A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A), KAKINADA.

COURSE OUTCOMES

2024-25

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A), KAKINADA.

CIRCULAR

Dated: 12-09-2024.

All the Staff and Students are informed that the Course Outcomes, Programme Outcomes and Programme Specific Outcomes for All Programmes for the Academic Year 2024-25 displayed in our College Website (asdgdcw.ac.in).

Forward this Circular to all Student Groups.

PRINCIPAL

PRINCIPAL
A.S.D.GOVT.DEGREE COLLEGE (W)
AUTONOMOUS
KAKINADA

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN
AUTONOMOUS, KAKINADA

DEPARTMENT OF ENGLISH

COURSE OUTCOMES

2024-25

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN
AUTONOMOUS, KAKINADA

Department of English

Course Outcomes 2024- 2025

CO1	CO2	CO3	C04	CO5
Knowledge	Understand	Apply	Analyse	Evaluative

English Syllabus-Semester-I ENG 24101

SEM-I: A COURSE IN COMMUNICATION AND SOFTSKILLS

(B.A. /B. Com./B. Sc. Honours)

Course Outcomes:

- Recognize the importance of Communication in English (CO1)
- Relate English language communication in day-to-day situations, academics and professions. (CO2)
- Use English receptive and productive skills, use grammar effectively in writing and speaking and

  use the tools of communication skills confidently. (CO3)
- Correlate apt vocabulary in written and speech compositions. (CO4)
- Relate English communication to real-life situations. (CO5)

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN AUTONOMOUS, KAKINADA

English Syllabus-Semester-II ENG 24201

SEM-II: A COURSE IN READING AND WRITING SKILLS(B.A. /B. Com./B. Sc.)

- Recognize the importance of Reading Skills (CO1)
- Compare and contrast different types of reading skills, Comprehend different texts ranging from fictitious inputs to authentic materials. (CO2)
- Paraphrase or summarise the lectures or written composition. (CO3)
- Use reading skills effectively and good writing strategies and interpret different types of texts and analyse what is being read (CO4)
- Build up a repository of active vocabulary and relate them to meet the purposes and design constructive writing scripts based on needs (CO5)

A.S.D. Govt. Degree College for Women (A), Kakinada
Department of Hindi

Course Code	TITLE OF THE COURSE
HIN24101	**HINDI SEM I-Gadya Saahity**

COURSE OBJECTIVES

1. To introduce students to various genres of prose.
2. Introduction to the distinguished litterateurs of Hindi language and gaining knowledge of the uniqueness of their works.

to get.

3. To introduce you to the brief history of Hindi literature.
4. To make students study in detail on all aspects of Hindi grammar, because grammar is the backbone of the language.
5. To make students aware of the essential rules of letter writing, use of polite language and effective writing methods.

COURSE OUTCOMES

After successful completion of the course, students will be competent in the following subjects.

1. To be able to understand and analyse various genres of drama like essay, sketch, story.
2. To be aware of the qualities of a true friend, which is very important for graduate level students.
3. To be able to evaluate the social, historical, cultural etc. contexts shown in the read works.
4. To awaken good feelings like religious tolerance, patriotism etc.
5. To become aware of various times and contemporary circumstances through a brief study of Hindi literary history.
6. Understanding of grammatical units and gaining knowledge of effective letter writing.

A.S.D. Govt. Degree College for Women (A), Kakinada
Department of Hindi

Course Code	TITLE OF THE COURSE
HIN24201	HINDI SEM-II-Padya Saahity

COURSE OBJECTIVES:

1. To acquaint students with the social messages expressed in the couplets of Kabir and Tulsi which are relevant even today. To become familiar with the rhythm of the verses of the Sur.

2. Will be able to assess the contribution of major Hindi poets of modern times and their contribution to various literary traditions.

3. To enhance the social life of students through essay.

4. Students should become aware of various government newspapers under purpose based Hindi.

5. Translation and summarization are such arts, by practicing which students will be able to master languages.

COURSE OUTCOMES:

After successful completion of second session, students will be competent in the following subjects.

1. Study of ancient poetry will awaken social consciousness among students and will make them familiar with poetic characteristics.

2. Assessment and analysis of various processes of modern times.

3. Enhancement of social knowledge of students through various essays.

4. By acquiring knowledge of purpose-oriented Hindi, students will be able to prepare themselves for translator posts in government and non-government organizations.

5. Translation practice which is conducted through literary and applied medium. This will prove useful for the students. Linguistic proficiency can be achieved by practicing the art of condensation.

అన్నవరం సత్యవతీ దేవి ప్రభుత్వ మహిళా డిగ్రీ కళాశాల (స్వ)

కాకినాడ

తెలుగు శాఖ

2024-25

అభ్యసన ఫలితాలు

(COURSE OUTCOMES)

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ/బి.కామ్/బిఎస్సి ప్రథమ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక-

జనరల్ తెలుగు సెమిస్టర్- 1 కోర్స్-1

సాహితీ సౌరభము

పాఠ్య ప్రణాళిక పీరియడ్ల సంఖ్య: 60

అభ్యసన ఫలితాలు

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తించడం ఆదికవి నన్నయ కాలంనాటి భాషా, సంస్కృతులను పరిచయం చేయడం

2. జాషువా కాలంనాటి మతపరిస్థితులు, గబ్బిలం కావ్య విశేషాలు తెలియజేయడం ద్వారా సమాజం పట్ల అవగాహన పెంపొందింపజేయడం.

3. సంపన్న కుటుంబాలలోని పరిస్థితులు, ప్రేమ, పరువు వంటివి మనిషిని ఎలా నడిపిస్తాయో అవగాహన కల్పించడం, జమీందారీ వ్యవస్థ ఎలా బీటలు వారుతుందో. మన సమాజంలో పెట్టుబడిదారీ బీజాలు ఎలా నాటుకున్నాయో. అర్థం చేసుకోవడంతో పాటు మన పల్లెటూళ్లు, మానవ సంబంధాలు, ఆస్తి అంతస్తులు వికృత రూపంలో ఎలా సాక్షాత్కరిస్తాయో తెలియజేయడం

5. జీవిత చరిత్ర ప్రక్రియను, దాని విశిష్టతను పరిచయం చేయడం.

6. ప్రాచీన కావ్యభాషలోని వ్యాకరణాంశాలను అధ్యయనం చేయడం, వ్యాకరణాంశాల ద్వారా భాషాసామర్థ్యాన్ని పెంపొందింపజేయడం

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ/బి.కామ్/బిఎస్సి ప్రథమ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక-

జనరల్ తెలుగు సెమిస్టర్- II కోర్స్-2

సృజనాత్మక రచన

పాఠ్య ప్రణాళిక

అభ్యసన ఫలితాలు

1. తెలుగు సాహిత్య అభ్యసన ద్వారా నేర్చుకున్న నైపుణ్యాలను, సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు. విద్యార్థులు భాషాతత్వాన్ని, భాష యొక్క ఆవశ్యకతను, భాష యొక్క ప్రాధాన్యాన్ని గుర్తిస్తారు. మనిషి వ్యక్తిగత జీవనానికి, సామాజిక వ్యవస్థ పటిష్టతకు భాష ప్రధానమని తెలుసుకుంటారు. తెలుగుభాషలోని కీలకాంశాలైన వర్ణం, పదం, వాక్యాల ప్రాధాన్యాన్ని గుర్తిస్తూ వాగ్రూప, లిఖితరూప వ్యక్తీకరణ ద్వారా భాషానైపుణ్యాలను మెరుగుపరచుకోగలరు.

2. అనువాద ఆవశ్యకతను తెలుసుకుంటారు. అనువాద రంగంలో నైపుణ్యం పెరుగుతుంది.

3. సృజన రంగం, ప్రసార మాధ్యమ రంగాల్లో ఉపాది అవకాశాలను అందిపుచ్చుకోగలరు.

4. భాషానైపుణ్యాలను అలవరచుకోవడంతోపాటు వినియోగించడం నేర్చుకుంటారు. భాషణానైపుణ్యాలను సృజనాత్మక రూపంలో వ్యక్తీకరించగలరు. మంచి వ్యాస రచనా నైపుణ్యాలను పెంపొందించుకోగలరు.

5. సాంకేతికత రంగంలో తెలుగు ప్రాధాన్యత గురించి అవగాహన పొందగలరు.

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ ప్రథమ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక-

మైనర్ తెలుగు సెమిస్టర్- II కోర్స్-2

ఆధునిక కవితా పరిచయం

అభ్యసన ఫలితాలు

1. వర్తమాన తెలుగు జీవనంలో ఒక భాగమైన ఆధునిక తెలుగు కవిత్వం తీరు తెన్నులను, సౌందర్యాన్ని విశ్లేషణాత్మకంగా అవగాహన చేసుకుంటారు. దేశభక్తి, సామాజిక అసమానతల నివారణ, మానవతావాదం మొదలైన భావాలు పెంపొందుతాయి.

2. సున్నితమైన భాషను ఉపయోగిస్తూ, ఉత్తమభావాలను ప్రకటించే సామర్థ్యాన్ని అందుకుంటారు. సమాజంలోని అసమానతలను కవిత్వం ద్వారా ఖండించడం, విభిన్న కవితా వస్తువులతో కవిత్వాన్ని రాయడం నేర్చు కుంటారు,

3. వ్యవహారికభాషలో సామాజిక చైతన్యాన్ని ప్రోత్సహించే కవిత్వం రాయడానికి ప్రేరణ పొందుతారు. ఆధునికకాలంలో కవితల్లోను, వస్తువులోను, భావంలోను వచ్చిన మార్పులను గ్రహించడం వల్ల కవిత్వ రచనా విధానం తెలుస్తుంది.

4. దీర్ఘ కావ్య ప్రక్రియను, రచనా విదానాన్ని అర్థం చేసుకుంటారు. శిల్పంలో స్వేచ్ఛను, భావప్రకటనలో వచ్చిన మార్పులను, సమాజానికి కావ్యభాష దగ్గర కావడాన్ని అవగాహన చేసుకుంటారు.

5. కవిత్వ రచనా విధానంలో అలంకారం, ప్రతీక, భావ చిత్రం ఉపయోగాన్ని తెలుసుకుంటారు. కవిత్వంలో ఉన్న వివిధ రకాల వాదాలను, భావ వ్యక్తీకరణను గ్రహిస్తారు.

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ ద్వితీయ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక- 2024-25

తెలుగు సెమిస్టర్- III మైనర్ పేపర్-2

ఆధునిక కావ్యం

అభ్యసన ఫలితాలు

1. అభ్యుదయ కవిత్వ ఉద్యమ నాయకునిగా శ్రీశ్రీ ఎందుకు గుర్తించబడ్డాడో తెలుసుకోగలరు.

2. తెలుగు సాహిత్యంలో అభ్యుదయ సాహిత్య ప్రత్యేకతను తెలుసుకుంటారు.

3. ఈ కవితా ఖండికల ద్వారా అభ్యుదయ కవిత్వ తాత్విక భూమికను, మార్క్సిజమ్ ప్రభావాన్ని అర్థం చేసుకుంటారు.

4. మహాప్రస్థానంలోని సామాజిక తాత్విక దృష్టిని గమనించగలరు.

5. అభ్యుదయ కవిత్వ అభ్యాసం వల్ల కవితా నిర్మాణ శక్తి పెంపొందుతుంది.

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ ద్వితీయ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక- 2024-25

తెలుగు సెమిస్టర్- IV మైనర్ పేపర్-3

తెలుగు నాటకం - పాఠ్య ప్రణాళిక

అభ్యసన ఫలితాలు

1. నాటక సాహిత్య ప్రాధాన్యతను అర్థం చేసుకోవడంతో పాటు ప్రముఖ నాటక కర్తల గురించి తెలుసుకుంటారు.

2. వీరగాథల పరిచయం ద్వారా స్థానిక వీరుల త్యాగాలను గుర్తిస్తారు.

3. ఈ పాఠ్యాంశం ద్వారా సత్య వైశిష్ట్యాన్ని కూడా గమనించగలరు.

4. చరిత్రను నాటకంగా ఎలా మలచాలో తెలుసుకుంటారు.

5. సమాజంలోని సమస్యలను అవగాహన చేసుకుంటారు. సమాజ లోపాల పూరణకు నాటకం దోహదపడే విధానాన్ని తెలుసుకుంటారు.

అన్నవరం సత్యవతీ దేవిప్రభుత్వ మహిళా కళాశాల (స్వయంప్రతిపత్తి) కాకినాడ

బి.ఏ/బి.కామ్/బిఎస్సి ద్వితీయ సంవత్సరం – సి.బి.సి.ఎస్ పాఠ్య ప్రణాళిక- 2024-25

తెలుగు సెమిస్టర్- IV మైనర్ పేపర్-4

తెలుగులో బాల సాహిత్యం

అభ్యసన ఫలితాలు

1. బాలసాహిత్యం గురించి బాల సాహితీవేత్తల గురించి తెలుసుకోగలరు.

2. తెలుగులో ప్రసిద్ధ బాలగేయాలను తెలుసుకొని నేర్చుకోగలరు.

3. బాల కథా సాహిత్యాన్ని అవగాహన చేసుకోగలరు.

4. బుడుగు పాత్ర పరిచయం ద్వారా విశిష్ట బాల పాత్రలతో రచనలు చేసే సామర్థ్యం పెంపొందుతుంది.

5. శతక లక్షణాలను నేర్చుకోవడం ద్వారా శతక రచనా నైపుణ్యాన్ని పొందగలరు.

ASD Government Degree College for Women (A) Kakinada

Department of Sanskrit

2024-2025
Sanskrit Courses offered

Year	Semester	TITLE	Course type (T/L/P)
I	I	**PAPER – I: POETRY, PROSE & GRAMMAR.** Paper code:24102	**T**

A.S.D. Government Degree College for Women (Autonomous) Kakinada
I B.A., B. Com., B.Sc.
Part-1 (ii) Second Language
I SEMESTER SYLLABUS - 2024-25
PAPER – I: POETRY, PROSE & GRAMMAR.

