.

Network Security Analyst (CO19-306) –

- Co1: Learn fundamentals of cryptography and its application to network security
- Co2: Understand vulnerability analysis of network security.
- Co3: Acquire background on hash functions; authentication; firewalls; intrusion detection techniques.

Internet of Things (CO19-307) –

- **Co1**: Ability to use current techniques, skills, and tools necessary for computing practices.

- **Co2:** Students will be able to understand the working of Operating system.
- **Co3**: Analyze & Classify different types of operating system.
- **Co4**: Students will be able to demonstrate and apply Understand the working of Operating system.

Research Seminar (CO19-401) –

- **Co1**: Study research papers for understanding of a new field, in the absence of a textbook, to summarize and review them.
- **Co2**: Identify promising new directions of various cutting edge technologies.
- **Co3**: Impart skills in preparing detailed report describing the project and results.
- **Co4**: Effectively communicate by making an oral presentation before an evaluation committee

Industrial Project (CO19-402) -

- **Co1**: Students should be able to design and construct a hardware and software system, component, or process to meet desired needs.
- **Co2**: Students are provided to work on multidisciplinary Problems.
- **Co3**: Students should be able to work as professionals, with portfolio ranging from data management, network configuration, designing hardware, database and software design to management and administration of entire systems.
- **Co4:**It makes the student confident in designing an Online Project
- **Co5**: Students are trained to meet the requirements of the Industry.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Head
Department of Computer Science
S.G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
Department of Biotechnology (Entire)
B.Sc.: 2022-2023
Programme Outcome (POs)

The B.Sc. Program of Biotechnology (Entire) at Sadguru Gadage Maharaj College, Karad, started in 2007,

1.	**Basic concepts in Biotechnology:**
	Aims to train students in Biotechnology where engineering and technology principles could be used to probe biological questions or to develop technologies, devices and systems that require substantive expertise in Biology, Agriculture, Pharmaceutical, Industrial, as well as Clinical Research components.
2.	**Thinking skill:**
	The students in this program acquire knowledge, critical thinking skills and experience in conducting cutting edge research. This program develops human capital for advanced scientific research and entrepreneurship.
3.	**Problem solving skills:**
	Problem solving skills and relevant biological technologies which provides a strategic roadmap for India's emergence as a global biotechnology innovation and manufacturing hub, which also highlighted importance of human resource development and need for nurturing tailor-made human capital for advanced strategic research and entrepreneurship
4.	**Laboratory skills:**
	Laboratory skills and exposure to a variety of important experiments at appropriate levels that illustrate phenomena discussed in the lecture classes. Instrumentation and experimental techniques; methods for quantitative analysis of data and measurement uncertainty.
5.	**General skills:**
	General knowledge of the development of biotechnology and the nature of scientific inquiry, particularly the progression from classical biotechnology to the modern biotechnology, ideas of genetic engineering, molecular biology, plant and animal biotechnology, bioinformatics, biochemistry and relativity.
6.	**Contemporary areas of biotechnology:**
	Contemporary areas of biotechnology inquiry as introduced in upper-level biotechnology and interdisciplinary elective courses, as well as in faculty-mentored undergraduate research available to all majors who seek this experience.
7.	**Communication skills:**
	Written and oral communication skills for dissemination of scientific results in report, article, or oral presentation formats, standard citation methods, ethics in science and scholarship and its importance to scientific inquiry and professionalism.
(*key-topic areas as given in the Mission Statements of the Biotechnology (Entire) undergraduate program are: i) Biochemistry, ii) Genetic Engineering, iii) Molecular Biology, iv) Microbiology, v)Plant and Animal Biotechnology, vi)Industrial biotechnology, vii) Experimental methods.)	

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

Co-ordinator
Dept. of Biotechnology
B. Sc. Entire Course
S G.M. College, Karad

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
Department of Biotechnology (Entire)
B.Sc.: 2022-23
Programme Specific Outcomes (PSOs)

Programme Specific Outcomes (PSOs):

PSO1:	Undergraduate students will be able to demonstrate and apply their knowledge of cell biology, biochemistry,microbiology, bioinformatics and molecular biology to solve the problems related to the field of biotechnology.
PSO2:	Undergraduate students will be able to demonstrate and apply the principles of bioprocess engineering in the design,analysis, optimization and simulation of bioprocess operations.
PSO3:	Students will be able to gain fundamental knowledge in animal and plant biotechnology and their applications.
PSO4:	Students will be equipped to understand three fundamental aspects in biological phenomenon: a) what to seek; b) howto seek; c) why to seek?
PSO5:	Student will be able to (a) Describe fundamental molecular principles of genetics; (b) Understand relationship between phenotype and genotype in human genetic traits; (c) Describe the basics of genetic mapping; (d) Understand how gene expression is regulated.
PSO6:	Students will be able to (a) elaborate concepts of biochemistry with easy to run experiments; (b) familiarize with basic laboratory instruments and understand the principle of measurements using those instruments with experiments in biochemistry.
PSO7:	Students will be able to understand various facets of molecular procedures and basics of genomics, proteomics and metabolomics that could be employed in early diagnosis and prognosis of human diseases.
PSO8:	Students will able to applied bioinformatics knowledge in drug designing, genetic engineering and phylogenetic analysis.
PSO9:	Students will be able to gain hands on experience in gene cloning, protein expression and purification. This experience would enable them to begin a career in industry that engages in genetic engineering as well as in research laboratories conducting fundamental research.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

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B. Sc. Entire Course
S G.M. College, Karad

Course Outcomes (COs)

Sr. No.	Name of the course	Course Outcome
1	**Cell Biology**	Sensitize the students to the fact that as we go down the scale of magnitude from cells to organelles to molecules,the understanding of various biological processes becomes deeper and inclusive.
2	**Biochemistry**	Students should be able to: • Gain fundamental knowledge in biochemistry; • knowledge of biochemical principles with specific emphasis on different metabolic pathways and regulators • Understand the molecular basis of various pathological conditions from the perspective ofbiochemical reactions.
3	**Microbiology and Genetics**	To introduce field of microbiology with special emphasison microbial diversity, morphology, physiology and nutrition; methods for control of microbes and host- microbe interactions. Students should be able to • Identify major categories of microorganisms and analyze their classification, diversity, and ubiquity; • Identify and demonstrate structural, physiological,genetic similarities and differences of major categories of microorganisms; • Identify and demonstrate how to control microbialgrowth; • Demonstrate and evaluate interactions betweenmicrobes, hosts and environment.
4	**Immunology**	To learn about structural features of components of immune system as well as their function, development of immune system and mechanisms bywhich our body elicits immune response. It will help Students to predict about nature of immune response that develops against bacterial, viral or parasiticinfection, and prove it by designing new experiments.
5	**Molecular Biology**	Students should be able to understand basics of genetics and classical genetics covering prokaryotic/phage genetics to yeast and higher eukaryoticdomains. On successful completion of this course, student will beable to: • Describe fundamental molecular principles of genetics; • Understand relationship between phenotype and genotype in human genetic traits; • Describe the basics of genetic mapping; • Understand how gene expression is regulated.

6	**Industrial Biotechnology**	Students should be able to: • Appreciate relevance of microorganisms from industrial context; • Carry out stoichiometric calculations and specifymodels of their growth; • Give an account of design and operations of various bioreactors and downstream processes; • Calculate yield and production rates in a biological production process, and also interpret data; • Critically analyze any bioprocess from market pointof view; • Give an account of important microbial/enzymatic industrial processes
7	**Plant Biotechnology**	The objectives of this course are to introduce students to the principles, practices and applications of plant biotechnology, plant tissue culture, plant genomics, genetic transformation and molecular breeding of plants.
8	**Animal Tissue Culture**	To introduce students to the principles, practices andapplication of animal biotechnology in Tissue Engineering, Vaccines and biopharmaceuticals.
9	**Genetic Engineering**	The objectives of this course are to teach students with various approaches to conducting genetic engineering andtheir applications in biological research as well as in biotechnology industries. Genetic engineering is a technology that has been developed based on fundamental understanding of the principles of molecular biology and this is reflected in the contents of this course.
10	**Biostatistics and Bioinformatics**	The objectives of this course are to provide theory and practical experience of the use of common computationaltools and databases which facilitate investigation of molecular biology and evolution-related concepts. Student should be able to : • Develop an understanding of basic theory of these computational tools; • Gain working knowledge of these computational toolsand methods; • Appreciate their relevance for investigating specific contemporary biological questions; • Critically analyse and interpret resultsof their study.
11	**Environmental Biotechnology**	This course aims to introduce fundamentals of Environmental Biotechnology. The course will introducemajor groups of micro-organisms tools in biotechnology and their most important environmental applications. On completion of course, students will be able to understand the use of basic microbiological, molecularand analytical methods, which are extensively used in environmental biotechnology.

