

775/509/JULY25/II-A

FACULTY OF SCIENCE
M. Sc (ENGG.PHYSICS & INSTR. AND PHYSICS) II SEM EXAMINATIONS JULY 2025
STATISTICAL MECHANICS
PAPER - I

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. **Answer ALL the following**

- a) What is quantization of phase space?
- b) Define entropy in Γ space and show that state of equilibrium is maximum entropy state.
- c) Define super fluidity.
- d) Apply Fermi-Dirac Statistics and obtain magnetic susceptibility of free electrons.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions

2. a) What is density of distribution? State and prove Liouville theorem?

OR

b) Discuss classical and quantum statistics in detail.

3. a) What are micro canonical and grand canonical ensembles discuss in detail.

b) Entropy of an ideal gas.

OR

c) Write down the translational, rotational and Vibrational partition functions.

4. a) Equation of state of an ideal Bose-Einstein gas.

OR

b) Explain, how Debye corrected the Einstein theory of specific heat of solids.

5. a) Deduce expression for electrical conductivity from Boltzmann-transport equation.

OR

b) What are white dwarfs?

c) Define first and second order phase transitions.

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506/JULY25/II-A

FACULTY OF SCIENCE
M.Sc. (STATISTICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SAMPLING TECHNIQUES
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain cumulative total method for drawing a sample with replacement.
- b Explain regression method of estimation.
- c Obtain an expression for optimum cluster size when cost function 'c' is fixed.
- d Explain non-sampling bias and give its bias.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Define Hansen-Horvitz estimator of population mean and total and derive an expression for its variance?

OR

- B Obtain Horvitz-Thompson estimator of population mean and derive an expression for its variance.

- 3 A Derive the variance of ratio estimator with mean per unit under simple random sampling?

OR

- B Define separate and combined regression estimators. Derive the variance of separate regression estimator.

- 4 A Obtain the expression for the variance of sample mean per element in terms of Intra-cluster correlation coefficient

OR

- B Explain two stage-sampling method. Obtain an unbiased estimator of population mean and variance in case of two stage sampling.

- 5 A Explain in detail about (i) Pilot survey and (ii) Processing of survey data

OR

- B Explain the various sources and treatment of sampling and non-sampling errors.

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FACULTY OF SCIENCE
M.Sc. (NUTRITION & DIETETICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PRINCIPLES OF FOODS
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain factors affecting gluten formation.
- b Write the classification of fishes.
- c Explain caramelization.
- d Explain the methods to prevent enzymatic browning.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the nutrient changes during different treatment methods of cereal grains.

OR

- B Describe the effect of soaking, germination and fermentation of pulses.

- 3 A Describe the role of egg as binding, foaming and emulsifying agent.

OR

- B Discuss the post mortem changes in meat along with changes during cooking.

- 4 A Describe in detail rancidity and its types, mechanism and methods of control.

OR

- B Discuss the stages of sugar cookery in the preparation of non-crystalline candies.

- 5 A Discuss the different flavouring compounds.

OR

- B Discuss the objective tests to assess the sensory properties of foods with special reference to colour and texture.

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FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) II SEMESTER (CBCS R-22) EXAMINATIONS, JULY 2025
ABSTRACT ALGEBRA-II
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)1 **Answer ALL the questions.**

- a Prove that an irreducible element in a commutative principal ideal domain is always prime.
- b Show that $x^4 + 8 \in \mathbb{Q}[x]$ is irreducible over $\mathbb{Q}$.
- c Find a suitable number x such that $\mathbb{Q}(\sqrt{2}, \sqrt{5}) = \mathbb{Q}(x)$.
- d Find the degree of the extension of the splitting field of $x^3 - 2 \in \mathbb{Q}[x]$.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A (i) Prove that every PID is a UFD, but a UFD is not necessarily a PID.
 (ii) Prove that every Euclidean domain is a PID.
OR
 B (i) If R is a UFD, then prove that the factorization of any element in R as a finite product of irreducible factors is unique to within order and unit factors.
 (ii) Show that $\mathbb{Z}[\sqrt{-6}]$ is not a Euclidean domain.
- 3 A Let R be a unique factorization domain. Then, prove that the polynomial ring $R[x]$ over R is also a unique factorization domain.
OR
 B (i) R be a UFD, and let S be a multiplicative subset of R containing the unity of R . Then, show that R_S is also a UFD.
 (ii) State and prove Eisenstein criterion.
- 4 A (i) Let $F \subseteq E \subseteq K$ be fields. If $[K:E] < \infty$ and $[E:F] < \infty$, then prove that $[K:F] < \infty$ and $[K:F] = [K:E][E:F]$.
 (ii) Let E be an algebraic extension of F , and let $g: E \rightarrow E$ be an embedding of E into itself over F . Then, prove that g is onto and, hence, an automorphism of E .
OR
 B Let F be a field. Then, prove that there exists an algebraically closed field K containing F as a subfield.
- 5 A (i) State and prove the uniqueness property of splitting fields.
 (ii) Construct the splitting field over $\mathbb{Q}$ for the polynomial $x^3 - 1$.
OR
 B (i) Is $\mathbb{R}(\sqrt{-5})$ normal over $\mathbb{R}$?
 (ii) If $f(x) \in F[x]$ is irreducible over F . then show that all roots of $f(x)$ have the same multiplicity.

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517/JULY25/II-A

FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) II SEMESTER (CBCS) EXAMINATIONS JULY 2025
STATISTICAL INFERENCE
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (4 x 5 = 20 Marks)

1 Answer ALL the questions

- a Define an unbiased estimator. Give an example.
- b What is the jackknife resampling method? Mention its main use.
- c What is the Sequential Probability Ratio Test (SPRT)?
- d What is the purpose of Rosenblatt's naïve density estimator in non-parametric statistics? State the bias and variance properties.