CO1	Students will be self To have Knowledge on Language and Literature of Sanskrit Various genres of Sanskrit Literature
CO2	To have knowledge about the ancient Sanskrit literature- the Grammar aspects of Poetry
CO3	Inculcation of Moral values through teaching of Sanskrit Poetry and Other Literature –such as Subhashitas, Panchatantra and Hitopadesha
CO4	Exploring Indian culture and ethical values through Sanskrit literature

ASD .Government Degree College for Women (A) Kakinada

Department of Sanskrit

2024-2025
Sanskrit Courses offered

Year	Semester	TITLE	Course type (T/L/P)
	II	**PAPER– II: POETRY, PROSE & GRAMMAR- 2023-24** Paper code:24202	**T**

A.S.D. Government Degree College for Women (Autonomous) Kakinada
II B.A., B. Com., B.Sc.
Part-1 (ii) Second
Language II
SEMESTER
SYLLABUS
PAPER– II: POETRY, PROSE & GRAMMAR- 2024-25

CO1	To have Knowledge on the ancient and modern prose Texts in Sanskrit-With emphasis on the Prescribed ones
CO2	To have knowledge on the Writing styles of different Writers in Sanskrit
CO3	To enrich Sanskrit Vocabulary for better understanding and better communication
CO4	To improve functional Communication skills in Sanskrit language, understanding the essentials of Sanskrit grammar and sentence construction

A.S.D GOVT DEGREE COLLEGE FOR WOMEN (A)

(RE-ACCREDITED BY NAAC WITH'B+')

KAKINADA 533002 EASTGODAVARI, ANDHRA PRADESH

Course I INTRODUCTION TO CLASSICAL BIOLOGY

Course code :-BSCB24101

Hours/Week: 5 Total Credits:04

Course Outcomes

CO1: Understand the principles of Nomenclature, classification, conservation of Biodiversity, causes, effects and prevention of environmental pollution.

CO2: Understand the plant taxonomic, physiological and reproductive processes and apply the knowledge of Economic Botany for entrepreneurship.

CO3: Understand the animal classification, physiology, embryonic development and apply the knowledge gained in Economic Zoology to grow into Entrepreneurs.

CO4: Differentiate prokaryotic and eukaryotic cells, understand the basic structure and functions of cell organelles, basic concepts of Molecular Biology and Origin of life.

CO5: Comprehend the chemical principles of Chemistry and apply them in daily life and develop responsibility towards environment by applying the concepts of Green Chemistry.

Course:II INTRODUCTION TO APPLIED BIOLOGY

Course code :-BSCB24102

Course Outcomes:

CO1: Understand the history, ultrastructure, diversity and importance of microorganisms.

CO2: Understand the structure and functions of macromolecules.

CO3: Acquire the knowledge on biotechnology principles and its applications in food and medicine.

CO4: Compare the techniques, tools and their uses in diagnosis and therapy.

CO5: Demonstrate the bioinformatics and statistical tools in comprehending the complex biological data.

Botany SEMESTER II - Course -III

Non-Vascular Plants (Algae, Fungi, Lichens and Bryophytes)

Course code :-BOT24201

Credits-3

Course Outcomes

CO 1 : Compile the general characteristics of algae and their significance in nature.

CO 2 : Compare and contrast the characteristics of different groups of algae. **CO 3 :** Summarise the important features of fungi and their economic value. **CO 4 :** Distinguish the characteristics of different groups of fungi.

CO 5 : Explain the diversity among non-vascular plants and to get awareness on origin and evolution of life.

Course 4: Origin of Life and Diversity of Microbes

Course code :-BOT24202

Course Outcomes

CO 1 : To get awareness on importance of microbes in nature and agriculture. Illustrate diversity of viruses, multiplication and economic value.

CO 2 : Discuss the general characteristics, classification and economic importance of special groups of bacteria.

CO 3 : Explain the structure, nutrition, reproduction and significance of eubacteria.

CO 4 : Evaluate the interactions among soil microbes.

CO 5 : Compile the value and applications of microbes in agriculture

III Semester – Paper – III**Course code :-BOT23301**

Vascular Plants

(Pteridophytes, Gymnosperms and Taxonomy of Angiosperms)

Course Outcomes:

CO 1 :. Infer the evolution of vasculature, heterospory and seed habit in Pteridophytes

CO 2 :. Illustrate the general characteristics of Gymnosperms along with their uses

CO 3 :. Discuss about some Taxonomic aids and their applications in plant systematics

CO 4 :. Compare and contrast the vegetative and floral characteristics of some Angiospermic families

CO 5 : Evaluate the economic value of plant species from the families under the study

Botany Major/Minor Course – III Semester
3.1 : Plant Pathology and Plant Diseases
COURSE CODE : BOT23302
Total hours of teaching – Theory: 45 @ 03 Hrs.

/Week Course Outcomes:

CO 1 :. Identify major groups of plant pathogens and classify plant diseases.
CO 2 :. Explain various stages in infection, plant pathogenesis and responsible factors
CO 3 :. Elaborate the preventive and control measures for plant diseases
CO 4 : Discuss about some diseases of field crops and their management

CO 5 : Discuss about some diseases of horticultural crops and their management

Botany Major Course – III Semester
3.3: Plant Breeding
COURSE CODE: BOT23303
Total hours of teaching – Theory: 45 @ 03 Hrs. /Week.

Course Outcomes:
CO 1 :. Compare and contrast the methods of reproduction and also pollination mechanisms
CO 2 :. Design appropriate pollination method for a given crop plant.
CO 3 : Recommend the best possible breeding method for a crop species.
CO 4 : Propose the steps for production of hybrid varieties of crop plants

CO 5 : Apply molecular techniques to develop a tailored plant variety

Botany Major Course – III Semester
3.4: Plant Biotechnology
COURSE CODE:
BOT23304

Course Outcomes:
CO 1 :. Explain the scientific techniques and tools used in plant tissue culture laboratories
CO 2 :.. Appraise the applications of plant tissue culture in agriculture and horticulture sectors
CO 3 :. Acquire skills related to various aspects in plant tissue culture.
CO 4 : Evaluate the role of transgenic plants in solving certain plant related beneficiary issues

CO 5 : Justify the role of plant biotechnology in bioenergy and phytoremediation

IV Semester

4.1: Anatomy and Embryology of Angiosperms

COURSE CODE: BOT23401

Total hours of teaching – Theory: 45 @ 03 Hrs. /Week.

Course Outcomes:

CO 1 :. Categorize various tissues and evaluate their role in plants
CO 2 : Explain anomalous secondary growth in some plants and justify the value of timber plants.
CO 3 :. Summarize the events in micro-sporogenesis and development of male gametophyte
CO 4 : Discuss the events in mega- sporogenesis and development of female gametophyte

CO 5 : Propose the incidents in embryogenesis of an angiospermic plant specie

IV Semester

Plant Ecology, Biodiversity and Phytogeography

COURSE CODE: BOT23402

Course Outcomes:

CO 1 :. Explain the interactions among the biotic and abiotic components in an ecosystem
CO 2 :.. Summarize the characteristics of a population and a community.
CO 3 Anticipate the environmental problems arising due to climate change.
CO 4 : Assess the value of biodiversity and choose appropriate conservation strategy.

CO 5 : Make a survey on the distribution of various plant groups in a specified geographical area

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Botany Major Course - IV Semester

4.3: Plant Resources and Utilization

Course Outcomes:

CO 1 Explain the significance of plants in human nutrition.
CO 2 List out different plant products used by human beings.
CO 3 Evaluate the commercial plant products and their utilization
CO 4 Discuss the uses of medicinal and aromatic plants for human health care.
CO 5 Appraise the importance of timber and non-timber products for value added products

Course 6A : PLANT PROPAGATION

Course Outcomes

CO 1 : Make use of different plant propagation structures for plant multiplication.
CO 2 : Assess the benefits of Asexual Propagation of Certain economically valuable planta Apomictics and Adventive Polyembroyony
CO 3 : Demonstrate Skills related to Vegetative Propagation Techniques such as Cutting, Layering,
CO 4 : Evaluate and use a suitable Propagation technique for a given plant species
CO 5 : Demonstrate Skills related to Vegetative Propagation Techniques such as Grafting & Budding

Course -7A: Seed Technology

Course Outcomes.

CO 1 : Explain the causes for seed dormancy and methods to break dormancy.

CO 2: Understand critical concepts of seed processing and seed storage procedures.

CO 3 : Acquire skills related to various seed testing methods.

CO 4 : Identify seed borne pathogens and prescribe methods to control them.

CO 5 : Understand the legislations on seed production and procedure of seed certification

PRINCIPAL
A.S.D.GOVT.DEGREE COLLEGE (W)
AUTONOMOUS
KAKINADA

A.S.D GOVT. DEGREE COLLEGE FOR WOMEN (A)

(Re-Accredited by NAAC with'B+')
KAKINADA 533002 EASTGODAVARI, ANDHRA PRADESH
Department Botany & Horticulture
HORTICULTURE

ORNAMENTAL HORTICULTURE

Course Outcomes

CO 1 : Acquire a critical knowledge of ornamental gardening and its significance.
CO 2 : Identify and explain living and non-living components in an ornamental garden.
CO 3 : Acquire skills on propagation and planting of various ornamental plants.
CO 4 : Perform managerial skills related to ornamental gardening.
CO 5 : Demonstrate skills of designing and developing ornamental gardens in public places.

COURSE 7A: COMMERCIAL FLORICULTURE

(Skill Enhancement Course (Elective)

Course Outcomes:

1. Understand the significance of flowers in human life.
2. Acquire skills related to production techniques in floriculture.
3. Explain the breeding techniques of some flowering plants.
4. Demonstrate skills of protected cultivation in floriculture.
5. Perform skills in relation to post-harvest operations in floriculture

PRINCIPAL
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AUTONOMOUS
KAKINADA

A.S.D. Government Degree College for Women (Autonomous) Kakinada

Course Outcomes:

Semester: I

Course: 1: INTRODUCTION TO CLASSICAL BIOLOGY

1. Learn the principles of classification and preservation of biodiversity
2. Understand the plant anatomical, physiological and reproductive processes.
3. Knowledge on animal classification, physiology, embryonic development and thei economic importance.
4. Outline the cell components, cell processes like cell division, heredity and molecular processes.
5. Comprehend the chemical principles in shaping and driving the macromolecules and life processes.

Course: 2: INTRODUCTION TO APPLIED BIOLOGY

1. Learn the history, ultrastructure, diversity and importance of microorganisms.
2. Understand the structure and functions of macromolecules.
3. Knowledge on biotechnology principles and its applications in food and medicine.
4. Outline the techniques, tools and their uses in diagnosis and therapy.
5. Demonstrate the bioinformatics and statistical tools in comprehending the complex biological data.

Semester: II

COURSE 3: - INTRODUCTION TO MICROBIOLOGY

On successful completion of the course, the students will be able to

1. Understand the historical significance of microbiology and the contributions of key scientists.
2. Recognize the classification of microorganisms and their place in the living world.
3. Comprehend the scope and applications of microbiology, including the origin of microbial life and the distinction between eukaryotic and prokaryotic cells.
4. Describe the characteristics of bacteria, archaea, fungi, algae, and protozoa.
5. Describe viruses, including their nature, composition, and diversity in structure.
6. Develop practical skills in aseptic techniques, growth media preparation, isolation methods, and the identification of bacteria and fungi.

COURSE 4: - BACTERIOLOGY AND VIROLOGY

On successful completion of the course, the students will be able to

1. Understand the concept of prokaryotic diversity and taxonomy.
2. Identify and describe the salient features of various bacterial groups
3. Comprehend the discovery, nature, and definition of viruses.
4. Describe the replication processes of specific viruses
5. Comprehend the concept of oncogenic viruses, and role of viruses in the ecosystem.

Semester: III

COURSE 2: - BIOMOLECULES AND ENZYMOLOGY

On successful completion of the course, the students will be able to

1. Understand the classification and properties of carbohydrates, including monosaccharides, disaccharides, polysaccharides, and sugar derivatives.
2. Gain knowledge of lipids and fatty acids, including their classification, structures, functions, and their role in cell signaling and metabolism.
3. Comprehend the structure and functions of amino acids and proteins, including their primary, secondary, tertiary, and quaternary structures.
4. Learn about the structure and functions of nucleic acids, including DNA and RNA, as well as the concept of base composition and nucleic acid- protein interactions. They will also be introduced to the role of vitamins in metabolism.
5. Understand the structure of enzymes, enzyme classification, and mechanisms of action. They will also learn about the factors influencing enzyme activity and various types of enzyme inhibition.

Semester: IV

COURSE 3: - MOLECULAR BIOLOGY AND MICROBIAL GENETICS

By the Completion of the course the learner should able to–

1. Understand the nature of genetic material, its organization in prokaryotes and eukaryotes, and the role of DNA and RNA.
2. Explain the process of DNA replication in prokaryotes and the involvement of enzymes and factors.
3. Recognize the characteristics, types, and applications of extra chromosomal genetic elements such as plasmids and transposons.
4. Differentiate between classical and modern concepts of genes, understand gene structure, and the process of transcription.
5. Comprehend the genetic code, translation process, and regulation of gene expression in bacteria.
6. Define and classify mutations, understand their molecular basis, and gain knowledge of DNA repair mechanisms.
7. Familiarize with genetic recombination in bacteria, including conjugation, transformation, and transduction processes.

COURSE 4: - MICROBIAL PHYSIOLOGY AND METABOLISM

On successful completion of the course, the students will be able to

1. Understand the nutritional requirements of microorganisms and the different methods of nutrient uptake. They will also gain knowledge of different nutritional groups and types of growth media used for microbial cultivation.
2. Comprehend microbial growth, including the definition of growth, generation time, and the different phases of growth. They will also learn about factors influencing microbial growth and methods for measuring it.
3. Gain knowledge of thermodynamics in biological systems, including concepts of free energy, enthalpy, and entropy. They will also learn about ATP structure and properties, oxidation-reduction reactions, and carbohydrate breakdown pathways.
4. Understand microbial respiration, including aerobic and anaerobic respiration, chemoautotrophy, and fermentative modes.
5. Differentiate the processes of oxygenic and anoxygenic photosynthesis

Semester: V (Skill Enhancement Course- Elective)

Food, Agriculture And Environmental Microbiology

Up on completion of the course students able to

1. Demonstrate with the wide diversity of microbes and their spoilage food, food intoxication and food born infections
2. Able to understand principles of food preservation, fermented foods and microbes as food.
3. The student will acquire knowledge on application of microorganisms in agro – environmental fields
4. Get fundamental concepts in principles of plant disease control an industrial application of Microbiology
5. The student will have fundamental concepts in soil microbiology and soil water and aero microbial diversity and microbial interactions Basic concepts in treatment of drinking water.

Management Of Human Microbial Diseases And Diagnosis

Up on completion of the course students able to

1. Develop knowledge and skills on microbiological laboratory skills for identification of pathogens
2. Students will demonstrate the collection of clinical samples
3. Students will get knowledge on staining techniques
4. Students able to perform diagnostic techniques
5. To understand drug resistance

Microbial Biotechnology and r – DNA Technology

Up on completion of the course students able to

1. Students should be able to demonstrate with the wide diversity of microbes and their potential use in medicine, agriculture and industry biotechnology regulation and ethics.
2. Students will get knowledge on restriction endonuclease in r DNA technology and selection of transformed cells
3. Students will get knowledge on cloning vehicles in r DNA technology
4. Student will able to understand gene sequencing methods
5. Students will get knowledge on of genetically modified crops. And role of microorganisms in creation of transgenic animals and plants.