12	**Industrial Biotechnology**	The objectives of this course are to introduce students to developments/ advances made in field of microbial technology for use in human welfare and solving problems of the society. On completion of this course, students would develop deeper understanding of the industrial Biotechnology andits applications.
13	**Plant Physiology**	This course will give a broad overview of research and development carried out in phytosecondary metabolitesand their applications.
14	**Research Methodology**	This course will give a broad overview of research and development carried out in industrial setup towards drug discovery. On completion of this course, students should be able to understand basics of R&D in drug discovery and should be able to apply knowledge gained in respective fields ofpharmaceutical industry.
15	**Molecular Marker**	The objectives of this course are to sensitize students about recent advances in molecular biology and variousfacets of molecular medicine which has potential to profoundly alter many aspects of modern medicine. Students should be able to understand various facets of molecular procedures and basics of genomics, proteomicsand metabolomics that could be employed in early diagnosis and prognosis of human diseases.
16	**Projects**	The purpose of this course is to help students organize ideas, material and objectives for their dissertation and to begin development of communication skills and to prepare the students to present their topic of research andexplain its importance to their fellow classmates and teachers. Students should be able to demonstratethe following abilities: • Formulate a scientific question; • Present scientific approach to solve the problem; • Interpret, discuss and communicate scientific results inwritten form; • Gain experience in writing a scientific proposal; Learn how to present and explain their research findingsto the audience effectively.

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B. Sc. Entire Course
S G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomous College)
2022-23
Department of Information Technology
B.com. I.T.

Programme Outcome:
After completing three years for Bachelors in Commerce with I.T.(B.Com I.T.) program:

PO1: Students would gain a through grounding in the fundamentals of Commerce and Information technology.

PO2: The commerce and IT focused curriculum offers a number of subjects and practical exposures which would equip the student to face the modern-day challenges in commerce and business

PO3: This program could provide well trained professionals for the technology and allied industries to meet the well trained manpower requirements.

PO4: Commerce with IT gives a deeper understanding of both Information Technology and Commerce, thereby enabling the budding graduates to pursue careers in either of the two fast-growing areas, viz. IT Industry, Commerce, and Financial sector.

PO5: The graduates will get hands on experience in various aspects of information technology viz. software updation, programme developers, software testing, BPO, web designer.

PO6.The program will help the graduates to take up responsibilities in production, testing, designing and marketing in the information technologies and contribute for the growth of industry.

PO7:To enable students to acquire the knowledge, skills and competence required for successful practice of management and leadership and to help them develop a holistic personality to lead fulfilling personal and professional lives.

PO8:An ability to indentify, formulate and develop solutions to computational challenges.

PO9:To implement software system that meets specified design and performance requirements.

PO10:To work effectively in team to design & implement solutions to computational problems.

GADAGE MAHARAJ COLLEGE KARAD

Head
Dept. of Commerce (I. T.)
S.G.M College, Karad

Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomous College)2022-23
Department of Information Technology
B.com. I.T.

Program Specific Outcome (PSO)

PSO1:.The ability to understand, analyze and develop software programs in the areas related to system software, multimedia, web design, application program, database , graphics and networking for efficient design of technology of varying complexity.

PSO2: On successful completion of this course, the students should have understood Principles & functions of Management, Process of decision making, Modern trends in management process.

PSO3: To enable the students to be aware on the Corporate Accounting in conformity with the provision of the Companies Act.

PSO4: On successful completion of this course, the student should be well versed in the concepts,tools and principles in the field of Economics and Business Management.

PSO5: On Successful Completion of this course the students should have: - E-Commerce , E-Market , EDI , Business Strategies etc.,

PSO6:On Successful Completion of this subject, the students should have understood the functions of Human Resource /Personnel Department, Manpower planning, performance appraisal, Salary administration, Labor Welfare, Industrial Relations etc.

PSO7: Learners will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA, MBA, MCA and other courses.

PO8: The students will have knowledge of advanced programming languages and analytical tools for developing solution of given problems.

PSO9: The student will have rigorous training in experimental support to the theoretical concepts which will lead to strengthening their research work

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

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(An Autonomous College)2022-23
Department of Information Technology
B.com. I.T.

Course Outcomes

Semester-I

Course Name and Code: Accountancy Paper-I (22-151)

CO1: Acquire the knowledge in accounting, system of maintenance of accounts, journal, ledger, Trial Balance and Final Account.

CO2: Preparation and interpretation of financial statements

Course Name and Code: Business Economics-I (22-152)

CO1: Students will be able to understand and identify the economic variables in general business atmosphere.

Course Name and Code: Impression Management Paper-I (22-153)

CO1: Learn the key concepts, principles, findings, and methodological techniques relevant to the study of impression management and self-presentation.

CO2: Learn how to analyze social psychological phenomena in terms of impression management.

CO3. Learn how everyday social events can be better understood through the understanding of impression management.

Course Name and Code: Principles of Business Mauagement (22-154)

CO1: Integrate management principles into management practices.

CO2:Assess managerial practices and choices relative to ethical principles and standards.

CO3:Specify how the managerial tasks of planning, organizing, and controlling can be executed in a variety of circumstances.

Course Name and Code: Fundamental Of Information Technology (22-155)

CO1: Understand basic concepts and terminology of information technology.

CO2: Have a basic understanding of personal computers and their operations.

CO3: Be able to identify issues related to information security.

Semester-II

Course Name and Code: Accountancy Paper-II (22-157)

CO1: Acquire the basic knowledge of the terms such as, single entry system, statement of affairs, departmental accounts, inter departmental transfer, branch accounting, stock and debtors system, depreciation.

CO2: understand the concept of cost and management Accounting.

Course Name and Code: Business Economics-II (22-158)

CO1: **understand the basic concept of business economics**

CO2: **Understand the theories and their application for managerial dicision**

Course Name and Code: Programming in 'C' (22-159)

CO1: Programming languages will acquaint the students with computing knowledge and analyze the problems.

CO2: These languages will also help the students to develop general purpose application based on C Languages.

Course Name and Code: Business Communication Skills (22-160)

CO1. To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar.

CO2. To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.

CO3. To draft effective business correspondence with brevity and clarity.

CO4. To stimulate their Critical thinking by designing and developing clean and lucid writing skills.

CO5.To demonstrate his verbal and non-verbal communication ability through presentations.

Course Name and Code: Principles of Markting.

CO1: define the basic marketing concepts and principles.

CO2: Help the student identify marketing opportunities accruing from a global economy and multiculturalism in order to identify specific ways organizations can take advantage of those opportunities.

Semester-III

Course Name and Code: Accountaney Paper-III (19-351)

CO1:understand the concept of Professional accounting

CO2: understand ratio analysis and working capital management

Course Name and Code: Human Resource Management (19-352)

CO1: Demonstrate an understanding of key terms, theories/concepts and practices within the field of HRM.

CO2:Demonstrate competence in development and problem-solving in the area of HR Management.

CO3:Provide innovative solutions to problems in the fields of HRM.

Course Name and Code: Business Economics -III (19-353)

CO1:understand the concept of business cycle

CO2: understand pricing and different market conditions

Course Name and Code: Business Mathematics (19-354)

CO1: To familiarize the students with basic mathematical tools and the application of the same to business and economic situations.

Course Name and Code: E-Commerce (19-355)

CO1:Understand the basic concepts and technologies used in the field of management information systems.

CO2:Have the knowledge of the different types of management information systems.

CO3: Understand the processes of developing and implementing information systems.

CO4: Be aware of the ethical, social, and security issues of information systems;

Semester-IV

Course Name and Code: Accountancy Paper-IV (19-451)

CO1: understand the basic concept of Audit, Auditing as well as all types of Audit.

CO2: Understand the Audit report verification and valuation of assets.

CO2: understand the basic concept of Income Tax (Income from salary, income from business or profession)

Course Name and Code: Organizational Behaviour (19-452)

CO1:Students will be able to explain the concept of Organisation Design and determine the factors that affect Organisation Design.

CO2: Students will be able to identify the components of Individual Behaviour and apply the concept of Learning, Perception, Attitudes and values.

Course Name and Code: Business Economics -IV (19-453)

CO1:understand the concept and importance of public finance.

CO2: Learner will able to apply the international Trade theories in business

Course Name and Code: Business Statistics (19-454)

CO1: To develop the students ability to deal with numerical and quantitative issues in business

CO2. To enable the use of statistical, graphical and algebraic techniques wherever relevant.