BIOSTATISTICS AND BIOINFORMATICS

Up on completion of the course students able to

1. Understand biological data bases
2. Summarize Searching sequence data bases
3. students able to use appropriate tests for bio variable analysis
4. Able to understand analytical tests and Construction of phylogenetic trees by clustering methods

5. Able to understand protein modelling methods

Microbial Quality Control, Instrumentation And Techniques

Up on completion of the course students able to

1. Develop skills on disinfection of instruments and equipment's in laboratory and Hospitals and documentation
2. To understand the working principle of basic laboratory equipments
3. To understand the techniques like MPN and direct microscopic methods
4. To understand and demonstrate Principles of Microscopy, handling and uses of microscopes
5. To understand and demonstrate the various analytical and separation techniques

Drug Design, Discovery And Itelectual Property Rights (Ipr)

Up on completion of the course students able to

1. Students should be able to understand approaches for drug design, sources of drugs and molecular mechanism of drugs
2. Students should be able to understand drug development process
3. Get knowledge on vaccines, gene therapy and gene based vaccines
4. **S**tudents will get knowledge on outlines of intellectual property rights, ISI and Bio standards
5. Students will understand concepts Bio safety an ethics

A.S.D GOVT. DEGREE COLLEGE FOR WOMEN (A),

(Re- Accredited by NAAC with B Grade)

Jagannaickpur, Kakinada, East Godavari, AP – 533002

Zoology Course Outcomes (2024-2025)

ZOOLOGY SEMESTER-I

COURSE 1-INTRODUCTION TO CLASSICAL BIOLOGY

(Course Code: BSCB24101)

Course Outcomes: On the completion of the course the student should be able to –

CO1: Understand the principles of Nomenclature, classification, conservation of Biodiversity, causes, effects, and prevention of environmental pollution.

CO2: Understand the plant taxonomic, physiological, and reproductive processes and apply the knowledge of Economic Botany for entrepreneurship.

CO3: Understand the animal classification, physiology, embryonic development and apply the knowledge gained in Economic Zoology to grow into Entrepreneurs.

CO4: Differentiate prokaryotic and eukaryotic cells, understand the basic structure and functions of cell organelles, basic concepts of Molecular Biology and Origin of life.

CO5: Comprehend the principles of Chemistry and apply them in daily life and develop responsibility towards environment by applying the concepts of Green Chemistry.

ZOOLOGY SEMESTER-I,

COURSE II - INTRODUCTION TO APPLIED BIOLOGY

(Course Code: BSCB24102)

Course Outcomes: On the completion of the course the student should be able to –

CO1: Understand the history, ultrastructure, diversity, and importance of microorganisms.

CO2: Understand the structure and functions of macromolecules.

CO3: Acquire the knowledge on biotechnology principles and their applications in food and medicine.

CO4: Compare the techniques, tools, and their uses in diagnosis and therapy.

CO5: Demonstrate the bioinformatics and statistical tools in comprehending the complex biological data.

ZOOLOGY SEMESTER-II

COURSE-3 / (Minor-1) ANIMAL DIVERSITY - BIOLOGY OF NON-CHORDATES

(**Course Code**: ZOO24201)

Course Outcomes:

CO1: Understand the concept of the animal kingdom, classification, and general characters of Protozoa

CO2: Classify Porifera and Coelenterata with taxonomic keys

CO3: Classify Phylum Platy & Nemathelminthes using examples & parasitic adaptations

CO4: Compare the Phylum Annelida with Arthropoda using examples, understand the economic importance of vermicompost in organic farming & appreciate the beneficial role of insects.

CO5: Compare & contrast the phylum Mollusca, Echinodermata & Hemichordata with suitable examples in relation to the phylogeny

ZOOLOGY SEMESTER-II

COURSE 4: CELL & MOLECULAR BIOLOGY

(**Course Code**: ZOO24202)

COURSE OUTCOMES:

By the completion of the course the student shall able to –

CO1: Understand the basic unit of the living organisms and to differentiate the organisms by their cellstructure.

CO2: Analyze the structure and function of plasma membrane and different cell organelles of an eukaryotic cell.

CO3: Understand the cell cycle, and bioenergetics of the cell and give reasons for abnormal cell functioning.

CO4: Understand molecular biology's central dogma and genetic information flow from DNA to proteins.

CO5: Understand the gene expression phenomenon and biological importance of biomolecules.

AQUACULTURE SEMESTER- II

Minor-1 Taxonomy and Functional Anatomy of Fin Fish and Shellfish

(**Course Code**: M-AQ24201)

Course Outcomes:

CO1: Acquire knowledge on the Classification of major groups of Finfish and Shell fish

CO2: Understand the general characters of Finfish and Shell fish

CO3: Understand and analyze the structure and functions of Digestive system

CO4: Understand the difference between the brain of fish and prawn

CO5: Compare and contrast the functional anatomy of fish and prawn

ZOOLOGY SYLLABUS – SEMESTER III –

COURSE 5 / Minor II - ANIMAL DIVERSITY-II BIOLOGY OF CHORDATES

(Course Code: ZOO23301)

Course Outcomes: By the completion of the course the graduate should able to –

CO 1: Describe general taxonomic rules on animal classification of chordates

CO 2: Classify Protochordata to Mammalia with taxonomic keys

CO 3: Understand Mammals with specific structural adaptations

CO 4: Understand the significance of dentition and evolutionary significance

CO 5: Understand the origin and evolutionary relationship of different phyla from Prochordata to Mammalia.

ZOOLOGY- Semester-III (2024-2025)

COURSE 6: PRINCIPLES OF GENETICS

(Course Code: ZOO23302)

Course Outcomes:

CO 1: To understand the history of genetics, gain knowledge basic terminology of genetics

CO 2: To acquire knowledge on interaction of genes, various types of inheritance patterns existing in animals with reference to non-Mendelian inheritance.

CO 3: To acquire knowledge on blood group & extra chromosomal inheritance

CO 4: Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination,

CO 5: Acquiring in-depth knowledge on human karyotyping, pedigree analysis, chromosomal disorders and concepts of proteomics and genomics

ZOOLOGY- SEMESTER-III

COURSE 7: ANIMAL BIOTECHNOLOGY

(Course Code: ZOO23303)

Course Outcomes

CO 1: Get knowledge of the Vectors and Restriction enzymes used in biotechnology

CO 2: Describe the gene delivery mechanism and PCR technique

CO 3: Acquire basic knowledge on media preparation and cell culture techniques

CO 4: Understand the manipulation of reproduction with the application of biotechnology

CO 5: Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.

ZOOLOGY- SEMESTER-III

COURSE 8: EVOLUTION AND ZOOGEOGRAPHY

(Course Code: ZOO23304)

Course Outcomes:

CO1: Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals

CO2: Explain the different evidences of evolution

CO3: Understand the theories of evolution

CO4: Explain the various tools for evolution

CO5: Map the distribution of animals according to zoological realms

AQUACULTURE SEMESTER: III

Minor II - Basic Principles of Aquaculture

(Course Code:M-AQ23301)

CO1: Understand the concept of blue revolution, analyze the history, and compare the present status of aquaculture at global, national and state levels and its significance over agriculture.

CO2: Acquire knowledge in the different types of aquaculture, culture systems and culture methods in practice worldwide.

CO3: Gain knowledge in the different types of culture ponds.

CO4: Understand the arrangement of different types of ponds in a fish farm and design an ideal fish farm

CO5: Comprehend the best management practices to be adopted in aquaculture for good yield and acquire the skill in the analysis of water and soil parameters of a culture pond.

ZOOLOGY - SEMESTER-IV

COURSE 9: EMBRYOLOGY

(**Course Code: ZOO23401**)

CO 1: Understand the historical perspective and concepts of embryology

CO 2: Acquire knowledge on gametogenesis, fertilization, and cleavage patterns

CO 3: Understand the fate of germinal layers and extra embryonic membranes

CO 4: Explain the process of regeneration in certain animals

CO 5: Examine the process of organogenesis

ZOOLOGY - SEMESTER-IV

COURSE 10: ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

(**Course Code: ZOO23402**)

CO 1: Understand the physiology of digestion and hormonal control of digestion

CO 2: Develop a comprehensive picture of respiratory physiology

CO 3: Acquire knowledge on renal physiology

CO 4: Understand the physiology of Nerve and muscle

CO 5: Understand the physiology of heart

ZOOLOGY - SEMESTER-IV

COURSE 11: IMMUNOLOGY

(Course Code: ZOO23403)

Course Outcomes:

CO 1: Articulate the roles of innate recognition receptors in immune responses

CO 2: Compare and contrast humoral versus cell-mediated immune responses

CO 3: Distinguish various cell types involved in immune responses and associated functions;

CO 4: Distinguish and characterize antibody isotypes, development, and functions

CO 5: Understand the role of cytokines in immunity and immune cell activation;

CO 6: Understand the significance the Major Histocompatibility Complex in terms of immune response and transplantation.

AQUACULTURE SEMESTER-IV

Minor III - Fish Health Management

(Course Code: M-AQ23401)

Course Outcomes: By the completion of the course the student should be able to –

CO1. Provide students with knowledge about fish diseases and pathological aspects of diseases.

CO2. Learn about Fungal, Viral and Bacterial diseases of finfish.

CO3. Gain knowledge of Nutritional deficiency related diseases and antibiotic and chemotherapeutics.

CO4. Understand and learn the importance of diagnostic tools in identification of diseases and application and development of vaccines

AQUACULTURE SEMESTER-IV

Minor IV - Shrimp Health Management

(Course Code: M-AQ23402)

Course outcomes:

CO1.Provide students with knowledge about shrimp diseases and pathological aspects of diseases.

CO2. Learn about Fungal, Viral and Bacterial diseases of shellfish.

CO3.Gain knowledge of Nutritional deficiency related diseases and antibiotic and chemotherapeutics.

CO4. Understand and learn the importance of diagnostic tools in the identification of diseases and the application and development of vaccines.

CO5. To know about production of disease free seeds and good feed management.

ZOOLOGY- SEMESTER-V PAPER-6A
SUSTAINABLE AQUACULTURE MANAGEMENT
(Course Code: ZOO225311-6A)

Course Outcomes

CO1: Evaluate the present status of aquaculture at the Global level and National level

CO2: Classify different types of ponds used in aquaculture

CO3: Demonstrate induced breeding of carps

CO4: Acquire critical knowledge on commercial importance of shrimps

CO5: Identify fin and shell fish diseases

ZOOLOGY- SEMESTER-V PAPER-7A
POSTHARVEST TECHNOLOGY OF FISH AND FISHERIES
(**Course Code: ZOO225312-7A)**

Course Outcomes

CO1: Acquire the skill of handling of fish for preservation

CO2: Understand the knowledge of methods of fish preservation.

CO3: Understand and apply the processing of fish and its By-products.

CO4: Analyse the importance of sanitation and quality control in processing units.

CO5: Assess the need of quality assurance and certification for aqua products.

Zoology Semester-V Paper-6B
LIVE STOCK MANAGEMENT-I (BIOLOGY OF DAIRY ANIMALS)
(**Course Code: ZOO225311-6B)**

Course Outcomes

CO1: Select the suitable breeds of livestock for rearing

CO2: Relate the anatomy of udder with letdown of milk

CO3: Identify and manipulate the reproductive behavior of cattle

CO4: Inspect the economics of dairy farming

CO5: Appreciate the various breeding techniques employed in live stock

Zoology Semester-V Paper-7B

LIVESTOCK MANAGEMENT -II (DAIRY PRODUCTION AND MANAGEMENT)

(Course Code: ZOO225312-7B)

Course Outcomes

CO1: Identify and suggest the suitable housing system for the dairy farming

CO2: Understand management practices for the dairy farming

CO3: Understand the skills of pasteurization & sterilization methods.

CO4: Apply the skill to produce dairy products in their daily life.

CO5: Acquire the skills of separation techniques of cream from milk

A.S.D GOVT. DEGREE COLLEGE FOR WOMEN (A),

(Re- Accredited by NAAC with B Grade)

Jagannaickpur, Kakinada, East Godavari, AP – 533002

Aquaculture Technology Course Outcomes (2024-2025)

AQUACULTURE TECHNOLOGY SEMESTER: V PAPER-6A

Course 6A: SOIL AND WATER QUALITY MANAGEMENT

Course outcomes By the completion of the course the graduate should able to–

CO1: Understand and analyze various types of soil and their properties

CO2: Acquire the skills of assessment of parameters of water and analyze their importance in culture practices.

CO3: Apply different methods of soil and water amendments of aquaculture practices

CO4: Analyze recent trends in water quality management techniques.

CO5: Assess the different methods of pond treatments

AQUACULTURE TECHNOLOGY SEMESTER: V PAPER-7A

ORNAMENTAL FISH CULTURE

Course Outcomes: Students after successful completion of the course will be able to:

CO1: Understand the importance of ornamental fishes in Global and Indian trading

CO2: Identify various commercially important freshwater and marine ornamental organisms

CO3: Acquire the skill of aquarium management

CO4: Apply the knowledge of breeding in ornamental fishes

CO5: Understand and apply the commercial production of aquarium fishes and plants.

A.S.D. Government Degree College for Women (Autonomous)
Kakinada

DEPARTMENT OF MATHEMATICS

2024-25

COURSE OUTCOMES

Year :I

Semester :I **Title of the Paper:** Essentials of Mathematics, Physics,Chemistry & Computer Science

Course Outcomes:

CO1 Apply critical thinking skills to solve complex problems involvingcomplex numbers, trigonometric ratios, vectors, and statistical measures.

CO2 To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations

CO3 To Explain the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to Connect their knowledge of chemistry to daily life.

CO4 ore the history and evolution of the Internet and to gain an nding of network security concepts, including threats, vulnerabilities,ntermeasures.

Semester :I **Title of the Paper:** Advances of Mathematics, Physics,Chemistry & Computer Science

Course Outcomes

CO1 Explore the applications of mathematics in various fields of physics and chemistry, to understand how mathematical concepts are used to model and solve real-world problems.

CO2 To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.

CO3 Understand the different sources of renewable energy and their generation processes and advances in nanomaterial's and their properties.

CO4 Understand and convert between different number systems, such as binary, decimal, and hexadecimal. Differentiate between analog and digital signalserstand their characteristics.

Semester :II **Title of the Paper:** Differential Equations

Course Outcomes:

CO 1. solve first order first degree linear differential equations.

CO 2. convert a non-exact homogeneous equation to exact differential equation by using an integrating factor

CO 3. know the methods of finding solution of a differential equation of first order but not of first degree

CO 4. solve higher-order linear differential equations for both homogeneous and non-homogeneous, with constant coefficients.

CO 5. understand and apply theappropriate methods for solving higher order differential equations

Semester :II **Title of the Paper:** Analytical SolidGeometry

Course Outcomes:

CO 1. understand planes and system ofplanes.

CO 2. know the detailed idea of lines.

CO 3. understand spheres and theirproperties.

CO4. know system of spheres and coaxialsystem of spheres.

CO 5. understand various types of cones.

Year :II

Semester :III **Title of the Paper:** Group Theory

Course Outcomes:

CO 1. Acquire the basic knowledge and structure of groups.
CO 2. Get the significance of the notation ofa subgroup and cosets.
CO 3. Understand the concept of normalsubgroups and properties of normal subgroup.
CO 4. Study the homomorphisms and isomorphisms with applications.
CO 5. Understand the properties ofpermutation and cyclic groups

Semester :III **Title of the Paper:** Numerical Methods

Course Outcomes:

CO 1. Difference between the operators,
Δ, ∇, E and the relation between them.
CO 2. Know about the Newton – Gregory Forward and backward interpolation.
CO3. Know the Central Difference operators, δ, μ, σ and relation between them.
CO 4. Solve Algebraic and Transcendental equations.
CO 5.Understand the concept of Curvefitting

Semester :III **Title of the Paper:** Laplace Transforms

Course Outcomes:

CO 1. Understand the definition and properties of Laplace transformations
CO 2. Get an idea about first and second shifting theorems and change of scale property.
CO 3. Understand Laplace transforms of standard functions like Bessel, Error function etc.
CO 4. Know the reverse transformation of Laplace and properties.
CO 5. Get the knowledge of application of convolution theorem

Semester :III **Title of the Paper:** Special Functions

Course Outcomes:

CO 1. Understand the Beta and Gamma functions, their properties and relation between these two functions, understand the orthogonal properties of Chebyshev polynomials and recurrence relations.
CO 2. Find power series solutions ofordinary differential equations.
CO 3. Solve Hermite equation and write the Hermite Polynomial of order (degree) n, also Find the generating function for Hermite Polynomials, study the orthogonal properties of Hermite Polynomials and recurrence relations.
CO 4. Solve Legendre equation and writethe Legendre equation of first kind, also findthe generating function for Legendre Polynomials, understand the orthogonal properties of Legendre Polynomials.
CO 5. Solve Bessel equation and write the Bessel equation of first kind of order n, also find the generating function for Bessel function understand the orthogonalproperties of Bessel Function.

Semester : IV **Title of the Paper:** Ring Theory

Course Outcomes:

CO 1. Acquire the basic knowledge of rings, fields and integral domains.
CO 2. Get the knowledge of subrings andideals.
CO 3. Construct composition tables forfinite quotient rings.
CO 4. Study the homomorphisms andisomorphisms with applications.
CO 5. Get the idea of division algorithm ofpolynomials over a field.

Semester : IV **Title of the Paper:** Introduction to RealAnalysis

Course Outcomes:

CO1.Get clear idea about the real numbers and real valued functions.

CO2. Obtain the skills of analysing the concepts and applying appropriate methods for testing convergence of a sequence/ series.

CO3. Test the continuity and differentiability and Riemann integration ofa function.

CO4. Know the geometrical interpretation of mean value theorems.

CO 5. Know about the fundamental theorem
of integral calculus

Semester : IV **Title of the Paper:** Integral Transforms

Course Outcomes:

CO 1. Understand the application of Laplacetransforms to solve ODEs.

CO 2. Understand the application of Laplacetransforms to solve Simultaneous Des.

CO 3. Understand the application of Laplacetransforms to Integral equations.

CO 4. Basic knowledge of Fourier-Transformations.

CO 5. Comprehend the properties of Fourier
transforms and solve problems related tofinite Fourier transforms.

Year :III

Semester : V **Title of the Paper:** Numerical Methods

Course Outcomes:

CO 1. Understand the subject of various numerical methods that are used to obtain approximate solutions .

CO 2. Understand various finite difference concepts and interpolation methods.

CO 3. Work out numerical differentiationand integration whenever and wherever routine methods are not applicable.

CO 4. Find numerical solutions of ordinary differential equations by using various numerical methods.

CO 5. Analyze and evaluate the accuracy of numerical methods

Semester : V **Title of the Paper:** Mathematical SpecialFunctions

Course Outcomes:

CO 1. Understand the Beta and Gamma functions, their properties and relation between these two functions, understand the orthogonal properties of Chebyshev polynomials and recurrence relations.

CO 2. Find power series solutions ofordinary differential equations.

CO 3. Solve Hermite equation and write the Hermite Polynomial of order (degree) n, also Find the generating function for Hermite Polynomials, study the orthogonal properties of Hermite Polynomials and recurrence relations.

CO 4. Solve Legendre equation and writethe Legendre equation of first kind, also findthe generating function for Legendre Polynomials, understand the orthogonal properties of Legendre Polynomials.

CO 5. Solve Bessel equation and write the Bessel equation of first kind of order n, also find the generating function for Bessel function understand the orthogonalproperties of Bessel Function.

Department of physics

COURSE OUTCOME -AY 2024-2025

Semester 1		
Course code: **BSCM24101** **Essentials and applications of Mathematical, Physical, chemical and computer science**		
S.No	CO	Description
1	1	To Apply critical thinking skills to solve complex problems involving complex numbers, trigonometric ratios, vectors, and statistical measures
2	2	To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations
3	3	Understand the interplay and connections between mathematics, physics, and chemistry in various applications.
4	4	Understand the interplay and connections between mathematics, physics, and chemistry in various applications. Recognize how mathematical models and physical and chemical principles can be used to explain and predict phenomena in different contexts
5	5	To explore the history and evolution of the Internet and to gain an understanding of network security concepts, including threats, vulnerabilities, and countermeasures

Semester 1		
Course code: **BSCM24102** **Advances in Mathematical, Physical and Chemical sciences**		
S.No	CO	Description
1	1	Explore the applications of mathematics in various fields of physics and chemistry, to understand how mathematical concepts are used to model and solve real-world problems
2	2	To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.
3	3	Understand the different sources of renewable energy and their generation and advances in nano materials. To study the emerging field of quantum communication and biophysics.
4	4	Understand the interplay and connections between mathematics, physics, and chemistry in various advanced applications
5	5	Understand and convert between different number systems, Differentiate between analog and digital signals and understand their characteristics. Gain knowledge of different types of transmission media.

Semester 2		
Course code: **PHY 24201** **Mechanics and Properties of matter**		
S.No	CO	Description
1	1	Understand and apply the concepts of scalar and vector fields, calculate the gradient of a scalar field, determine the divergence and curl of a vector field.
2	2	Understand Newton's laws of motion and motion of variable mass system and its application to rocket motion and the concepts of impact parameter, scattering cross section.
3	3	Apply the rotational kinematic relations, the principle and working of gyroscope and its applications and the precessional motion of a freely rotating symmetric top.
4	4	Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.
5	5	Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence.

Semester 2		
Course code : **PHY 24202** **Waves and Oscillations**		
S.No	CO	Description
1	1	To describe the basic characteristics of waves such as frequency, wavelength, amplitude, period, and speed .Examine the phenomena of simple harmonic motion
2	2	To distinction between undamped, damped and forced oscillations and the concepts of resonance
3	3	To get the knowledge about how to construct and analysis the square waves, saw tooth waves, etc. from Fourier analysis
4	4	To Figure out the formation of harmonics and overtones in a stretched string and vibrations in bars
5	5	To acquire the knowledge on Ultrasonic waves, their production and detection and their applications in different fields.

Semester 3		
Course code : **PHY 23301** **OPTICS**		
S.No	CO	Description
1	1	To Understand about the different aberrations in lenses and discuss the methods of minimizing them.
2	2	Understand the phenomenon of interference of light.
3	3	Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating and to describe the construction and working of zone plate and make the comparison of zone plate with convex lens .
4	4	The various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
5	5	Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields. To understand the basic principles of fibre optic communication and explore the field of Holography and Nonlinear optics and their applications.

Semester 3		
Course code : **PHY 23302** **Heat and Thermodynamics**		
S.No	CO	Description
1	1	Understand the basic aspects of kinetic theory of gases, Maxwell-Boltzman distribution law, equipartition of energies, mean free path of molecular collisions and the transport phenomenon in ideal gases
2	2	Gain knowledge on the basic concepts of thermodynamics, the first and the second law of thermodynamics, the basic principles of refrigeration, the concept of entropy, the thermodynamic potentials and their physical interpretations and to Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency.
3	3	Develop critical understanding of concept of Thermodynamic potentials, the formulation of Maxwell's equations and its applications.
4	4	Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at low temperatures.
5	5	Examine the nature of black body radiations and the basic theories.

Semester 3		
Course code : **PHY 23303** Electronic Devices and Circuits		
S.No	CO	Description
1	1	Understand the behavior of P-N junction diodes in forward and reverse bias conditions and analyze the impact of junction capacitance on diode characteristics.
2	2	Analyze and compare the characteristics and operation of different BJT configurations (CB, CE, and CC) and demonstrate proficiency in biasing techniques.
3	3	Comprehend the operation and characteristics of FETs, including JFETs and MOSFETs, and explain the working principles and characteristics of UJTs.
4	4	Describe the operation and applications of various photoelectric devices such as LEDs, photo diodes, phototransistors, and LDRs.
5	5	Understand the operation of rectifiers (half-wave, full-wave, and bridge), analyze the ripple factor and efficiency, and demonstrate knowledge of different filter types and three-terminal voltage regulators .
Semester 3		
Course code : **PHY 23304** **Analog and Digital Electronics**		
S.No	CO	Description
1	1	Understand Principles and Working of Operational Amplifier
2	2	Apply their knowledge on OP-Amp in different Applications
3	3	To understand the number systems, Binary codes and Complements.
4	4	To understand the Boolean algebra and simplification of Boolean expressions and to analyze logic processes and implement logical operations using combinational logic circuits.
5	5	To understand the concepts of sequential circuits and to analyze sequential systems in terms of state machines

Semester 4		
Course code : **PHY 23401** **Electricity, Magnetism & Electronics**		
S.No	CO	Description
1	1	Understand the Gauss law and its application to obtain electric field in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant.
2	2	Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents and to distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
3	3	Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q- factor, Power factor and the comparative study of series and parallel resonant circuits and to Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
4	4	Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors
5	5	Understand the operation of basic logic gates and universal gates and their truth tables.

Semester 4		
Course code : **PHY 23402** **Modern Physics**		
S.No	CO	Description
1	1	Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics.
2	2	Develop critical understanding of concept of Matter waves and Uncertainty principle.
3	3	Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications.
4	4	Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors and to classify Elementary particles based on their mass, charge, spin, half-life and interaction.
5	5	Get familiarized with crystal structures and to increase the awareness and appreciation of superconductors and their practical applications

Semester 4		
Course code : **PHY 23403** **Introduction to Nuclear and Particle Physics**		
S.No	CO	Description
1	1	To know about high energy particles and their applications which prepares them for further study and research in particle physics.
2	2	Students can explain important concepts on nucleon-nucleon interaction, such as its short-range, spin dependence, isospin, and tensors.
3	3	Students can show the potential shapes from nucleon nucleon interactions.
4	4	Students can explain the single particle model, its strengths, and weaknesses
5	5	Students can explain magic numbers based on this model

Semester 5		
Course code: **PHY 205303-6B** **Low Temperature Physics & Refrigeration**		
S.No	CO	Description
1	1	Identify various methods and techniques used to produce low temperatures in the Laboratory.
2	2	Acquire a critical knowledge on refrigeration and air conditioning.
3	3	Demonstrate skills of Refrigerators through hands on experience and learns about refrigeration components and their accessories.
4	4	Understand the classification, properties of refrigerants and their effects on environment.
5	5	Comprehend the applications of Low Temperature Physics and refrigeration.

Semester 5		
Course code : **PHY 205304-7B** **Solar Energy and Applications**		
S.No	CO	Description
1	1	Understand Sun structure, forms of energy coming from the Sun and its measurement.
2	2	Acquire a critical knowledge on the working of thermal and photovoltaic collectors.
3	3	Demonstrate skills related to PV cells through hands on experience.
4	4	Understand testing procedures and fault analysis of thermal collectors and PV modules.
5	5	Comprehend applications of thermal collectors and PV modules

A. S.D.GOVT.DEGREE COLLEGE FOR WOMEN(A), KAKINADA
DEPARTMENT OF CHEMISTRY
2024-2025

COURSE OUTCOMES

Semester-1

Course – 1: Essentials of Mathematics, Physics,Chemistry & Computer Science

On Completion of the course, the students will be able to		Cognitive Domain
CO1	Apply critical thinking skills to solve complex problems involvingcomplex numbers, trigonometric ratios, vectors, and statistical measures.	Critical Thinking
CO2	To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations	Application
CO3	To Explain the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to Connect their knowledge of chemistry to daily life.	Application
CO4	ore the history and evolution of the Internet and to gain an nding of network security concepts, including threats, vulnerabilities,ntermeasures.	Application

Course – 2: Advances of Mathematics, Physics,Chemistry & Computer Science

On Completion of the course, the students will be able to		Cognitive Domain
CO1	Explore the applications of mathematics in various fields of physics and chemistry, to understand how mathematical concepts are used to model and solve real-world problems.	Application
CO2	To Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.	Application
CO3	Understand the different sources of renewable energy and their generation processes and advances in nanomaterial's and their properties.	Application
CO4	Understand and convert between different number systems, such as binary, decimal, and hexadecimal. Differentiate between analog and digital signalserstand their characteristics.	Application

Semester-II

Course -III: GENERAL & INORGANIC CHEMISTRY

	On Completion of the course, the students will be able to-	Cognitive Domain
CO1	Understand the structure of atom and the arrangement of elements in the periodic table.	Understanding
CO2	Understand the nature and properties of ionic compounds.	Understanding
CO3	Explain the existence of special types of compounds through weak chemical forces.	Application
CO4	Define acids and bases and predict the nature of salts.	Application

Course -IV: INORGANIC CHEMISTRY

	On Completion of the course, the students will be able to
CO1	Acquire knowledge on preparation and structure and Diborane and Borazole.
CO2	Identify the importance of Interhalogen compounds and pseudo halogens.
CO3	Comprehend the applications of d-block elements and f-block elements.
CO4	Identify the importance of Organo metallic compounds in Organic synthesis.