CO3. To have a proper understanding of Statistical applications in Economics and Management.

Course Name and Code: Tally (19-455)

CO1: Demonstrate an understanding of various predefined inventory vouchers to suit the various business requirements and flexibility .

Course Name and Code: Environmental Studies (ENVC7)

CO1: Understand the principles of ecology and major concepts in environmental sciences. CO2: Identify the key concepts in Environmental pollution that apply to air, land and water issues on a global scale and population growth.

CO3: Relate the Socio- Environmental issues and apply them to the analysis or question related to the environment.

CO4: Understand the human rights, women and child welfare in the environment.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD *

Head
Dept. of Commerce (I. T.)
S.G.M. College, Karad

Semester- V

Course Name and Code: Accountancy Paper-V (19-551)

CO1: Understand the Concept and important of Accounting Standards.

CO2: Learner will able to apply the Branch Accounts and their theories.

Course Name and Code: System Analysis & Design (19-552)

CO1: The students will be able to understand the concept of software Engineering & its application areas.

CO2: The course covers the development of information systems and of their software components

Course Name and Code: Enterprise Resource Planning Part I (19-553)

CO1: The students will be able to understand the concept of ERP & its application areas

Course Name and Code: Application Development Tools Part I (19-554)

CO1: The students will be able to understand the knowledge of Dot net programming language & its application areas.

Course Name and Code: Web Technology Part I (19-555)

CO1: The students will be able to understand the knowledge of Web Technology & its application areas.

CO2:This course is intended to teach the basics involved in publishing content on the World Wide Web

Course Name and Code: Lab Course V (19-556)

CO1: The students will be able to understand the knowledge of programming language . NET and Web Designing & its application .

Semester -VI

Course Name and Code: Accountancy Paper-V1 (19-651)

CO1: Understand the concept of Farm Accounting and Liquidation of companies.

CO2: Learner will able to apply the amalgamation absorption and Internal Reconstruction.

Course Name and Code: Software Engineering (19-652)

CO1:Students will be able to decompose the given project in various phases of a lifecycle.

CO2:Students will be able to choose appropriate process model depending on the user requirements.

CO3 Students will be able perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.

CO4: Students will be able to know various processes used in all the phases of the product.

CO5: Students can apply the knowledge, techniques, and skills in the development of a software product.

Course Name and Code: Enterprise Resource Planning Part II (19-653)

CO1: The students will be able to understand the concept of ERP & its various modules with subsystem and their collaboration between Modules in company.

Course Name and Code: Application Development Tools Part II (19-654)

CO1: The students will be able to understand the knowledge of programming language. NET and & its application

CO2:It will give you detailed code and instructions that will help give you the knowledge that lets you code any C# program from scratch.

Course Name and Code: Web Technology Part II (19-655)

CO1: The students will be able to understand the knowledge of Web Technology & its application areas

CO2:This will also expose students to the basic tools and applications used in Web publishing.

Course Name and Code: Project Work (19-656)

CO1: The students will be able to understand to create a software Project based on IT applications.

CO2:apply fundamental and disciplinary concepts and methods in ways appropriate to their principal areas of study.

CO3:demonstrate skill and knowledge of current information and technological tools and techniques specific to the professional field of study.

SADGURU GADAGE MAHARAJ COLLEGE * KARAD *

Head
Dept. of Commerce (I. I.)
S.G.M College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

PO, PSO

Hotel Management

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Hotel Management and Catering Technology

Program Specific Outcomes of the Course

Focus of employability/ entrepreneurship

The students are given training related to hotel management and catering technology which enable them to get employability in related industry. The syllabus is designed to cater need of hotel industry with special focus on kitchen, restaurant, front office, tourism etc.

Skill Development

Following skills are provided:-

Kitchen training, food production, food and beverage service, tourism and hospitality, personality development, general accounting techniques in hotel management, fundamentals of computers etc.

Sadguru Gadage Maharaj College HOTEL MANAGEMENT Karad

Dr. SandipV. Mahamuni
Coordinator
Hotel Management and Catering Technology

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

Department of Hotel Management and Catering Technology

Program Outcomes of the Course

1. Syllabus is developed focusing skill development related to Hotel Management and Catering Industry.
2. MOU's with star Hotels for better practical experience.
3. Students are given training of advanced kitchen, bakery and confectionary, restaurant, front office and reception.
4. Students are well acquainted with subjects under general education component and skill education component.
5. Students get special industrial training of hotel and catering technology by visit to reputed star hotels.
6. Enrichment of extracurricular activities by arrangement of Food Festival, Diwali Festival, Outdoor and Indoor food competitions etc.
7. Special training by arranging guest lectures.

Sadguru Gadage Maharaj College HOTEL MANAGEMENT Karad

Dr. Sandip V. Mahamuni
Coordinator
Hotel Management and
Catering Technology

SADGURU GADAGE MAHARAJ COLLEGE KARAD

Rayat Shikshan Sanstha's

Sadguru Gadage Maharaj College, Karad

(Autonomous College)

Department of Hotel Management and Catering Technology

Subject wise Specific Outcomes

B.Voc. Part – I, Semester (I)

Sr. No.	Paper No. & Code	Name of Paper	Outcomes
1	HMCT22 - 1	Business Communication – I	Students will able to: - 1) Boost their word power. 2) Converse in formal situation. 3) Write an application letter in a proper way. 4) Present information using graphs and charts. 5) Stimulate their confidence to face an interview.
2	HMCT22 - 2	Fundamentals of Food Science – I	Students will able to understand:- 1) Concept of food, objectives of food and functions of food. 2) Basic food groups and selection of food. 3) Food preparation and storage of food. 4) Traditional cooking methods.
3	HMCT22 - 3	Food Production – I	Students will able to learn:- 1) History of cookery, kitchen uniform, and safety procedure for handling equipments in kitchen. 2) Kitchen staff duties and responsibilities. 3) How to use tools and equipments in kitchen. 4) Aims and objectives of cooking food.
4	HMCT22 - 4	Food and Beverage Service – I	Students will study:- 1) Introduction of food and beverage industry. 2) Different types of outlets. 3) Auxiliary areas of food outlets. 4) Different types of food and beverage service equipments. 5) Food and beverage service staff duties and responsibilities.
5	HMCT22 - 5	Front Office Operation – I	At the end of course students will able to:- 1) Know about hotel industry. 2) Learn about classification of hotels. 3) Study front office staff duties and responsibilities. 4) Understand types of rooms and room rate. 5) Learn about reservation process.

6	HMCT22 - 6	Laboratory Work: Food Production – I	Students will able to learn:- 1) Food preparation methods. 2) Use of different types of cooking methods. 3) Basic Indian masala's and gravis. 4) Basic stocks, soups and sauces.
7	HMCT22 - 7	Laboratory Work: Food and Beverage Service – I	1) Students learn restaurants etiquettes. 2) Students practices how to carry tray, how to serve water, how to handle service gear etc. 3) Students learn how to serve hot and cold non alcoholic beverages.
8	HMCT22 - 8	Laboratory Work: Front Office Operation – I	1) Students learn how to handle telephone and telephone etiquettes. 2) Students studied handling room keys. 3) Students learn handling guest enquires, guest mails and guest messages.
9	HMCT22 - 9	Project	Students choose any of the subject related to hospitality industry and study the subject, and collect information for project.