SECONDYEAR, SEMESTER-III

Course Code 5:Fundamentals in Organic Chemistry

	On Completion of the course, the students will be able to	**Cognitive Domain**
CO1	Understand and explain the differential behaviour of organic Compounds based on fundamental concepts learnt.	Critical Thinking
CO2	Formulate the mechanism of organic reactions by recalling and correlating the fundamental properties of the reactants involved.	Application
CO3	Learn and identify many organic reaction mechanisms.	Application
CO4	Correlate and describe the stereo-chemical properties of organic Compounds and Reactions.	Application

SECOND YEAR, SEMESTER-III

Course Code-6 : Organic Chemistry

	On Completion of the course, the students will be able to-	**Cognitive Domain**
CO1	Understand the concept of SN^1 and SN^2 mechanisms	Understanding
CO2	Describe the reactivity of alkyl halides, alcohols and phenols.	Application
CO3	Achieve the skills required to propose various mechanisms	Skill
CO4	Apply the concepts for synthesising various Halogen &oxygen containing organic compounds	Application

SECOND YEAR, SEMESTER-III

Course Code-7: Physical chemistry

	On Completion of the course, the students will be able to-	Cognitive Domain
CO1	Understand the ideal and non ideal behaviour of solutions	Understanding
CO2	Discuss the basic concepts of Photochemistry.	Understanding
CO3	Apply the principles of electrical conductivity	Applying
CO4	. Explain the importance of emf and its applications	Applying

SECOND YEAR, SEMESTER-III

Course Code-8 : Inorganic & Physical Chemistry

On Completion of the course, the students will be able to-		Cognitive Domain
CO1	Understand the IUPAC nomenclature for Coordination compounds and apply it for naming these compounds	Understanding
CO2	Understand the basic concepts of thermodynamics	Understanding
CO3	Analyse Reaction mechanism in Inorganic Chemistry, stereo chemistry of coordination compounds and apply trans effect for synthesis of complexes	Application
CO4	Application and problems on 18 electron rule	Application

SECOND YEAR, SEMESTER-IV

Course Code-9: Physical Chemistry-II

On Completion of the course, the students will be able to		Cognitive Domain
CO1	Explain the difference between solids liquids and gases in terms of intermolecular interactions.	Critical Thinking
CO2	Differentiate ideal and real gases.	Application
CO3	Discuss the basic concepts of two component systems	Application
CO4	Understand the basic concepts of crystallography.	Application

SECOND YEAR, SEMESTER-IV

Course Code-10: General & Physical Chemistry

On Completion of the course, the students will be able to-		Cognitive Domain
CO1	Correlate and describe the stereochemical properties of organic compounds	Applying
CO2	Understand the biological significance of various elements present in the human body	Understanding
CO3	Apply the concepts of ionic equilibrium for the qualitative and quantitative anlysis	Analysis
CO4	Determine the order of a chemical reaction and learn basic concepts of enzyme catalysis	Applying

SECOND YEAR, SEMESTER-IV

Course Code-11 : Nitrogen containing Organic Compounds & Spectroscopy

On Completion of the course, the students will be able to-		Cognitive Domain
CO1	Analyse the importance of natural products like aminoacids, proteins in biological system and synthesize them	Understanding
CO2	Acquire knowledge about the preparation, applications o Nitrohydrocarbons and Nitrogen Compounds	Applying
CO3	Acquire knowledge about the preparation and application of heterocyclic compounds which enables the synthesis of new organic compound	Understanding
CO4	Apply the concepts of UV and IR to ascertain the functional group in an organic compound.	Critical thinking

SEMESTER– V

Paper 6 - D (ENVIRONMENTAL CHEMISTRY)

On Completion of the course, the students will be able to		Cognitive Domain
CO1	Understand the environment functions and how it is affected by human activities.	Applying
CO2	Acquire chemical knowledge to ensure sustainable use of the world's resources andecosystems services.	Understanding
CO3	Engage in simple and advanced analytical tools used to measure the different typesof pollution.	Analysis
CO4	Analyze key ethical challenges concerning biodiversity and understand the moral principles,goals and virtues important for guiding decisions that affect Earth's plant and animal life.	Applying

SEMESTER– V

Paper 7-D (GREEN CHEMISTRY AND NANOTECHNOLOGY

On Completion of the course, the students will be able to-		Cognitive Domain
CO1	Understand the importance of Green chemistry and Green synthesis, green solvents in synthesis.	Understanding
CO2	Apply Green synthesis methods Microwave assisted organic synthesis, Ultrasound assisted organic synthesis and catalysis.	Applying
CO3	Analyze alternative solvents and sources of energy to carry out green synthesis.	Analysis
CO4	Apply chemical methods of nanomaterial synthesis for synthesis of nanomaterials	Applying

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
KAKINADA
DEPARTMENT OF COMPUTER SCIENCE
COURSE OUTCOMES

2024 - 2025

SEMESTER -I

Course 1: ESSENTIALS AND APPLICATIONS OF MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

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

CO1: Apply critical thinking skills to solve complex problems involving complex numbers, trigonometric ratios, vectors, and statistical measures.

CO2: Understand the basic principles and concepts underlying a broad range of fundamental areas of chemistry and to Connect their knowledge of chemistry to daily life.

CO3: Examine the interplay and connections between mathematics, physics, and chemistry in various applications.

CO4: Interpret the mathematical models and physical and chemical principles to explain and predict phenomena in different contexts.

CO5: Analyse the evolution of computer and internet technologies and assess their ethical implications, Focusing on network security and data protection.

Course 2: ADVANCES IN MATHEMATICAL, PHYSICAL AND CHEMICAL SCIENCES

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

CO1: Explain the basic principles and concepts underlying a broad range of fundamental areas of physics and to Connect their knowledge of physics to everyday situations.

CO2: Use the different sources of renewable energy and their generation processes and advances in nano-materials and their properties, with a focus on quantum dots.

CO3: Practice non-pollutant methods to save the ecosystem and human health.

CO4: Apply mathematical models, physical and chemical principles in different contexts.

CO5: Distinguish between various number systems, signal types, and evaluate the role of networking devices in data communication over different transmission media.

SEMESTER-II

Course 3: PROBLEM SOLVING IN C

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

CO1: Understand the working of a digital computer and Fundamental constructs of Programming

CO2: Analyze and develop a solution to a given problem with suitable control structures

CO3: Utilize arrays and strings in C for problem solving.

CO4: Demonstrate the use of functions and pointers in C, including function prototypes, recursion, and dynamic memory management

CO5: Implement structures and unions to manage complex data types in C and perform basic file operations.

Course 4: DIGITAL LOGIC DESIGN

Upon successful completion of the course, the students will be able to

CO1: Understand the conversion of numbers from one radix to another radix and perform arithmetic operations. **CO2:** Simplify Boolean functions using Boolean algebra and k- maps.
CO3: Design adders and subtractors circuits.
CO4: Design combinational logic circuits such as decoders, encoders, multiplexers and demultiplexers.
CO5: Use flip flops to design registers and counters..

SEMESTER-III

Course 5: OBJECT ORIENTED PROGRAMMING USING JAVA

Upon successful completion of the course, a student will be able to:
CO1: Understand the basic concepts of Object-Oriented Programming and Java Program Constructs
CO2: Implement classes and objects and analyze Inheritance and Dynamic Method Dispatch
CO3: Create packages and implement interfaces, exception handling to enhance program reliability
CO4: Develop multithreaded applications and utilize stream-based I/O for file handling in Java
CO5: Construct GUI screens with event handling.

Course 6: DATA STRUCTURES USING C

Upon successful completion of the course, a student will be able to:
CO1: Analyze algorithms and Understand various Data Structures including arrays for data storage and processing.
CO2: Realize Linked List Data Structure for various operations
CO3: Analyze step by step and develop algorithms to solve real world problems by implementing Stacks, Queues data structures.
CO4: Implement and compare various searching & sorting techniques.
CO5: Understand the Non-Linear Data Structures such as Binary Trees and Graphs

Course 7: COMPUTER ORGANIZATION

Upon successful completion of the course, the students will be able to
CO1: Describe register transfer language and perform basic micro-operations
CO2: Distinguish between various instruction formats and identify the significance of micro-programmed and hard-wired control units.
CO3: Analyse the performance of hierarchical organization of memory.
CO4: Summarize different data transfer techniques.
CO5: Demonstrate arithmetic operations on fixed and floating-point numbers and illustrate concepts of parallel processing.

Course 8: OPERATING SYSTEMS

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

CO1: Demonstrate knowledge and comprehension of operating system functions.

CO2: Analyze different process scheduling algorithms and apply them to manage processes and threads effectively.

CO3: Create strategies to prevent, detect, and recover from deadlocks, and design solutions for inter-process communication and synchronization problems.

CO4: Compare and contrast different memory allocation strategies and evaluate their effectiveness.

CO5: Evaluate disk scheduling algorithms while implementing OS security measures.

SEMESTER-IV

Course 9: DATABASE MANAGEMENT SYSTEMS

On successful completion of the course, students will be able to

CO1: Differentiate between database systems and file based systems

CO2: Design a database using ER model

CO3: Make use of relational model in database design

CO4: Utilize SQL commands for creating and manipulating data stored in databases.

CO5: Write PL/SQL programs to work with databases.

Course 10: OBJECT ORIENTED SOFTWARE ENGINEERING

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

CO1: Understand and apply the fundamental principles of Object-Oriented Programming (OOP) Concepts and Unified Modelling Language (UML) basics, in the development of software solutions.

CO2: Analyse and specify software requirements, develop use cases and scenarios, apply object-oriented analysis and design (OOAD) principles

CO3: Implement software construction principles using object-oriented programming languages and apply testing methodologies

CO4: Analyse and Evaluate Software Maintenance and Evolution Strategies

CO5: Apply Advanced Object-Oriented Software Engineering Concepts.

Course 11: DATA COMMUNICATION AND COMPUTER NETWORKS

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

CO1: Understand and apply network applications, hardware, software, and reference models for Network communication.

CO2: Design and analyse data link layer protocols, multiple access protocols, and wireless LAN technologies.

CO3: Evaluate network layer design, routing algorithms, and congestion control

CO4: Analyse transport service, transport protocols, and evaluate UDP and TCP in the internet.

CO5: Understand application layer protocols, including DNS, HTTP, and SMTP, and their roles in network communications.

SEMESTER-V

Course: WEB INTERFACE DESIGNING TECHNOLOGIES

At the end of the course the student will be able to

CO1: Understand the fundamentals of HTML, including its structure, elements, attributes, and responsive design techniques.

CO2: Create and manage HTML forms with various input types and integrate CSS for styling and layout customization.

CO3: Implement client-side validation and dynamic web features using JavaScript and DHTML for enhanced user interaction.

CO4: Learn how to install word press and gain the knowledge of installing various plugins to use in their websites.

CO5: Customize WordPress sites using parent and child themes, manage user roles, and extend functionality with plugins.

Course: WEB APPLICATIONS DEVELOPMENT USING PHP & MYSQL

At the end of the course the student will be able to

CO1: Understand PHP syntax, including variables, data types, operators, and write simple programs in PHP.

CO2: Create and manipulate arrays and objects in PHP.

CO3: Develop web forms in PHP, manage form input, implement cookies, and utilize session management for user state persistence.

CO4: Perform file and directory operations in PHP, including file inclusion, reading, writing, and executing system commands.

CO5: Connect PHP with MySQL to manage data, and develop applications.

Course: INTERNET OF THINGS

At the end of the course the student will be able to

CO1: Appreciate the technology for IoT

CO2: Understand various concepts, terminologies and architecture of IoT systems.

CO3: Understand various applications of IoT

CO4: Learn how to use various sensors and actuators for design of IoT.

CO5: Learn how to connect various things to Internet.

Course: APPLICATION DEVELOPMENT USING PYTHON

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

CO1: Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.

CO2: Demonstrate proficiency in handling Strings and File Systems.

CO3: Create, run and manipulate Python Programs using core data structures like Lists, x Dictionaries and use Regular Expressions.

CO4: Interpret the concepts of Object-Oriented Programming as used in Python.

CO5: Apply concepts of Python programming in various fields related to IOT, Web Services and Databases in Python

Course: DATA SCIENCE

Students after successful completion of the course will be able to:

CO1: Develop relevant programming abilities.

CO2: Demonstrate proficiency with statistical analysis of data.

CO3: Develop the ability to build and assess data-based models.

CO4: Demonstrate skill in data management

CO5: Apply data science concepts and methods to solve problems in real-world contexts and will communicate these solutions effectively.

Course: PYTHON FOR DATA SCIENCE

At the end of the course the student will be able to

CO1: Identify the need for data science and solve basic problems using Python built-in data types and their methods.

CO2: Design an application with user-defined modules and packages using OOP concept

CO3: Employ efficient storage and data operations using NumPy arrays.

CO4: Apply powerful data manipulations using Pandas.

CO5: Do data pre-processing and visualization using Pandas

N.N.S. Eswari
Signature of the HOD
INCHARGE
DEPT OF COMPUTER SCIENCE
ASD GOVT DEGREE COLLEGE (W) (AUTONOMOUS)
KAKINADA

PRINCIPAL
A.S.D.GOVT.DEGREE COLLEGE (W)
AUTONOMOUS
KAKINADA

A.S.D Government Degree College for Women (A), Kakinada

DEPARTMENT OF HOME SCIENCE

Course Outcomes 2024-25

HSC24101: **Introduction to Home Science**

1) Remember and recall the key concepts related to Home Science and its branches.
2) Demonstrate and understand the scope of Home Science and its linkages with other related subjects, recognizing the interdisciplinary nature of the field.
3) Apply the knowledge of various branches of Home Science for individual, family and society.
4) Analyze the concepts of Home Science and their importance and apply them in practical situations.
5) Evaluate the principles of Home Science education and assess their effectiveness in promoting awareness in the related fields.

HSC 24102: Health, Hygiene and Wellness

1) Define the elements, indicators of health and wellness and factors.
2) Explain the classification, morphology, growth, nutrition, and reproduction of various microorganisms and their beneficial applications in industries.
3) Apply the knowledge for analysing the symptoms, aetiology and mode of transmission of various diseases.
4) Suggest the methods of prevention and control of microorganisms.
5) Assess the impact of modern lifestyle and hypokinetic diseases and the importance of sleep for good physical and mental health.

M-FSN24201: Food Science

1) Identify the basic food groups and understand the concept of My Plate for the day and various cooking methods.
2) Demonstrate an understanding of the composition of various food groups in the daily diet.
3) Practically apply the knowledge of food composition and cooking methods.
4) Analyze the effect of cooking methods on various plant foods and classify beverages.
5) Evaluate the effect of different processing methods of animal foods.

HSC 24201: Essentials of Home Science Extension

1) Define the philosophy and principles of Extension Education, the role and qualities of an Extension worker.
2) Interpret the principles of learning and their implications for teaching.
3) Apply the knowledge of Extension in selection and preparation of innovative teaching aids.
4) Analyze the key elements in the process of communication and identify the barriers to communication.
5) Evaluate the effectiveness of different teaching methods and techniques in Extension Education.

HSC 24202: Human Development

1) Remember and recall the key terms related to growth and development
2) Demonstrate an understanding of the principles of child development and identify the factors that influence the growth and development of children.
3) Apply the knowledge of determinants of development to analyze and explain the impact on the growth and development of individuals.
4) Analyse the stages of development across the lifespan and critically evaluate the similarities and differences between these stages.
5) Assess the physical and psychological care required during pregnancy, identify complications that may arise, and evaluate the factors affecting prenatal development.