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Hotel Management and Catering Technology

Subject wise Specific Outcomes

B.Voc. Part – I, Semester (II)

Sr. No.	Paper No. & Code	Name of Paper	Outcomes
1	HMCT22 10	Business Communication – II	Students will able to: - 1) Participate in group discussion. 2) Draft effective business correspondence. 3) Negotiate with customers in healthy way. 4) Promote a product or service in English language. 5) Market product or service using pamphlet, hoardings etc.
2	HMCT22 – 11	Fundamentals of Food Science – II	Students will able to understand:- 1) Structure, composition and importance of cereal grains. 2) Types of cereals used in cooking. 3) Factors Affecting cooking time of pulses and legumes. 4) Types and composition of Nuts and Oil seeds. 5) Effect of heat, acid and alkali on fruits and vegetable.
3	HMCT22 - 12	Food Production – II	Students will able to learn:- 1) Rules of stock making table. 2) Recipes of 1 liter of various stocks (White, brown. fish and vegetable) 3) Classification & uses of sauces. 4) Aim of soup making, Classification of soups Cream, Puree, Valute, Chowder, Consommé, National soups. 5) Popular Gravies used in Indian Cooking - White, Brown, Tomato, Green, Moghlai.
4	HMCT22 – 13	Food and Beverage Service – II	Students will study:- 1) Types of Meals- Breakfast, Brunch, Lunch, Hi Tea, Dinner, Supper. 2) Types -Ala Carte & Table D'hote, Menu Planning. 3) Non-alcoholic Beverages- Stimulating, Nourishing Health drinks, Refreshing Juices, Squashes, Crushes, Syrup, Mineral water & carbonated drinks. 4) Service Procedures of Cigars & Cigarettes.
			Students will able to:- 1) Know about Importance & functions of

5	HMCT22 – 14	Housekeeping Operation – I	housekeeping. 2) How to co-ordinate with other department- front office, kitchen, F & B and other department. 3) Learn about Types of guest room, Amenities & facilities for standard and VIP guest rooms. 4) How to use and store cleaning agent and equipments. 5) Know what key handling procedure is.
6	HMCT22 – 15	Laboratory Work: Food Production – II	1) Students practices 50 % Continental menus. 2) Students understand 30% Indian Menus. 3) Students learn 20 % Break Fast Menus. (Indian & Continental)
7	HMCT22 – 16	Laboratory Work: Food and Beverage Service – II	Students learn : 1) Breakfast Table Layup & Service (Indian, American, English, Continental) Table D'hôtel &A la Carte Cover. 2) How to receiving the guests. 3) Sequence of Service, Crumbing, Clearing, Presenting the bill, Taking an Order -Food & Making a KOT.
8	HMCT22 – 17	Laboratory Work: Housekeeping Operation – I	Students Learn:- 1) Sweeping and Mopping -dry, wet, Polishing of Laminated surfaces, Polishing of Brass Articles, Polishing of Copper articles. 2) Cleaning of Glass surfaces, Cleaning of oil painted surfaces, Cleaning of plastic painted surfaces. 3) Vacuum Cleaning, Bed making, Cleaning of different floor finishes, & use of floor scrubbing machine.
9	HMCT22 - 18	Industrial visit/ Study tour	Visit to star category hotel and see all departments (Food production, Housekeeping, Food and Beverage, Front office) in hotel how works.

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Hotel Management and Catering Technology

Subject wise Specific Outcomes

B.Voc. Part – II, Semester (III)

Sr. No.	Paper No. & Code	Name of Paper	Outcomes
1	Paper XIX HMCT – 19	Fundamentals of Financial Accounting – I	Students will able to: - 1) The programme aims to provide students with a specialist education in accounting and finance. 2) It will give a global perspective on investment markets and asset classes, provide practical as well as theoretical knowledge on the processes and mechanics underlying investment. 3) Build on students' existing numerical skills so that they are able to understand and practice investment-related mathematics.
2	Paper XX HMCT – 20	Computer Fundamentals	Students will able to understand:- 1) Describes the computer and its general features. 2) Distinguish computer types and basic concepts. 4) Explains computers and data processing. 5) Knows the terms of motherboard, CPU, RAM, ROM, BIOS, CMOS and can express with their own words.
3	Paper XXI HMCT - 21	Food Production – III	Students will able to learn:- 1) Students will develop skills to examine a group of vegetables and fruits, and sort them into (1) Vegetable Group and (2) Fruit Group with 90 – 95% accuracy. 2) Identify safe cooking practices and precautions of eggs and egg dishes. 3) Understand classification of fish, selection of fish and cooking of fish. 4) Learn about meat and poultry, their cuts, selection.
4	Paper XXII HMCT – 22	Food and Beverage Service – III	Students will study:- 1) Types of tea services- Full afternoon tea and High tea service. 2) Various types cheese and different types of sandwiches and types of savories. 3) Methods of billing and payment. 4) Methods of mixing cocktail and cocktail making ingredients.

5	Paper XXIII HMCT – 23	Front Office Operation – II	Students will able to:- 1) Know about use of hotel Broachers and tariff card . 2) How to charge room rate and how to apply room rate. 3) Learn about different types of reports. 4) Information of hospitality desk and functions and role. 5) How to handle different types of situations and complaints.
6	Paper XXIV HMCT – 24	Laboratory Work: Food Production – III	1) Students practices 30 % Italian menus. 2) Students understand 30% French Menus. 3) Students learn 20 % Maxican Menus. 4) Students learn 20 % American Menus.
7	Paper XXV HMCT – 25	Laboratory Work: Food and Beverage Service – III	Students learn : 1) About Briefing . 2) How to take order of beverages. 3) Reading of wine label(French and German). 4) Service of cigar and cigarette.
8	Paper XXVI HMCT – 26	Laboratory Work: Front Office Operation – II	Students Learn:- 1) Welcoming and rooming a guest. 2) Handling check-ins (FIT, VIP group &foreigners). 3) Handling of different situations at the reception counter. 4) Handling guest at GRE desk. Handling check-outs.
9	Paper XXVII HMCT - 27	Project	Students choose any of the subject related to hospitality industry and study the subject, and collect information for project

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Hotel Management and Catering Technology

Subject wise Specific Outcomes

B.Voc. Part – II, Semester (IV)

Sr. No.	Paper No. & Code	Name of Paper	Outcomes
1	Paper XXVIII HMCT – 28	Fundamentals of Financial Accounting – II	Students will able to: - 1) Know and apply accounting and finance theory 2) Explain and apply international accounting standards 3) Critically evaluate financial statement information 4) Evaluate and compare different investments
2	Paper XXIX HMCT – 29	Soft Skills and Personality Development	Students will able to understand:- 1) How to connect and work with others to achieve a set task. 2) How to demonstrating clear briefing and listening skills, not being afraid to ask for help and support when necessary. 3) Developing self motivation, raised aspirations and belief in one's own abilities, defining and committing to achieving ones goals. 4) Time and resource management, conflict resolution, teaching and mentoring others.
3	Paper XXX HMCT - 30	Food Production – IV	Students will able to learn:- 1) Principles of baking. 2) Formulas and measurements. Physical and chemical changes during baking. 3) Methods of bread making. Stages in bread making. 4) Method of cake making. Faults and remedies. 5) Role of yeast in baking.
4	Paper XXXI HMCT – 31	Food and Beverage Service – IV	Students will study:- 1) Introduction, definition of wines, Classification, Viticulture and viticulture methods. 2) Food and wine harmony. Wine glasses and equipment 3) Types- wine based and spirit based Aperitifs. 4) Types- cigar and cigarettes. Cigar strengths and sizes.

5	Paper XXXII HMCT – 32	Housekeeping Operation – II	Students will able to:- 1) Daily cleaning of guest room. 2) How to organize maids trolley. 3) Learn about Types of guest room supplies. 4) Procedures for lost and found of guest articles. 5) Procedures for lost hotel articles/ Items.
6	Paper XXXIII HMCT – 33	Laboratory Work: Food Production – IV	1) Students practices 50 % Bakery products. 2) Students understand 50% Brunch Menus.
7	Paper XXXIV IIMCT – 34	Laboratory Work: Food and Beverage Service – IV	Students learn : 1) International cover for French, Chinese, Mexican and Italian menu. 2) Menu design for appetizer, soup, main course etc.
8	Paper XXXV HMCT – 35	Laboratory Work: Housekeeping Operation – II	Students Learn:- 1) Bed making. 2) Daily cleaning of public area. 3) Weekly cleaning of public area.
9	Paper XXXVI HMCT - 36	Industrial visit/ Study tour	Visit to star category hotel and see all departments (Food production, Housekeeping, Food and Beverage, Front office) in hotel how works.

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Hotel Management and Catering Technology

Subject wise Specific Outcomes

B.Voc. Part – III, Semester (V)

Sr. No.	Paper No. & Code	Name of Paper	Outcomes
1	Paper XXXVII HMCT – 37	Principles of Management	Students will able to: - 1) Demonstrate a general knowledge framework and understanding of key functions in management as applied in practice. 2) Obtain through electives in-depth knowledge and understanding in more specific management related areas. 3) Identify and appreciate the ethical issues in management decision areas. 4) Obtain an understanding of how to undertake qualitative and quantitative research and apply this knowledge in the context of a major independent work (e.g. final dissertation).
2	Paper XXXVIII HMCT – 38	Organizational Behavior	Students will able to understand:- 1) Develop skills of organizational behavior. 2) Realize the human behavior values. 3) To know about motivation. 4) To acquire concept of learning. 5) To develop skill in leadership
3	Paper XXXIX HMCT - 39	Food Safety and Hygiene	Students will able :- 1) To enable student to develop the skill of catering science. 2) To enable student basic understanding of hygiene, microorganism, food adulteration 3) To acquaint the students about food standards in India.
4	Paper XXXX HMCT – 40	Advanced Food Production	Students will able:- 1) To enable students to develop skills in advanced food production. 2) To get knowledge of bread and cheese, menu planning, food cost, food preservation.
5	Paper XXXXI HMCT – 41	Advanced Food and Beverage Service	Students will able to:- 1) To acquaint students about planning and operation, buffet and guéridon 2) To enable student to know basics of development of restaurant structure.
6	Paper XXXXII HMCT – 42	Laboratory Work: Food Safety and Hygiene	1) Food Contamination (Source, Modes and Routes of Bacteria)

			2) Physical Contamination (Preventive Measures Taken) 3) Recognizing types of bacteria found in food poisoning 4) Cross contamination (Preventive measures of cross contamination) 5) Pest control (Preventive measures and types of pest control)
7	Paper XXXXIV HMCT – 43	Laboratory Work: Advanced Food Production	Students learn : 1) Food Carving. 2) Food garnishing and decoration 3) Food adulteration and Food Licenses. 4) Menu planning, Continental menu.
8	Paper XXXXIV HMCT – 44	Laboratory Work: Advanced Food and Beverage Service	Students Learn:- 1) Planning restaurant (Specialty, fast food and coffee shop) with the factors mentioned in the theory. 2) Planning bar mentioned in the theory. 3) Soup service, Menu wise service. 4) Setting of buffet and service procedures. 5) Guest situation handling, Setting of bar with glasses and equipments.
9	Paper XXXXV HMCT - 45	Project	Students choose any of the subject related to hospitality industry and study the subject, and collect information for project

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			fall of different destinations. 3) Mode of transport to reach a certain tourist destination and maps. 4) Knowing about the revenue generated by Indian Tourism Corporation. 5) Facilities provided to the tourists.
7	Paper XXXXXII HMCT – 52	Laboratory Work: Hotel Accommodation Operation	Students learn : 1) Stain removal 2) Laundering Procedure (Starching, Bluing, Ironing) 3) Use of Laundry Equipments 4) Visit to a Laundry 5) Flower Arrangements, various types 6) Pest Control
8	Paper XXXXXIII HMCT – 53	Laboratory Work: Hospitality marketing	Students Learn:- 1) Selling Coupons of Food Festival 2) Marketing for getting Sponsorship of an event 3) Product (food/ other) selling 4) Knowledge of marketing
9	Paper XXXXXIV HMCT - 54	Industrial visit/ Study tour	Visit to star category hotel and see all departments (Food production, Housekeeping, Food and Beverage, Front office) in hotel how works.

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Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomous)
Department of B. Voc. Agriculture

Program Outcome

Bachelor of Vocation (B.Voc.) is launched under the scheme of University Grants Commission for skill development based on higher education leading to Bachelor of Vocation (B.Voc.) Degree,with multiple exits as Certificate/Diploma/Advanced Diploma/Degree under the National Skill Qualification framework (NSQF).The B.Voc. Programme incorporate specific job roles and their National Occupational Standards along broad based general education. B.Voc. Programme has been designed as per National Skill Qualification Framework (NSQF) emphasizing on skill based education. The B.voc Program is for duration of three years consisting of six semesters and is judicious mix of skills relating to professional education and general education on credit based system.

The Objectives of B.Voc degree Programmes are

1. To provide judicious mix of skills relating to a profession and appropriate content of general education.
2. To ensure that the students have adequate knowledge and skills, so that they are work ready at each exit point of the program
3. To provide flexibility to students by means of pre- defined entry and multiple exit points.
4. To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce
5. To provide vertical mobility to students coming out of

a) 10+2 with vocational subjects and b) Community Colleges.

Rayat Shikshan Sanstha's
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Department of B. Voc. Agriculture

Program Specific Outcomes of the Course

Focus of employ ability/ entrepreneurship

The students are given training related to agriculture which enables to get employ ability in related industry. The syllabus is designed to agriculture industry with special focus on agronomy, horticulture, entomology, pathology, animal husbandry and dairy science, genetics and plant breeding, agriculture extension etc.

Skill Development

Following skills are provided:

Organic Farming, Hi-tech Horticulture, Precision Farming, Protected Cultivation, Animal Husbandry, Fisheries, Poultry, Micro-Propagation, Integrated Natural Resource Management, Integrated Pest & Nutrients Management, Production of Quality Seeds, Watershed Management, Post- Harvest Management & Value Addition, Application of Biotechnology, Information and Communication Technologies, Geographic Information System (GIS) mapping and conservation of biodiversity of plants, animals, fish, and microbes

SADGURU GADAGE MAHARAJ COLLEGE * KARAD

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Department of B. Voc. Agriculture

Outcome of the Course

1. Syllabus is developed focusing skill development related to Agriculture industry.
2. MOU's with Agricultural industry for better practical experience.
3. Students are given training.
4. Students are well acquainted with subject under general component and skill education component.
5. Students get special industrial training of agriculture.
6. Enrichment of extracurricular activity by arrangement food festival, training and pruning, layout of orchard, result demonstration, krishi day etc.
7. Special training by arranging guest lecture.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

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Rayat Shikshan Sanstha's
Sadguru Gadage Maharaj College, Karad
(An Autonomons)
Department of B. Voc. Agriculture
Subject Wise Specific Outcomes
B. Voc. Part – I, Semester I

Sr. No.	Paper No & code	Name of Paper	Outcomes
1	Paper I AG 22-101	Business Communication - I	Student will able to : 1. Boost their word power. 2. Converse in formal situation. 3. Write an application letter in a proper way. 4. Present information using graphs and charts. 5. Stimulate their confidence to face an interview.
2	Paper II AG 22-102	Soil Science – I	Student will able to understand: 1. Formation of soil. 2. To know the various properties of soil. 3. Soil genesis, soil forming rock and minerals 4. Soil profile, components of soil.
3	Paper III AG 22-103	Fundamentals of Agronomy	Student will able to learn: 1. To acquire knowledge of agronomy. 2. To know the importance of seed, characters of quality sced. 3. Role of plant nutrient, manures and fertilizers. 4. Irrigation and water management.
4	Paper IV AG 22 -104	Weed Management	Student will study: 1. To study of weed and acquaint with management. 2. Crop rotation and its different crop. 3. Principle and method of weed management. 4. Bio herbicide and their application.

5	Paper V AG 22 – 105	Fundaments of Horticulture	Student will able to: 1. To understand orchard management. 2. To know the various operations carried out in orchard. 3. Medicinal and Aromatic plant.
6	Paper VI AG 22 – 106	Laboratory work: Fundamentals of Agronomy	Student will able to: 1. Identification of seed, crop plant, and different tillage implement. 2. Study of agro-climatic zones. 3. Calculation of plant population, seed rate. 4. study of viability test, practice of seed treatment.
7	Paper VII AG 22 – 107	Laboratory work: Weed Management	Student will able to: 1. Student studied identification of weeds. 2. Student learns herbicides relation to Agrochemical. 3. Method of herbicide and its application.
8	Paper VIII AG 22 – 108	Laboratory work: Fundamental of Horticulture	Student will able to: 1. Student learns identification of horticulture crops and garden tools. 2. Preparation of seed bed or nursery bed. 3. Student learns how to pruning and training of trees.
9	Paper IX AG -22 - 109	Project	Students choose any of the subject related to agriculture industry and study the subject and collect information for project.

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Department of B. Voc. Agriculture
Subject Wise Specific Outcomes
B. Voc. Part – I, Semester II

Sr. No.	Paper No & code	Name of Paper	Outcomes
1	Paper X AG 22 – 201	Business Communication - II	Student will able to: 1. Participate in group discussion. 2. Draft effective business correspondence. 3. Negotiate with customers in healthy way. 4. Promote a product or service in English language. 5. Market product or service using pamphlet, hoardings etc.
2	Paper XI AG 22 – 202	Soil Science – II	Student will able to understand: 1. Soil as a source of plant nutrient and their role. 2. Importance of organic manures. 3. Fertilizers and their classification: N, P, K
3	Paper XII AG 22 – 203	Agricultural Meteorology	To enable student: 1. To acquire knowledge of weather element. 2. To study the weather forecasting. 3. To study the effect of weather elements on crop growth.
4	Paper XIII AG 22 – 204	Pomology	To enable students: 1. To study the cultivation practices of major fruit crop. 2. To study the cultivation practices of minor fruit crop. 3. To study the cultivation practices of nut crop and plantation crop.