M-FSN23301: Basic Nutrition

1) Remember the fundamental concepts of food, nutrition and identify the dimensions of health and their relationship to nutrition.
2) Classify and differentiate between various macro and micro nutrients, including their functions, digestion, absorption, and dietary sources.
3) Analyze the classification, functions, and dietary sources of vitamins, minerals.
4) Explain the concept of energy in nutrition, including the determination of gross energy value of foods and basal metabolic rate,
5) Recognize the importance of water and non-nutrient constituents of food, such as phytochemicals, antioxidants, and detoxifying agents, and their importance in maintaining health.

HSC 23301: Textile Fibers

1) Remember the concept of textiles and clothing, importance and properties of textile fibres.
2) Classify textile fibres based on their properties.
3) Analyze the production, and care of natural, manmade & mineral fibres as well as understand their uses in textile applications.
4) Examine the importance and advantages of mixtures and blends in textiles.
5) Evaluate the mechanical and chemical processes involved in spinning yarns.

HSC 23303: Housing for Better Living

1) Remember and explain the importance and functions of a house, and identify the factors that influence the choice of a house.
2) Understand the principles of planning a house and apply them in planning a house and different rooms.
3) Analyze the advantages and disadvantages of owning and renting a house, considering factors such as financial implications, maintenance responsibilities, and long-term stability.
4) Identify the methods of protecting a house from dampness, termite attacks, and fire incidents
5) Recognise and adopt ecofriendly and sustainable practices like vertical gardening ,hydroponics and household waste management.

HSC 23304: Extension Education and Community Development

1) Memorise the definition, objectives, and principles of program planning in extension, as well as the steps involved in program planning.
2) understand the methods to assess felt and unfelt needs of the community as well as evaluate individual and group performances.
3) Interpret the characteristics of a good lesson plan and develop effective lesson plans for specific groups.
4) Analyze the features, characteristics and implications for development for rural, urban, and tribal communities.
5) Evaluate the role of Panchayat Raj systems in India and assess the role of extension organizations.

M-FN23401: Human Physiology

1. Students will acquire foundational knowledge of the human body's major systems, including their anatomy, physiology,
2. Students will apply their understanding of the cardiovascular and digestive systems and the impact of these systems on overall human health.
3. Students will analyse the structure and function of the kidneys in the excretory system, and the structure and mechanisms of the respiratory system and its role in human health
4. Students will evaluate the physiological roles of the central nervous system and the autonomic nervous system, and will assess the impact of endocrine glands on growth, metabolism, and reproduction,
5. Leveraging their comprehensive understanding, students will design health management strategies that consider the physiology of reproduction, including puberty changes and the anatomy of male and female reproductive systems, to address common reproductive health issues.

M-FN23402: Family and Community Nutrition

1) Define the dietary guidelines for Indians, principles of meal planning, and the concept of a balanced diet for various age groups.
2) Interpret the nutritional requirements for different age groups and gain knowledge on nutritional problems and eating disorders.
3) Apply the understanding of nutritional requirements for different stages of lifespan and address nutritional problems and develop appropriate dietary plans.
4) Analyze the importance of nutritional status assessment of the community and its role in identifying nutritional deficiencies and planning interventions.
5) Assess the effectiveness of nutrition programmes in addressing nutritional need

HSC23401:Interior Design and Decoration

1) Recognize the elements and principles of design for attaining goals of Interior design and decoration.
2) Comprehend the methods of achieving goals of Interior decoration by using appropriate principles design.
3) Apply the knowledge of art elements, art principles and colour in interior design.
4) Analyze the furniture and furnishing requirements to attain aesthetics in interiors.

5) Assess the importance of accessories, flower arrangement and plants in interior design.

HSC23402: Principles of Garment Construction

1) Remember and identify the equipment used in different stages of garment construction.
2) Learn the methods of pattern making drafting, draping.
3) Apply the knowledge of principles of design in pattern making and garment construction.
4) Analyze the quality, fitting, and shape of readymade garments, tailor-made garments, and homemade garments and also identify common fitting problems.
5) Evaluate the effectiveness of pattern layout techniques for achieving desired design outcomes and provide constructive feedback for improvement.

HSC23403: Marriage, Family and Child Welfare

1) Explain the concepts, functions, values, and goals of marriage and family in the Indian context.
2) Analyze the various forms of marriage, mate selection processes, and the importance of premarital counselling for successful marital relationships
3) Apply knowledge of marital and family adjustments to real-life situations
4) Evaluate different parenting styles, child welfare programmes, and family welfare initiatives implemented by government and non-government organizations.
5) Interpret and assess major legislations related to marriage, family, and divorce, and propose appropriate counselling.

HFA225301-16C: Food Quality Control & Assurance

1) State the importance in the food quality as well as the objectives, functions, stages, and methods of quality control in the food industry.
2) Explain the different food quality assurance systems at National and International level.
3) Apply theoretical and practical considerations of sensory evaluation subjective and objective tests for sensory parameters.
4) Examine the quality assessment of food materials like selection, food standards, and food packaging and labeling methods.
5) Evaluate the quality assessment of plant and animal foods.

HFH 225301-17C: Food Safety Sanitation and Hygiene

1) Enumerate the factors affecting food safety, and recognize the importance of food safety, including the risks and hazards.
2) understand the role of microorganisms in food-related hazards, and the provisions of the Food Safety and Standards Bill 2005.
3) Associate the principles of food hygiene and sanitation at various levels like food handlers, preparation and storage, garbage disposal, and safety of leftover foods.
4) Examine the methods to identify food adulterants and the consequences of adulteration.
5) Evaluate and recommend the safety measures required in food processing for creating an environment for serving safe and nutritious food.

HGC 225303-18C: Guidance and Counselling

1) Remember the meaning, scope, and need and principles of guidance and counseling.
2) Interpret different types of guidance based on the needs and goals of the clients.
3) Use appropriate counselling techniques based on the clientele.
4) Analyze the needs of the clientele by conducting different types of counseling sessions.
5) Recognize the roles and functions as a counsellor.

HEP 225304-19C: Education and Counselling for Parents and Community

1) Recognise the need, aspects of parent and community education as well as various roles of parents.
2) Identify the principles of parent and community education in relation various socio-cultural settings.
3) Demonstrate various techniques of parent and community education like informal meetings, group and individual meetings.
4) Analyze the role of professionals in parent and community education in evaluating the effectiveness of parent and community education programs.
5) Evaluate the methods of parent education in dealing children with developmental delays as well as special needs and normal children.

HID225305-20A: Interior Design and Decoration

1) Recognize the elements and principles of design for attaining goals of Interior design and decoration.
2) Comprehend the methods of achieving goals of Interior decoration by using appropriate principles design.
3) Apply the knowledge of art elements, art principles and colour in interior design.
4) Analyze the furniture and furnishing requirements to attain aesthetics in interiors.
5) Assess the importance of accessories, flower arrangement and plants in interior design.

HTD225306-21A: Textile Design

1) Identify the art elements, art principles and methods of design in obtaining structural and surface designs in fabrics.
2) Classify different basic and decorative weaves and their role in attaining the desired structural designs in fabrics.
3) Apply knowledge of dyeing and printing for achieving aesthetic surface designs in fabrics.
4) Compare the traditional textiles and embroideries of India, including their origins, fabrics used in different states, motifs, typical colors, and fabrics.
5) Assess the historical significance and typical designs and fabrics used in various traditional textiles and clothing.

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A), KAKINADA

DEPARTMENT OF HISTORY

2024-25

Course outcomes

Semester – I Paper – 1 Fundamentals of Social Sciences (History Honors)

Paper Code: BA23101

Course Outcomes:

On successful completion of the course the student will be able to:

1. Learn about the nature and importance of social science.
2. Understand the Emergence of Culture and History
3. Know the psychological aspects of social behaviour
4. Comprehend the nature of Polity and Economy
5. Knowledge on application of computer technology

Semester – I Paper – II Perspectives on Indian Society

BA 23102(History Honors)

Course Outcomes:

1. Learn about the significance of human behaviour and social dynamics.
2. Remembers the Indian Heritage and freedom struggle
3. Comprehend the philosophical foundations of Indian Constitution
4. Knowledge on Indian Economy

Semester – I Paper – II Perspectives on Indian Society

BA23102 (History Honors)

Course Outcomes:

1. Learn about the significance of human behaviour and social dynamics.
2. Remembers the Indian Heritage and freedom struggle
3. Comprehend the philosophical foundations of Indian Constitution
4. Knowledge on Indian Economy

History Minor Semester-III

Medieval Indian Society: Paper Code: M- HIS24301

(Polity, Economy, and Culture) (1206 CE-1707 CE)

Course Outcomes:

➢ Know the Delhi Sultanate Rule and its Conditions.

➢ The Administrative Policies and Reforms of the Delhi Sultanate Kings

➢ Understand the nature of mediaeval Indian states.

➢ Get knowledge of the emergence of composite culture in India.

➢ Learn about the Bhakti Movement and the evolution of composite culture.

➢ Know the Marathas and Sikh political history.

B.A History Syllabus (w.e.f:2020-21A.B)
Semester – V (Skill Enhancement Course- Elective)

Course: 6B Tourism and Hospitality Services Paper Code: HIS225101 – 6B

Course Outcomes:

1. Understand hospitality as a career
2. Inculcate inter personal skills
3. Develop the ability for multi-tasking and crisis management
4. Understands the spirit of teamwork
5. Acknowledge the importance of guest service and satisfaction

Semester – V (Skill Enhancement Course- Elective)

Course: 7BTourism Guidance and Operating Skills Paper Code: HIS225102-7B

Course Outcomes:

1: Acquire tour guiding, operating and soft skills

2. Understand different situation sunder which one has to work
3. Cultivate cultural awareness and flexibility
4. Understand and apply team spirit

5. Plan and organize tour operations efficiently

History Major/ Minor Semester – II

1. Science and Human Past

Paper Code: HIS24201/ M- HIS24201

Course Outcomes:

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

➢ Students will understand the meaning of history and its relation to other social sciences and historical writing.

➢ Learn about the origin and evolution of human culture.

➢ Know how humans transformed from the Stone Age to the Iron Age.

➢ Understand the greatness of the first Indian civilization in the Indus Valley.

➢ Learn about the richness of Vedic culture

II Year B.A. Programme (UG) Paper-IV CBCS
II Semester Paper (Core Paper) B.A History (Honors)
4. Age of Enlightenment and State Formation in India

Paper Code: HIS24202

Course Outcomes:

- Know the philosophies of Indian religions.
- Learn about the formation of states and their growth.
- Know the causes of the rise of Magadha and its political history.
- Understand the Mauryans history and Ashoka Dhamma policy.
- Will know the significance of post-Mauryan conditions

History Minor

Semester-IV

3. Indian National Movement (1857-1947) M-HIS23401

Course Outcomes:

➢ Learn the reforms of British viceroys, i.e., Lord Lytton, Rippon, and Curzon.

➢ Study the important factors for the growth of Indian nationalism.

➢ Understand the young generation's enthusiasm to obtain independence at an early age.

➢ Visualise the idealistic policies of Mahatma Gandhi.

➢ Paved the way for obtaining independence

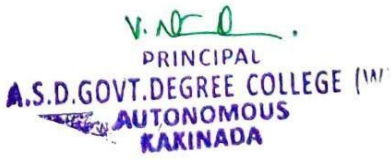
History Minor Semester-IV M-HIS23402

4. Social and Cultural History of Andhra Pradesh (up to 1956 CE)

Course Outcomes:

1. Visualise the various major and minor dynasties that ruled Andhradesa between the 11th and 16th centuries.
2. Know the advent of Europeans in Andhra and their trading settlement.
3. Learn about the socio-cultural awakening of Andhra during the 19th and early 20th centuries.
4. Examined the growth of the nationalist movement in Andhra Pradesh from 1885 to 1947.
5. Learn about the incidents that led to the formation of the first linguistic state in India.

Signature of Head of the Department



Signature of the Principal

ASD GOVERNMENT DEGREE COLLEGE FOR WOMEN (AUTONOMOUS), KAKINADA
DEPARTMENT OF ECONOMICS
COURSE OUTCOMES 2024-2025

Semester	Title of the Course	Course Outcomes
Semester I	**Fundamentals of Social Sciences BA24101**	CO1: Learn about the nature and importance of social science. CO2: Understand the Emergence of Culture and History CO3: Know the psychological aspects of social behavior. CO4: Comprehend the nature of Polity and Economy CO5: Knowledge on application of computer technology
Semester I	**Perspectives on Indian Society BA24102**	CO1: Learn about the significance of human behavior and social dynamics. CO2: Remembers the Indian Heritage and freedom struggle. CO3: Comprehend the philosophical foundations of Indian Constitution CO4: Know fundamentals of Economy. CO 5: Understand the impact of Technology on society.
Semester II	**Microeconomics ECO24201**	CO1: Explain what an economy is, economics and differentiate between micro and macroeconomics. CO2: Analyses the demand of a product and estimate elasticity. CO3: Estimate production function and understand its application. CO4: Analyze functioning of different markets and their differentiations. CO5: Examine the determination of rent, wage, interest and profit.
Semester II	**Mathematical Methods for Economics ECO24202**	CO1: Explain the basics of sets, functions, and their graphical representation. CO2: Learn the rules of differentiation and apply the same to economic problems. CO3: Learn and use maxima and minima to Optimization problems in economics. CO4: Apply rules of integration to estimate the size of consumers' and producers' surplus. CO5: Solve the economic problems through the application of the Matrix Theory
Semester – III	**Macroeconomics ECO23301**	**CO1:** Explain the functioning a macro economy with its inter-linkages and measure and analyse the national income of the country **CO2:** Analyse the Classical and Keynes theories of employment and its application in current Economy **CO3:** Explain the importance of money and banking along with their functions Analyse RBI policies **CO4:** Analyse causes and evaluate the measures to control inflation and trade cycles in the economy **CO5:** Evaluate the macroeconomic policy targets .