5	Paper XIV AG 22 – 205	Entomology and Pathology	To enable students: 1. To Study the insect pest and their control. 2. Student learns body segmentation. 3. To study of plant diseases and their classification.
6	Paper XV AG 22 – 206	Laboratory work: Agricultural Meteorology	Student learn: 1. Instrument and weather data recording. 2. Measurement of air and soil temperature, rainfall, wind speed, wind direction, evaporation, sunshine duration. 3. Visit of Agro meteorological observatory.
7	Paper XVI AG 22 – 207	Laboratory work: Pomology	Student learn: 1. Seed propagation. 2. Scarification and stratification of seeds. 3. Propagation method for fruit crop. 4. Description and identification of fruit crop and plantation crop.
8	Paper XVII AG 22 – 208	Laboratory work: Entomology and Pathology.	Student learn: 1. Method of collection and preservation of insect. 2. Types of larvae and pupa. 3. Study of different various plant diseases.
9	Paper XVIII AG 22 - 209	Industrial visit/Study tour	Visit to Agricultural industry, NRC etc.

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Subject Wise Specific Outcomes
B. Voc. Part – II, Semester III

Sr. No.	Paper No & code	Name of Paper	Outcomes
1	Paper XIX (22-301)	Fundamental of Financial Accounting - I	Student will able to : 1. Meanlng, Nature and Advantages of accounting. 2. Branches of Accounting, Accounting concept. 3. Type of accounts. 4. Rules of journalizing, source documents. 5. Preparation of journal entries and ledger account.
2	Paper XX (22-302)	Animal Science and Diary Technology - I	Student will able to understand: 1. Importance of livestock in National economy. 2. Characteristics and importance of different breeds. 3. Feeding and Management of anmials. 4. Effect of climate change on livestock production.
3.	Paper XXI (22-303)	Crop Production Technology – I	To enable student: 1. To acquire knowledge of practices of different kharif crop. 2. To know the importance of crop as per its category. 3. Production technology of different khaif crops. 4. Morphological description of kharif season crop. 5. Harvesting and threshing of creals, pulses, of seeds and cash crop.
4.	Paper XXII (22-304)	Olericulture	To enable student: 1. To acquire knowledge of various vegetable crops. 2. To study the concept of gardening.

			3. Production technology of different vegetable crops.
5.	Paper XXIII (22-305)	Plant protection - I	To enable student: 1. To acquire knowledge of insect pest of cereals, pulses and cash crops. 2. To study the diseases and management of various crops. 3. Introduction, Nature of damage, symptoms, and controls of major pest and diseases of crop.
6.	Paper XXIV (22-306)	Laboratory work: Crop Production Technology – 1	Student learn: 1. Rice nursery preparation, transplanting of rice, 2. Sowing of different kharif crop. 3. To study the effect of seed size on germination and seedling vigour. 4. Effect of sowing of depth on germination of kharif crop.
7.	Paper XXV (22-307)	Laboratory work: Olericulture	Student learn: 1. Identification of vegetable crop and their seed. 2. Nursery raising. 3. Direct seed sowing and transplanting. 4. Fertilizer application.
8.	Paper XXVI (22-308)	Laboratory work: Plant Protection – 1	Student learn: 1. Identification of important pests on different crops. 2. Study of various life cycle of various insect pests. 3. Collection and preservation of plant diseases. 4. application of pesticide and fungicide.
9.	Paper XXVII (22-309)	Project	Students choose any of the subject related to agriculture industry and study the subject and collect information for project.

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Coordinator,
B.Voc. Agriculture
S.G.M. College, Karad

Rayat Shikshan Sanstha's
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Departmeut of B. Voc. Agriculture
Subject Wise Specific Outcomes
B. Voc. Part – II, Semester IV

Sr. No.	Paper No & code	Name of Paper	Outcomes
1	Paper XXVIII (22-401)	Fundamental of Financial Accounting - II	To enable student: 1. To impact basic accounting knowledge as applicable to business. 2. Utilization of computerized accounting system. 3. Creation of company, group, ledger accounts. 4. Feeding of accounting data receipts,
2	Paper XXIX (22-402)	Soil Science - III	To enable student: 1. To study the mechanism of soil nutrients. 2. To study the problematic soil and their reclamation. 3. Nutrient transport to plants, factors affecting to nutrient availability. 4. Chemistry of NPK and Ca, Mg, S.
3	Paper XXX (22-403)	Crop Production Technology – II	To enable student: 1. To acquire knowledge of practices of different Rabi crops. 2. To know the importance of crops as per its category. 3. Production technology of different Rabi crops. 4. Morphological description of Rabi season crop.
4	Paper XXXI (22-404)	Floriculture	To enable student: 1. To study the production technology of various flower crop. 2. To acquire the knoledge about grading and packaging flower.

			3. Pricipals of landscaping.
5	Paper XXXII (22-405)	Plant protection - II	To enable student: 1. To acquire knowledge of insect pest of vegetable and fruit crop. 2. To study the disease and their management of fruit crops. 3. To study the method of disease control.
6.	Paper XXXIII (22-406)	Laboratory work: Crop Production Technology – II	Student learn: 1. Identification of important Rabi crop. 2. Study of yield contributing characters of Rabi crops. 3. Study of morphological characteristics of Rabi crop.
7.	Paper XXXIV (22-407)	Laboratory work: Floriculture	Student learn: 1. Identification of Ornamental plant. 2. Identification of flowering plant. 3. Planning and layout of garden. 4. Harvesting and postharvest handling of cut and loose flower.
8.	Paper XXXV (22-408)	Laboratory work: Plant protection - II	Student learn: 1. Identification of different insect pests of crops. 2. Study of nature of damage and control measure of vegetable crop pest. 3. Study of symptoms and control measure of fruit crop diseases. 4. Study of preparation of Bordex mixture.
9.	Paper XXXVI (22-409)	Industrial visit/Study tour/Field Visit	Visit to Agricultural industry, NRC etc.

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DEPARTMENT OF BANK MANAGEMENT

2022-23

B.Com. Bank Management

A) Course Outcomes (Cos)

For First Year Students:

1. Students understand the application of principles of economics in the field of managerial decision making.
2. Students should apply economic reasoning to solve problems of business.
3. Students should know conception with Soft Skills & Interpersonal Skills.
4. Students should understand the concept and importance of banking.

For Second Year Students:

1 Students should know HR Compensation Management and International HRM.

2 Students should know about of retail loan products.

3 Students should will apply the macro economic theories in business.

4 Students able to understand the different retail banking services.

B) Program Ontcomes (POs):

1 Students apply the knowledge of basic banking products and services.

2 Awareness among the students about the recent trends in accounting.

3 Acquaint the students with accounts of professionals, analysis of financial statements and working capital management.

4 Students able to understand nature and structure of finance for agricultural allied activities.

C) Program Specific Outcomes (PSOs):

1 Students should apply economic reasoning to solve problems of business.
2 To prepare for competitive examinations.
3 Students should understanding communication Skills.
4 Students should able to conduct lending activities

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Head
Dept. of Bank Management
S.G.M. College, Karad

PRINCIPAL
S. G. M. COLLEGE, KARAD

Rayat Shikshan Santha's

Sadguru Gadage Maharaj College, Karad

Academic Year 2022-23

Department of BBA

Criteria 1.1.1

Program Outcomes (POs):

After completing the BBA course, the students would be able to:

PO1. Identify the different functional aspects of business world and recognize different opportunities of business.

PO2. Acquire the different employability skills, entrepreneurial skills necessary for the professional attitudes.

PO3. Recognize and solve business problem in an ethical manner.

PO4. Demonstrate a global outlook with the ability to identify aspects of the global business and cross cultural understanding.

PO5. Identify the problems and challenges and inculcate the capability to cope with the spontaneous changes.

PO6. Analyze the importance of innovation and research, tackle the contemporary needs and accordingly grab the opportunities.

PO7. Develop effective and oral communication especially in business applications, with the use of appropriate technology.

Program Specific Outcomes (PSOs):

After completing the BBA course, the students would be able to:

PSO1: Acquire the managerial professional attributes and be capable of decision making by applying the knowledge of management discipline.

PSO2: Acquire certain basic skills and aptitudes to be helpful in taking up any particular activity in a business.

PSO3: Explore the entrepreneurial quality, aptitude and start new business venture with innovative ideas.

PSO4: Become knowledgeful in specialized area of management like human resource, finance, marketing, business analytics, computer application etc.

PSO5: To inculcate global view of the industrial and organization establishment and their functions which support the business system.

PSO6: Demonstrate competency in the business disciplines.

PSO7: Prepare students to undertake post-graduation management programme.

Course Outcomes (Cos)

Fundamental of Business Management

After the completion of the course, students will be able to :

1. Know, comprehend, apply, analyze, synthesize and evaluate the basic fundamentals of managing organizations. Students will complete specific activities, as identified in the syllabus, related to each of the four functions of management: planning, organizing, leading and controlling.

2. Develop a working knowledge of fundamental terminology and frameworks in the four functions of management: Planning, Organizing, Leading and Controlling.

3. Analyze organizational case situations in each of the functions of management.

4. Identify and apply appropriate management techniques for managing contemporary organizations

5. Understand Indian ethos in managerial practices and trends in management.

6. Understand skills, abilities, and tools needed to obtain a job on a management track in an organization of their choice

Principles of Marketing

After this course students will be able to:

1.Understand the fundamentals of marketing.

2.Aware of the 4P's & 4C's of marketing mix.

3.Understand the consumer behavior and importance of market segmentation

Micro Economics

After this course, students will be able to :

1.Explain meaning and scope of business economics

2.Apply the concept and theories of demand and consumer behavior.

3.Apply concepts of factor pricing and production function in business practices

4.Understand different markets and its pricing practices

Information Technology in Business Management

After completion of this course ,students will be able to:

1.Understand basics of computer technology.

2.Identify software and networking technology for business.

3.Prepare documents, files and folders with the help of Ms-Words

4.Prepare power point presentations.

5.Analyze Business data using MS – Office.

Insurance and Banking

After completion of this course, students will be able to:

1.Understand insurance concept and development in insurance sector

2.Differentiate different types of insurances

3.Know the relevance of Banking Sector in India

4.Understand different E-Banking and Legal Framework for Banking Sector

Business Communication

After the completion of the course, students will be able to :

1.Apply business communication skills.

2.Develop vocabulary skills.

3.Develop effective writing skills.

4.Learn effective reading skills.

Human Resource Management

After completion f of this course, Student will be able to :

1.Understand the basic concepts of HRM and its functions.

2.Gain the insight of Job Analysis concepts and writing job description and job specification

3.Develop an understanding of human resource planning at different levels and benefits of HR Planning

4.Develop the knowledge to identify effective recruitment sources.

5.Enhance necessary critical thinking skills in order to evaluate the selection process

6.Gain the knowledge of employee maintenance through the provision of Factories Act 1948 and employee welfare facilities.

Accounting for Managers

After completion of this course, students will be able to:

1. Understand the basic concepts & principles of Financial Accounting.

2. Learn Depreciation Methods

3. Understand preparation of Final Accounts for sole proprietorship and partnership firm

Macro Economics

After completion of this course, students will be able to:

1. Understand concepts of national income and demand of supply of money

2. Apply the principles and theories of inflation and business cycle 3.Understand different concepts of public finance

Business Environment

After completion of this course, students will be able to:

1. Understand the concept of Business Environment and its elements.

2. Analysis Economic Environment and Technological Environment

3. Compare Social and Cultural Environment and Natural Environment

4. Analysis Political ,legal environment and Global Environment

Management Information System

After this course, Students will be able to :

1.Understand basics Information System.

2.Understand working and applications of different information systems.

3.Learn study system development lifecycle.

4.Learn analyze the system requirement.

Soft Skills and Personality Development

After the completion of the course, students will be able to :

1.Understand the basics of soft skills.

2.Understand how to develop personality traits and Self-Management.

3.Improve critical thinking skills.

4.Learn about problem management and conflict resolution skills.

Head
Department of B.B.A.
S.G.M. College, Karad

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Syllabus for Bachelor of Science Part – I (B. Sc. - I – Food Science)

(w.e.f. June, 2022)

1. **Title of the course: B.Sc. Part – I (Food Science)**

2. **General Objectives of the Course:**

- ✓ The content of the syllabus have been framed as per the UGC norms.
- ✓ The students are expected to gain knowledge about food science through research, to apply and disseminate knowledge for the next advance education.
- ✓ The practical courses are in relevance to the theory courses to know the Standard Operating Procedures of advanced machineries & their technical knowledge.

3. **Eligibility of course:**
For admission into bachelor's degree of Food Science, one should pass higher secondary school certificate examination i.e. H.S.C. science or 12th science or equivalent examination from a recognized board.

4. **Duration:**
The duration for B.Sc. degree course is of 3 years with semester pattern of 6 semesters.
- B.Sc- Part-I: Semester I & II
- B.Sc- Part-II: Semester III & IV
- B.Sc- Part-III: Semester V & VI

5. **Medium of Instrnction: English**

6. **Structure of the (B.Sc. I) course:**
Duration – One year
B.Sc.-I comprises of total two semesters. In each semester there will be nine theorypapers and Practical examination will be conducted annually.

Subject wise evaluation pattern and credit systcm: B.Sc. Part I, Food Science: Sem.-I and Sem-II As per NEP 2022-23

Syllabus for B. Sc. (Food Science)

Preamble

This syllabus is framed to accommodate the widening horizons of the discipline of food Science and reflect the current changing needs of the students. Students learn Food Science as a separate subject from B.Sc. I, which increase the employability of students in food Industry. The exposure of students to the subject will enable them of independent handling of food processing and packaging unit.

The syllabus is based on basic and applied approach with vigor and depth. At the same time precaution is taken to make the syllabus comparable to the syllabi of other universities and the needs of industries and research. The units of the syllabus are well defined, taking into consideration the level and capacity of students.

Geueral Programme Objectives

1. To nurture the academicians with focus and commitment to their subject.
2. To shape good and informed citizens form the students entering into the program me.
3. To create a skilled work force to match the requirements of the society.
4. To impart knowledge of science is the basic objective of this program me.
5. To develop scientific attitude is the major objective so as to make the students open minded, critical and curious.
6. To develop skill in practical work, experiments and laboratory materials and equipment along with the collectionand interpretation of scientific data to contribute to science.

General Programme Outcomes

1. The students will graduate with proficiency in subject of their choice.
2. The students will be eligible to continue higher studies and abroad in their subject.
3. The students will be eligible to appear for the examination for jobs in government organization.
4. The students will be eligible to apply for jobs with a minimum B.Sc. Food Scienceprogram.

Programme Specific Objectives of the Course

1. To impart knowledge of various areas related to food Science.
2. To enable the students to understand food composition regarding physical, chemical, nutritional and microbiological.
3. To familiarize the students about techniques of variety of foods.
4. To emphasize the importance of food safety, food quality, food laws and regulations.
5. To expose the students to different food processes used in industries, packaging materials and in research field.
6. To prepare the students to accept the challenges in life sciences.
7. To develop skills required in various industries, research labs and in the field of agriculture, food, human health.

Program Specific Outcomes of the Course

After successful completion of B.Sc. Food Science Course student will be able to:

1. Apply critical thinking and analytical evaluation to contemporary food science.
2. Demonstrate practical proficiency in a food analysis laboratory.
3. Identify the conditions, including sanitation practices, pathogens and microorganisms.
4. Explain the principles and current practices of processing techniques and the effects of processing parameters on product quality.
5. Explain the properties and uses of packaging materials.
6. Identify government regulations required for the manufacture and sale of food products.
7. Go for higher studies in the field of food Science.

SADGURU GADAGE MAHARAJ COLLEGE KARAD

For

Co-Ordinator
Department of Food Science
S. G. M. College, Karad

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DEPARTMENT OF MEDICINAL CHEMISTRY

Programmes Outcomes

Programmes outcomes:

- ✓ The program outcomes of bachelor of science in Medicinal Chemistry have been well illustrated in the curriculum designed by the board of studies in Medicinal Chemistry, Shivaji University, Kolhapur as per the university acts guidelines. The curriculum and profession of Medicinal Chemistry is very dynamic and progressive.
- ✓ **Medicinal Chemistry** is a dynamic and interdisciplinary field that aims to integrate fundamental principles of physical, inorganic and organic chemistry, as well as biochemistry, and microbiology to understand and for making pharmaceutical drugs. It also focus on how to optimize delivery of drugs to the body and translate this integrated understanding into new and improved therapies against human disease.
- ✓ Department of Medicinal Chemistry focuses its efforts on creating knowledge through its enterprising spirit to prepare specialists who can contribute to understand the drug manufacture, research and development in drug discovery, pharmaceutical administration/regulation, environmental issues, develop educators and researchers in medicinal sciences.
- ✓ This course does not restrict to just mere passing the university/institution examination but to produce trained qualified chemist as well as pharmacist who could work in areas of modern pharmaceutical industry, biomedical, hospital pharmacies and in community.
- ✓ The course input is for the development of Professional Identity, technical knowledge, planning abilities, professional Communication, Problem analysis/ cognitive ability, entrepreneurship / Leadership skill, Pharmaceutical Ethics, pharmaceutical regulation, social liability, sense of Environment sustainability.