Semester – III	**Economic Thought and Political Economy ECO23302**	**CO1:**Explain the Economic thoughts of Pre-classical, Classical and Socialist. **CO2:**Explain Neo-classical, Keynes and Post-Keynesian economic thoughts. **CO3:**Analyse the essence of institutional and behaviourists' economic thoughts. **CO4:**Evaluate the contribution of Indian economists to the evolution of economic thought. **CO5**:Analyze the political economy in relation to development.
Semester – III	**Development Economics ECO23303**	**CO1:** Explain concepts of economic growth and development, measure them, identify their factors. **CO2:** Analyse the developmental issues of poverty, unemployment, inequality and sustainable development and suggest measures **CO3:** Comprehend the various theories of growth and development **CO4**: Examine and suggest various developmental strategies suitable to developing countries **CO5:** Explain the role of institutions, planning in economic development
Semester – III	**Public Economics ECO23304**	**CO1**: Explain and illustrate the basic concepts and principle of public finance **CO2**:Discuss various sources of public revenue, different theories of taxation, tax systems and incidence of taxation **CO3:** Analyse various principles, theories, practices of public expenditure with reference to public expenditure practices in India **CO4**: Explain the concept of debt burden and its effect, budget concepts and deficits with reference to Indian economy. **CO5:**Examine the importance of fiscal policy, fiscal federalism and discuss the role of finance commission with reference to India.
Semester – IV	**INDIAN AND A.P ECONOMY ECO23401**	CO1: Explain the basic characteristics, structural changes, planning and human development in Indian economy CO2: Analyse the changes in incomes, demography and the developmental issues such as poverty, inequality, unemployment and migration and suggest measures to address them CO3: Examine the components of agricultural and industrial sectors and their performance CO4: Examine the issues in public finance in terms of taxes, revenues, deficits and finance commission CO5: Analyse the issues in Andhra Pradesh economy related to agriculture, industry and welfare programs
Semester – IV	**Statistical Methods For Economics ECO23402**	CO1:Understand the nature of statistics and able to collect data using questionnaire CO2:Draws critical diagrams and graphs for presentation of data CO3:Calculates and Analyses Averages and Dispersions using

		given data and information CO4: Explains the uses of correlation and regression analysis, time series and index numbers in economic analysis. CO5: Calculate index numbers
Semester – IV	**International Economics ECO23402**	**CO1**: Explain the importance and concepts of international trade **CO2**: Make a critical analysis of the theories of international trade **CO3**: Explain changes in the methods of determining exchange rates **CO4**: Analyse the effects of Trade Barriers and protectionism in International Trade. **CO5**: Explain multilateralism, regionalism and India's international trade
Semester – V	**Insurance Services ECO225103-6C**	CO1: Explain the concept and principles of insurance service and functioning of insurance Service agencies; CO2. Identify and analyze the opportunities related insurance services in local rural area; CO3. Apply the concepts and principles of insurance to build a career in Insurance services; CO 4.Demonstrate practical skills to enable them to start insurance service agency or earn wage employment in it.
Semester – V	**Banking and Financial Services ECO225104-7C (1)**	**CO1:** Explain the concept and essentials of banking and financial services. **CO2:** Identify and analyse employment opportunities related to banks and other financial institutions. **CO3:** Apply concepts of banking and finance to formulate ideas related to emerging opportunities in the sector. **CO4:** Demonstrate practical skills to gain employment in banks and other financial institutions as business correspondents, Common Service Center operators, or marketing agents.

A.S.D.GOVT.DEGREE COLLEGE (W) AUTONOMOUS KAKINADA

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KAKINADA

Signature of Head of the Department.

Signature of the Principal

A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN (A), KAKINADA

DEPARTMENT OF POLITICAL SCIENCE

2024-25- COS

COURSE OUTCOMES:

SEMESTER - I

Paper – 1 Fundamentals of Social Sciences (BA24101)

1. Learn about the nature and importance of social science.

2. Understand the Emergence of Culture and History

3. Know the psychological aspects of social behaviour

4. Comprehend the nature of Polity and Economy

5. Knowledge on application of computer technology

Paper – II Perspectives on Indian Society (BA24102)

1. Learn about the significance of human behaviour and social dynamics.

2. Remembers the Indian Heritage and freedom struggle

3. Comprehend the philosophical foundations of Indian Constitution

4. Knowledge on Indian

Economy

SEMESTER - II

3. Fundamentals of Political Science (POL24201)

• Learn nature, importance, and relationship with other social sciences.

• Understand the traditional and modern approaches.

• Know the origin and evolution of the state.

• Comprehend the development of social contract theory.

• Understand the birth of modern state.

Paper - 4. Concepts & Ideologies of Political Science (POL24202)

1. Learn the significance of concept
2. Understand the law and liberty
3. Know equality and power and its constitution
4. Experience the rights and its theories
5. Understanding of Political ideologies

SEMESTER - III

Paper – V Political Institutions (POL23301)

Understand the organs of the government.
• Learn the theory of separation of powers.
• Comprehend the forms of government.
• Know the rights and its theories.
• Acquaint with political ideologies

PAPER-VI Indian Constitution (POL23302)

Know the origin and evolution of the Constitution.
• Understand of Constitutional Development of India.
• Comprehend the feature of Indian Constitution.
• Identify the rights and duties.
• Understanding the notion of theory of basic structure.

PAPER-VII

Indian Government (POL23303)

Know the President and Parliament of India.
• Understand the Prime Minister & Council of Ministers.
• Assess the Governor and his role.
• Reflect the role of Chief Minister and Council of Ministers.
• Judge the role of Judiciary.

PAPER-VIII

Indian Federal System (POL23304)

 Know the importance of Centre – State Relations.
• Learn the Indian federal process.
• Assess the electoral process in India.
• Estimate the Panchayat Raj System.
• Understand 73rd & 74th Constitutional Amendment Acts.

SEMESTER – IV

Paper-IX Dynamics of Indian Political System (POL23401)

Know the social dynamics of India.

• Understand the political dynamics.
• Measure the regulatory institutions in India.
• Acquaint with the governing mechanisms.
• Learn the role of Civil Services

Paper – X Western Political thought

Understand the fundamental contours classical, western political philosophy,
• Understand the concepts of Plato and Aristotle
• Understand the basic features of medieval political thought and shift from medieval to modem era.
• Understand the influence of religion and its impact on the State.
• Critically analyse the evolution of western political thought

PAPER-XI- INDIAN POLITICAL THOUGHT (POL23403)

1. Enriches about variety of ancient Indian political thoughts.
2. Understands the contributions of Kautilya.
3. Creates awareness on political ideologies of 19th century social reformers.
4. Familiarizes the political philosophy of religious reformers.
5. Imparts knowledge on nationalist political thinkers.

SEMESTER – V

Course 6 B: E GOVERNANCE CODE-(POL225105-6B)

. Acquaint student with the introduction to good governance and how it can be

Achieved by information and communication technology.

2. Understand the growing needs of E-Governance, improving transparency in the

System of governance

3. Have understanding of various government schemes and E-Governance projects and

Initiatives.

4. Provide the practical knowledge about the effective delivery of citizen services

Through online mode.

5. Realize the issues and challenges of E-Governance.

Course 7B: LOCAL ADMINISTRATION

CODE-(POL225106-7B)

Understand the existing context of Local Government Institutions in India.

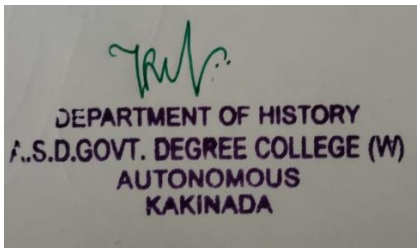
2. Have knowledge on the need of empowerment and autonomy of LGIs.

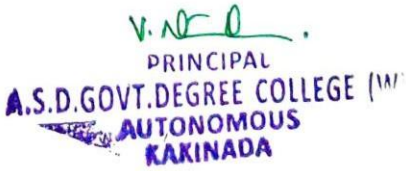
3. Provide an overview on financial resources and constitutional provisions.

4. Analyse the issues, problems and conflicts in Local Administration.

5. Develop communication skills to interact with the elected members and officials.

6. Enhance skills for observation, organizing, networking, documentation





A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A), KAKINADA

DEPARTMENT OF COMMERCE

COURSE OUTCOMES 2024-25

Programme	Semester	Course Codes	Course	Course Outcomes 2024-25
B.Com General/ Computer Applications/ BIFS	I		Fundamentals of Commerce	1 Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments.
				2. Develop the skill of accounting and accounting principles.
				3 They acquire knowledge on micro and micro economics and factors determine demand and supply.
				4. An idea of Indian Tax system and various taxes levied on in India. They will acquire skills on web design and digital marketing.
				5. Acquire skills on web designing, digital marketing and utilize data analytics to predict customer behavior.
B.Com General/ Computer Applications	I		Business Organization	Understand the concept and meaning, features, and stages of business development, and differentiate between industry, commerce, and profession.
				2. Able to Evaluate the key considerations for starting a business and compare different forms of business organizations.
				3. identify and analyze factors influencing plant location, layout, and business size, and assess criteria for optimum size.
				4. understand and discuss the roles of global financial institutions like IBRD, IMF, ADB, ECB, BIS, and NDB in international finance.
				5. Understand the evolution of computers, internet fundamentals, and ethical implications of technology

BA/BSC/B.Com	1		LEADERSHIP SKILLS	1. Develop comprehensive understanding of assessment of personality and techniques.
				2. Know how to assess and enhance one's own personality.
				3. Comprehend leadership qualities and their importance. Understand how to develop leadership qualities
BA/BSC/B.Com	I	Skill Course	ENTREPRENEURSHIP DEVELOPMENT	1. Understand the concept of Entrepreneurship, its applications and scope.
				2. Applies the knowledge for generating a broad idea for a starting an enterprise/start up and Understand the content for preparing a Project Report for a startup and differentiate between financial, technical analysis and business feasibility.
				4. Know various types of financial institutions that help the business at Central, State and Local Level, Understand Central and State Government policies, Aware of various tax incentives, concessions
B.Com General/ Computer Applications	II		Financial Accounting	1. Explain the need for accounting, its objectives, functions, and distinguish between bookkeeping and accounting, including the advantages and limitations of accounting
				2. Demonstrate the process of double-entry bookkeeping, including journalizing, posting to ledgers, and preparing subsidiary books and trial balance, with an introduction to computerized accounting systems.
				3. Prepare final accounts, including trading, profit & loss accounts, and balance sheets, using computer software.
				4. Understand the concept of depreciation, its causes, and apply different methods of calculating depreciation, including Straight Line, Written Down Value, and Annuity Method.
				5. Analyze consignment accounts, including accounting treatment for consigner and consignee, and distinguish between joint ventures and consignments, understanding their respective accounting procedures.
B.Com General/ Computer	II		Business	1. Define management and explain key principles of management by Henry Fayol and F.W. Taylor, along with understanding the functions and levels of management.

Applications			Management	2.Analyze the nature, importance, and process of planning, and evaluate different types of plans and decision-making processes.
				3. Explain the principles of organizing, delegation of authority, decentralization, and departmentation, and differentiate between organizational structures such as line, line & staff, and functional organizations.
				4.Discuss the functions of directing, including motivation theories (like Maslow's hierarchy), leadership styles, and motivation techniques.
				5.Understand the nature and importance of controlling, identify common problems in control, and apply control techniques and processes for effective coordination.
B.Com BIFS	II	Course 4	Fundamentals Of Accounting	1. Identify transactions and events that need to be recorded in the books of accounts.
				2. Equip with the knowledge of accounting process and preparation of subsidiary books.
				3. Develop the skill of recording financial transactions and preparation of Trial Balanceand rectification of errors.
				4. Analyse the difference between cash book and pass book in terms of balance and make reconciliation.
				5. Develop the skill of preparation of balance sheets of a sole trader for different accounting periods
BA/BSC/B.Com	II		Marketing Skills	1. Formulate a marketing plan that will meet the needs or goals of a business ororganization and Conduct market research to provide information needed to make marketing decisions.
				2. Understand different strategies for effective design of Marketing Mix
				3. Know the Sales Skills including effective personal selling skills
Minor for B.Com CA	II		Financial	CO1 Understand the role of financial services and distinguish between banking and non-banking financial companies, along with their fund-based and fee-based activities.

			Services	CO2: Analyze the scope and importance of merchant banking services, including venture capital, securitization, and demat services.
				CO3 Explain the types of leases, legal aspects, and rental evaluation, and understand the concepts of hire purchase and securitization of debts.
				CO4 Explain the types of leases, legal aspects, and rental evaluation, and understand the concepts of hire purchase and securitization of debts.
				CO5: Assess the purpose and types of credit ratings, understand credit rating symbols, and evaluate the roles of agencies like CRISIL and CARE.
B.Com General/ Computer Applications	III		Advanced Accounting	1. Understand the concept of Non-profit organizations and its accounting process,
				2.Comprehend the concept of single-entry systemDouble Entry system,
				3.Familiarize with the legal formalities at the time of Hire Purchase System.
				4. Understand and preparation of the Partnership Accounts and Prepare financial statements for partnership firm on dissolution of the firm.
				5. Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.
B. Com General/ Computer Applications	III		Business Laws	1 Explain the meaning, definition, and essential elements of a valid contract, and differentiate between valid, void, and voidable contracts under the Indian Contract Act, 1872
				2. 2. Analyze the essential elements of a valid offer, acceptance, and consideration, and understand their significance in contract formation
				3. Understand the rules regarding minors' contracts, contingent contracts, and the different modes of discharge, along with remedies for breach of contract.
				4. . Explain the key provisions of the Sale of Goods Act, 1930, and the Consumer Protection Act, 2019, focusing on sale agreements,

				conditions, warranties, rights of unpaid vendors, consumer rights, and the redressal mechanism
				5. Understand the Overview of Cyber Law and Safety Mechanisms
B. Com General/ Computer Applications	III		Income Tax	1. Understand the basic concepts of the Income Tax Act, including income, assesses, assessment year, residential status, and exemptions from tax.
				2. Analyze the tax treatment of salaries, allowances, perquisites, and deductions, and compute income from salaries.
				3. Compute income from house property and profits from business, identifying allowable and disallowed expenses
				4. Explain capital gains and income from other sources, and compute long-term and short-term capital gains.
				5. Compute the total income of an individual, including deductions under Section 80.
B. Com General	III		Banking Theory and Practice	1.Understand the meaning and functions of commercial banks, and explain the process of credit creation and the differences between central banking and commercial banking.
				2. Analyze different banking systems such as unit banking, branch banking, and investment banking, and explore innovations like e-banking, RTGS, NEFT, and mobile banking.
				3. Describe the types of banks, including indigenous banks, cooperative banks, regional rural banks, SIDBI, NABARD, and EXIM Bank, and their roles in the financial system.
				4. Explain the general and special relationships between bankers and customers, including KYC norms and the responsibilities involved.
				5. Understand the duties and responsibilities of collecting and paying bankers, along with the concepts of holder for value, holder in due course, and payment gateways.
B. Com General/	IV		Money, banking	1. Define money, explain its functions and classifications, and analyze its role in capitalist, socialist, and mixed economies,

Computer Applications			and Financial Services	including theories of money supply determination and the RBI's approach to money supply.
				2. Describe the types and functions of banks, the process of credit creation, and the liabilities and assets of banks, along with an overview of commercial banking in India and the implications of recent banking sector reforms.
				3. Explain the functions of a central bank, including quantitative and qualitative methods of credit control, and analyze the role of the Reserve Bank of India in the financial system.
				4. Understand the role of financial markets and institutions, differentiate between the money market and capital market, and analyze the types of financial instruments and innovations, including the structure of various financial markets in India.
				5. Analyze interest rate determination, explore sources of interest rate differentials, and evaluate theories of the term structure of interest rates.
BA/B.Com/ B.Sc	III		Business Forecasting	1.To understand need and importance of Business forecasting.
				2.To Know various types of Business forecasting Techniques.
				3. To develop an understanding of application of forecasting tools in Business through applications of technology.
B. Com General/ Computer Applications	IV		Corporate Accounting	1. Understand the kinds of shares, including types of preference shares, and analyze the accounting treatment for the issue of shares at par, discount, and premium, including forfeiture and reissue of shares, and the implications of issuing bonus shares and buybacks.
				2. Analyze the accounting treatment for debentures issued and repayable at par, discount, and premium, including practical problems related to the issue and redemption of debentures.
				3. Explain the need for goodwill valuation and apply various methods, including the average profit method, super profits method, capitalization method, and annuity method, to solve valuation problems.

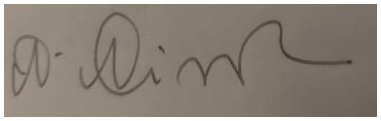
				4. Understand the need for share valuation and apply different methods, including the net assets method, yield basis method, and fair value method, to solve valuation problems.
				5. Prepare final accounts of companies in accordance with the provisions of the Companies Act, 2013, including adjustments related to the profit and loss account and balance sheet, and solve related problems
B. Com General/ Computer Applications	IV		Cost & Management Accounting	1. Define cost accounting and management accounting, and explain their features, objectives, functions, and scope, including the preparation of a cost sheet with practical problems.
				2. Analyze techniques of inventory control and apply various methods for the valuation of material issues, including FIFO, LIFO, simple average, and weighted average methods.
				3. Understand direct and indirect labor costs, and apply different methods of wage payment and incentive schemes, including time rate, piece rate, Halsey, Rowan, and Taylor methods, with related problems.
				4. Evaluate financial statements and understand their features and limitations, while applying techniques for financial statement analysis, including comparative analysis, common size analysis, and trend analysis.
				5. Explain the meaning and features of marginal costing, and calculate contribution, profit-volume ratio, break-even point, margin of safety, and estimations of profit and sales, including practical problems.
BA/B.com/B.Sc	IV		Digital Marketing	1.Know the emerging trends in digital marketing and applicable knowledge of various digital marketing tools.
				2.Build a functional website with the help of WordPress and exposure to Search Engine Optimization tools
				3.Understand the different types of Social Media Marketing Techniques
	IV		Design	1.To understand the principles and fundamentals of Design Thinking as a problem- solving methodology

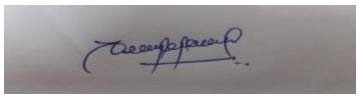
BA/B.com/B.Sc			Thinking	2.To foster creative thinking and ideation techniques to generate innovative solutions.
				3.To learn rapid prototyping methods for iterative testing and refinement of design concepts.
B. Com General/ Computer Applications	IV		AUDITING	1. Understanding the meaning and necessity of audit in modern era, Comprehend the role of auditor in avoiding the corporate frauds
				2. Identify the steps involved in performing audit process,
				3. Determine the appropriate audit report for a given audit situation,
				4. Apply auditing practices to different types of business entities and
				5.Plan an audit by considering concepts of evidence, risk and materiality
B. Com Computer Applications	IV	Minor I	Derivatives & Risk Management	Define derivatives and explain their types, uses, and the differences between exchange-traded and OTC derivatives, along with an overview of the regulatory framework governing derivatives trading in India and SEBI guidelines
				Understand basic hedging practices, including forward contracts and their limitations, and introduce futures, stock index futures, commodity futures, and currency futures, highlighting the distinctions between futures and forwards, as well as pricing principles and optimal hedge ratios.
				Explain option terminology and types, including European and American calls and puts, exotic and Asian options, and analyze option pricing and strategies, emphasizing the concept of put-call parity.
				Describe the concept of swaps, including interest rate swaps and currency swaps, and discuss credit risk and the mechanics of swaps in financial markets.
				Apply risk management techniques using derivatives, including hedging strategies with Greeks, futures, index options, and futures, and understand the structure and policies of risk management in India, including Value at Risk (VaR) and historical simulations.

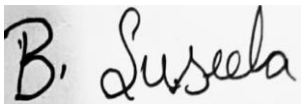
B. Com Computer Applications		Minor II	Portfolio Management	1. Define the concept of investment, differentiate between investment and speculation, and explain various forms of investment, including security and non-security investments, alongside the investment environment in India and the investment process.
				2.Identify and categorize different types of risks and returns, and calculate risk using standard deviation, variance, beta estimation, and alpha and beta coefficients, while understanding investors' attitudes toward risk and return.
				3.Understand SEBI guidelines for investor protection, identify the role of portfolio managers, and describe the portfolio management services and methods of operation, including career opportunities in portfolio management.
				4.Analyze the elements of portfolio management and apply various portfolio models, including the Markowitz Model, Efficient Frontier, Sharpe Single Index Model, Capital Asset Pricing Model, and Arbitrage Pricing Theory.
				5. Explain portfolio theory, including Markowitz Theory and Sharpe's Model, and apply the Jensen and Treynor Models in portfolio management, including solving simple problems related to these concepts.
B. Com General/ Computer Applications	V		Management Accounting & Practice	1 Understand the nature and scope of management accounting, its principles, significance, and limitations, and differentiate it from financial and cost accounting, while exploring tools for effective management accounting.
				2. Analyze financial performance using ratio analysis by calculating and interpreting various types of ratios, including profitability, solvency, and turnover ratios, while understanding the advantages and limitations of ratio analysis.
				3. Define working capital and its importance, and prepare a fund flow statement, understanding its meaning and uses in assessing financial health and operational efficiency.
				4.Apply the principles of cash flow analysis as per AS3 by preparing cash flow statements, understanding their meaning, uses, and the differences between cash flow

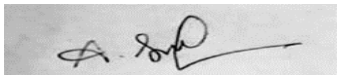
				statements and fund flow statements, along with the preparation of cash budgets, fixed budgets, and flexible budgets.Prepare cash budget, fixed budget and flexible budget.
				5.Explain the importance of management reporting by identifying the requisites of a good report, understanding different modes and kinds of reporting, and formulating strategies for effective management reporting while contrasting financial reporting with management
B. Com General/ Computer Applications	V		Cost Control Techniques	1. Understand the meaning and significance of cost control and cost reduction, explore various techniques and requisites for an effective cost control system, and differentiate between cost control and cost reduction, along with their respective scopes and essentials for implementation.
				2. Explain the concept of Activity-Based Costing (ABC), its characteristics, and categories, and analyze the allocation of overheads under ABC, along with the advantages of implementing ABC and understanding the meaning and types of cost audit, including auditing techniques.
				3. Apply Cost-Volume-Profit (CVP) analysis in decision-making scenarios such as profit planning, performance evaluation, pricing strategies, key factor analysis, make-or-buy decisions, and the implications of closing down or suspending activities, utilizing the principles of marginal costing.
				4. Define standard costing and its importance, analyze the advantages and limitations of standard costing, and perform variance analysis by computing and applying variances related to material and labor, understanding their significance in performance measurement.
				5. Explore modern costing techniques such as Kaizen costing and learning curve analysis by understanding their objectives, principles, advantages, and disadvantages, and applying the 5S methodology within the context of Kaizen costing to enhance cost management practices.

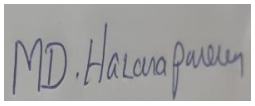
B. Com General/ Computer Applications	V		General Insurance Procedure & Practice	1. Understand the Features of General Insurance and Insurance Companies in India
				2. Analyze various schemes and policies related to General Insurance sector
				3. Choose suitable insurance policy under Health, Fire, Motor, and Marine Insurances
				4. Acquire General Insurance Agency skills and administrative skills
				5. Apply skill for settlement of claims under various circumstances
B.Com General/ Computer Applications	V		Life Insurance with Practice	1. Understand the Features of Life Insurance, schemes and policies and insurance companies in India.
				2. Analyze various schemes and policies related to Life Insurance sector
				4. Acquire Insurance Agency skills and other administrative skills
				5. Acquire skill of settlement of claims under various circumstances
B.Com General	V		Service Marketing	1. Discuss the reasons for growth of service sector.
				2. Examine the marketing strategies of Banking Services, insurance and education services.
				3. Review conflict handling and customer Responses in services marketing
				4. Describe segmentation strategies in service marketing.
				5. Suggest measures to improve services quality and their service delivery
B.Com General	V		Digital Markeing	1. Analyze online Micro and Macro Environment
				2. Design and create website
				3. Discuss search engine marketing
				4. Create blogs, videos, and share
				5. understanding the social media marketing

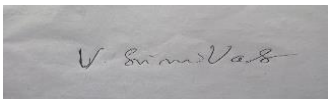


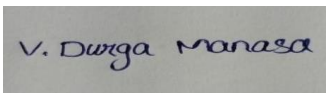










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A.S.D. GOVERNMENT DEGREE COLLEGE FOR WOMEN(A)
KAKINADA
DEPARTMENT OF COMPUTER SCIENCE
B.Com (Computer Applications)
COURSE OUTCOMES

2024 - 2025

SEMESTER -I

Course: 1 FUNDAMENTALS OF COMMERCE

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

CO1: Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments.

CO2: Develop the skill of accounting and accounting principles.

CO3: Acquire knowledge on micro and microeconomics and factors determine demand and supply.

CO4: An Idea of Indian Tax system and various taxes levied on in India. They will acquire skills on web design and digital marketing.

CO5: Acquire skills on web design, digital marketing and utilize data analytics to predict customer behaviour.

Course:2 BUSINESS ORGANISATION

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

CO1: Understand the concept and meaning, features and stages of business development and differentiate between industry, commerce and profession.

CO2: Able to evaluate the key considerations for starting a business and compare different forms of business organizations.

CO3: Identify and analyze factors influencing plant location, layout, and business size, and assess criteria for optimum size.

CO4: Understand and discuss the roles of global financial institutions like IBRD, IMF, ADB, ECB, BIS, and NDB in international finance.

CO5: Understand the evolution of computers, internet fundamentals, and ethical implications of technology.

SEMESTER-II

Course: 3 OFFICE AUTOMATION TOOLS

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

CO1: Understand concept of Word Processor and use its features.

CO2: Make use of advanced features of Ms-Word to make day to day usage easier.

CO3: Apply Formatting Techniques to Worksheets.

CO4: Create and customize the work sheets and user advanced feature of Excel.

CO5: Make use of presentations and inserting multimedia in them.

SEMESTER-III

Course: 4 E COMMERCE AND WEB DESIGNING

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

CO1: Understand E-Commerce websites and their functionality

CO2: Identify different types of Business

CO3: Analyze e-commerce data to make informed business decisions, including sales tracking, customer behavior analysis, and market trend identification.

CO4: Design Websites using HTML

CO5: Apply styles to the websites created using CSS

Course: 5 DIGITAL MARKETING

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

CO1: Evaluate the characteristics and strategies of digital marketing.

CO2: Analyze the Performance of Online Advertising Campaigns.

CO3: Identify and differentiate between various types of emails used in marketing campaigns.

CO4: Create and assess social media marketing strategies, utilizing various tools and platforms

CO5: Apply SEO techniques to optimize web content for search engines

SEMESTER-IV

Course: 6 Database Management Systems with Oracle

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

CO1: Identify key characteristics, advantages, and various applications of database systems

CO2: Apply Codd's rules and key constraints to design and normalize relational database schemas.

CO3: Construct and interpret Entity-Relationship (ER) diagrams and apply basic SQL commands

CO4: Make use of SQL to retrieve and maintain relational database.

CO5: Demonstrate various constructs in PL/SQL

SEMESTER-V

Course: 7 BIG DATA ANALYTICS USING R

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

CO1: Understand data and classification of digital data.

CO2: Distinguish between big data analytics and traditional analytics.

CO3: Demonstrate the fundamentals of the R programming language.

CO4: Utilize R to manage and analyze data frames, with various functions

CO5: Create and interpret a variety of data visualizations in R.

SEMESTER-V

Course: 8 DATA SCIENCE USING PYTHON

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

CO1: Understand basic concepts of data science

CO2: Write and execute Python Programs.

CO3: Use standard programming constructs like selection and repetition.

CO4: Define and call functions, utilize different types of functions arguments.

CO5: Implement functions and modules.

SEMESTER-V

Course: 9 MOBILE APPLICATION DEVELOPMENT

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

CO1: Identify basic terms, tools and software related to android systems

CO2: Describe components of IDE, understand features of android development tools

CO3: Develop user interfaces by effectively utilizing various layout.

CO4: Explain the features of services and able to publish android Application

CO5: Developing interesting Android applications using MIT App Inventor

SEMESTER-V

Course: 10 CYBER SECURITY AND MALWARE ANALYSIS

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

CO1: Understand the computer networks, networking tools and cyber security

CO2: Describe the components, functions, and tiers of the NIST Cyber Security Framework.

CO3: Identify and analyze the OWASP Vulnerabilities

CO4: Implement various Malware analysis tools

CO5: Analyze the global landscape of cybercrime legislation and Information Technology act 2000.

SEMESTER-V

Course: 11E– COMMERCE APPLICATION DEVELOPMENT

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

CO1: To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.

CO2: To understand the factors needed in order to be a successful in ecommerce.

CO3: To gain the skills to bring together knowledge gathered about the different components of building a web presence.

CO4: To critically think about problems and issues that might pop up during the establishment of the web presence.

CO5: To apply Word Press as a content management system (CMS), Plan their website by choosing colour schemes, fonts, layouts, and more.

SEMESTER-V

Course: 12 REAL TIME GOVERNANCE SYSTEM (RTGS)

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

CO1: Understand the terms regarding Governance, E-Governance and RTGS

CO2: Learn about E-Governance Infrastructure

CO3: Understand the E-Governance implementation in several countries

CO4: Understand the E-Governance implementation in several Indian states

CO5: Understand the applications of RTG

SEMESTER-V

Course: 13MULTIMEDIA TOOLS AND APPLICATIONS

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

CO1: Gain knowledge on the concepts related to Multimedia.

CO2: Understand the concepts like image data representation and colour modes.

CO3: Understand the different types of video signals and digital audio.

CO4: Know about multimedia data compression types and audio compression standards

CO5: Know about basic video compression techniques.

SEMESTER-V

Course:14 DIGITAL IMAGING

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

CO1: Gain knowledge about Types of Graphics, Types of Objects and Types of video editing tools

CO2: Show their skills in editing and altering photographs for through a basic understanding of the toolbox.

CO3: Gain knowledge in using the layers.

CO4: Gain knowledge in using the selection tools, repair tools.

N.N.S. Eswari
Signature of the HOD
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