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Co-ordinator
Dept. of Medicinal Chemistry

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DEPARTMENT OF MEDICINAL CHEMISTRY

B. Sc. Medicinal Chemistry, Program Specific Outcome

Sr. No.	After studying the course, the student will be able to…..
1.	Understand basis of theoretical as well as practical knowledge of all core and allied subjects of Medicinal Chemistry includes chemical sciences, physical sciences, life sciences, pharmaceutical sciences, mathematical sciences, and computer sciences.
2.	Learn the drug design, drug delivery, mechanism of action, chemical moiety involved in the dug, drug manufacturing, QA/QC and regulation etc.
3.	Understand and apply operative components of Medicinal Chemistry in pharmaceutical, clinical pharmacy, hospital pharmacy, community pharmacy, pharmaceutical care, and other related areas for the benefit of the use of medications.
4.	Emphasis on drug discovery and design, drug delivery, drug action, drug analysis, cost effectiveness of Medicines (Pharmacoeconomics), drug regulatory affairs etc.
5.	Apply for higher studies in the field of Chemistry, Pharmaceutical Chemistry and Medicinal Chemistry.
6.	To enhance student sense of interest for Medicinal Chemistry and to involve them in an intellectually stimulating experience of learning in a supportive environment.

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Annual Report 2022-23

Program for slow and advanced Learners:

The Diagnostic test to the first year students of all stream were conducted for the purpose to sort the student according to their gain capacity of knowledge. This exam was based on the syllabus of 12th standard. The results were analyzed and students were categorized on the basis of marks into two groups. The minimum scorers were put in Slow learners and higher scorers were put in the Advanced learner group. These two groups are planned for various programs like separate time table and syllabus was designed. The lectures were conducted before or after college hours (extra hours). This program conducted for all subject of all stream including nonprofessional courses. The student attendance and extra curriculum activities were checked through Mentor – Mentee scheme periodically.

For Slow learners:

Following programs had organized.

1. Maintained student's attendance.
2. From the exam point of view, high weightage were revised.
3. Difficult concepts were discussed.
4. All queries regarding study were cleared.
5. Personal issues were solved overcome by counselling.
6. Personal guidance given to students.
7. Organised hands on Training
8. Trail test for more practise

For Advance learners:

1. Attention to extra class attendance of students.
2. Attention to clear all concepts of all topics.
3. Provided with extra study materials like books, e-books and notes.
4. Given personal guidance to improve knowledge from better to best.
5. All queries of students were cleared by teacher.
6. Guided students for higher studies and various opportunities in career.
7. Guest lecturers arranged to the students.
8. Few department organised Quiz, various competition to improve the student knowledge

The Action Taken:-

The remedial coaching of hard subject has been given to the slow learners to improve the subject knowledge by providing extra class. Their knowledge capacity checked through test conducted by respective subjects. The irregularities of students were overcome through mentor – Mentee scheme and personal contact with students. Trail tests were organised for more practise. The students were prepared to face the college exam through continuous practise. The Science departments organised 'Hands on Training' for the student to get ready for earn the money

The Advanced learners were guided through mentor – Mentee scheme. The higher scorer students were introduced to departmental library for extra issues of books. They provided e-Books and research Journals to make an interest in research. To improve their research interest College has been organized workshops and promoted to participate in conferences. Some department worked for that student by providing field visit, project and nearby college organised research activities. The various guest lectures, NET-SET coaching classes has been conducted by few departments. The lecture series of newly emerged entrepreneur were arranged to develop ideas among them.

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Details of teachers having research projects during the year & Details of Departments having research projects funded by Government and/or Non-government agencies during the year

Name of the Principal Investigator/ Co-Investigator (if applicable)	Department of the Principal Investigator/ Co-Investigator	Name of the Funding Agency	Type (Government/Non-Government)	Funds provided (INR in lakhs)	Month and Year of receving the grant	Duration of the Project
Dr. Pendharkar Girish Bhikanrao	Microbiology	SERB	Government	18,000,00	December 20-21	3 Years
Mr. ShriramAbhimanyuShinde	Chemistry	RUSA	Government	115000	Jan-23	2 Years
Dr. AnantaGulabDhodamani	Chemistry	RUSA	Government	110000	Jan-23	2 Years
Mr. Anil Ramesh Baswat	Chemistry	RUSA	Government	105000	Jan-23	2 Years
Mr. PramodDhondiramKumbhar	Chemistry	RUSA	Government	115000	Jan-23	2 Years
Dr. Mrs. ManasiShirishPatil	Botany	RUSA	Government	100000	Jan-23	2 Years
Mr. JayantShankar Kadam	Computer Science	RUSA	Government	90000	Jan-23	2 Years
Dr. Kalpana Narayan Patil	Psychology	RUSA	Government	65000	Jan-23	2 Years
Prof. (Dr.) Anna Kaka Patil	Economics	RUSA	Government	100000	Jan-23	2 Years
Dr. JyotiShivajiraoJadhav	Computer Science	RUSA	Government	30000	Aug-22	2 Years
Dr. Nishigandha P. Bansode	Economics	RUSA	Government	40000	Aug-22	2 Years
Dr. MadakeSurajBajirao	Physics	RUSA	Government	30000	Aug-22	2 Years
Dr. KumbharSarita Suresh	Physics	RUSA	Government	30000	Aug-22	2 Years

Dr. Pratibha S. Patil	Microbiology	Research Initiation Shivaji	Government	200000	Jul-22	2 Years
Dr. Waghmode AhilyaVitthal	Botany	Research Initiation	Government	90000	Jul-22	2 Years
Dr. Vaidehi B. Chopade	Botany	Research Initiation	Government	120000	Jul-22	2 Years
Dr. NaikBabasahebPirgounda	Marathi	RUSA	Government	80,000/-	Mar-22	2 Years
Dr. Pratibha S. Patil	Microbiology	RUSA	Government	120000/-	Mar-22	2 Years
Dr. S. G. Parte	Zoology	RUSA	Government	1,20,000	Mar-22	2 Years
Prof. Dr. D. D. Namdas	Botany	RUSA	Government	80,000	Mar-22	2 Years
Dr. Pisal H. Sunanda	Physics	RUSA	Government	1,00,000	Mar-22	2 Years

Total Amount---3640000

SADGURU GADAGE MAHARAJ COLLEGE KARAD

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The amount of seed money provided by the institution to its teachers for research during the year (INR in lakhs)

Name of the teacher provided with seed money	Amount of seed money	Month and Year of receiving	Link to the policy document for sanction of seed money / grants for research from the institution and link to the sanction letter
C. G. Nagamal	33,500/-	8/8/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
R. R. Patil	15,000/-	8/26/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. N. M. Desai	5,000/-	8/26/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. S. B. Madake	5,000/-	8/26/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. G. B. Pendharkar	10,000/-	8/26/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. A. G. Mulik	10,000/-	8/30/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. S. H. Pisal	33,000/-	10/11/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. A.V. Waghmode	41,000/-	10/19/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link

Dr. I. A. Dhole	33,000/-	1/20/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
C. G. Nagamal	8,000/-	1/24/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
C. G. Nagamal	8,000/-	1/24/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. U. B. More	8,000/-	1/20/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
S. D. Vibhute	35,000/-	1/31/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. P. D. Kumbhar	10,000/-	3/20/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. M. S. Patil	10,000/-	3/21/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. V. S. Shevale	10,000/-	3/21/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. N. M. Desai	10,000/-	3/21/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
C. G. Nagamal	20,000/-	3/24/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link

C. G. Nagamal	19,100/-	3/24/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. A. R. Bhosale	10,000/-	3/24/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. S. T. Charapale	10,000/-	3/27/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. S. V. Yadav	10,000/-	3/27/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. L. A. Gaudadab	10,000/-	3/27/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. I. A. Dhole	2000/-	6/9/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. I. N. Khan	1540/-	11/1/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. Mrs. S.P.Patil	2000/-	12/28/2022	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. A.V. Waghmode	500/-	1/5/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. M. S. Patil	2000/-	1/4/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link

Dr. N. M. Desai	2000/-	1/4/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. A. G. Mulik	2000/-	1/5/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
S. V. Tanpure	2000/-	1/5/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. P. S. Pansakar	2000/-	1/9/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Dr. V. S. Shevale	2000/-	2/4/2023	https://drive.google.com/file/d/1qYPtyuHBmdefGRZapqnw7w5En8ad2I55/view?usp=drive_link
Total 3,81,640/-			

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