SECTION – B (4 x 15 = 60 Marks)

Answer ALL questions

- 2 A** Explain the desirable properties of a good estimator with suitable examples.

OR

- B** Derive the Cramér-Rao inequality and discuss its implications for the efficiency of estimators.

- 3 A** Explain the Maximum Likelihood Estimation (MLE) method and discuss its properties with suitable examples.

OR

- B** Describe the Bootstrap and Jackknife methods for estimating bias and standard deviation of point estimators with examples.

- 4 A** Explain the Likelihood Ratio Test procedure and its applications in hypothesis testing.

OR

- B** Discuss non-parametric tests such as the Kruskal-Wallis test and Kolmogorov-Smirnov test, including their assumptions and applications.

- 5 A** Explain Kernel density estimation. Discuss the bias, variance, and consistency of kernel density estimators.

OR

- B** Discuss the Metropolis-Hastings and Gibbs sampling algorithms in detail, with their applications in Bayesian computation.

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502/JULY25/II-A

FACULTY OF SCIENCE
M.Sc. (BOTANY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
GYMNOSPERMS AND EMBRYOLOGY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Gymnosperms in India.
- b Pteridospermales.
- c Ovule.
- d Parthenocarpy.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write about the classification of gymnosperms proposed by Sporne.

OR

B Describe the wood anatomy of conifers.

3 A Explain the vegetative morphology and anatomy of *Taxus*.

OR

B Outline the important aspects of male and female cones of *Ephedra*.

4 A Explain the important aspects of pollen wall, generative and vegetative nucleus.

OR

B Write about the different types of embryo sacs of gymnosperms.

5 A Discuss on the development and types of endosperms.

OR

B Describe the process of double fertilization and self -incompatibility in gymnosperms.

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504/JULY25/II-A

FACULTY OF SCIENCE
M.Sc. (COMP SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
COMPUTER ORGANIZATION
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain briefly about Flip-Flops.
- b Write a short note on Integer Division.
- c List out Standard I/O Interfaces.
- d Write a short note on different kinds of Memory.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A i) Explain in detail about PHDs.
 ii) Explain about Sequential Circuits.

OR

- B i) Explain the synthesis of Logic Functions using AND, OR and NOT Gates.
 ii) Explain about Practical Implementation of Logic Gates.

- 3 A i) Explain about Micro Programmed Control.
 ii) Implement Signed Addition and Subtraction with an example.

OR

- B i) Explain the process of Execution of a Complete Instruction.
 ii) Discuss briefly about Hardwired Control.

- 4 A Write a detailed note on Motorola 680X0 Family.

OR

- B Discuss in detail about the Alpha AXP Family.

- 5 A Explain in detail about I/O Devices and Online-Storage.

OR

- B i) Explain in detail about Semiconductor RAM memories.
 ii) List out the Performance Considerations.

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FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE & TECH.) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PRINCIPLES OF FOOD ENGINEERING
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain radiation.
- b What is sterilization and its principle.
- c Explain the principle of centrifugation.
- d Explain size separation.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A (i) Determine the amount of a juice concentrate containing 65% solids and single strength juice containing 15% solids that must be mixed to produce 100 kg of a concentrate containing 45% solids.
 (ii) Discuss the modes of heat transfer.

OR

- B (i) Calculate the heat required to raise the temperature of a 4.535 kg (10 lb) roast containing 15% protein, 20% fat, and 65% water from 4.44°C (40°F) to 65.55°C (150°F). Express this energy in (a) BTU, (b) joules, and (c) watt-hour.
 (ii) Explain Fourier law.

- 3 A (i) The F₀ for 99.999% inactivation of *C. botulinum* type B is 1.1 minutes. Calculate F₀ for 12D inactivation, and the F value at 275°F (135°C) when $z = 18^\circ\text{F}$.
 (ii) Give a brief account on equipment used for distillation.

OR

- B Describe the theory of crystallization along with equipment used.

- 4 A Discuss the factors influencing filtration.

OR

- B Discuss the classification of centrifuges along with equipment's used.

- 5 A Describe the mechanism of size reduction.

OR

- B Discuss the equipment's used for size separation.

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526/JULY25/II-A

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
STRUCTURE AND FUNCTIONS OF VERTEBRATES
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write the significance of Protochordates in the Evolution.
- b Describe Jaw Suspension.
- c Explain Airsacs in Birds.
- d Write about Autonomous Nervous system.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Elaborate on Vertebrate Integument development, structure of skin in vertebrates.

OR

- B Emphasize on Origin of chordata and classification you have studied.

- 3 A Concise the comparative account of girdles and limbs.

OR

- B Explain anatomy of gut in relation to feeding habits of carnivores and omnivores.

- 4 A Describe cranial and peripheral nerves in detail.

OR

- B Elucidate sense organs and receptors . write notes on lateral line system and electric organs.

- 5 A Describe evolution of Heart.

OR

- B Explain evolution of Urino-genital system in vertebrates.

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518/JULY25/II-A

FACULTY OF SCIENCE
M.Sc. (MICROBIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MOLECULAR BIOLOGY AND MICROBIAL GENETICS
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Enzymes involved in DNA replication
- b Wobble hypothesis
- c Replica plating
- d Linkage mapping

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write a detailed account on gene organization in eukaryotes.

OR

B Describe the general account on nature, classification, properties and replication of plasmids.

3 A Give a schematic representation of structure and processing of m-RNA, r-RNA t-RNA.

OR

B Discuss the brief account on gene regulation in eukaryotic systems.

4 A Describe the detailed account on physical and chemical mutagenic agents.

OR

B Explain the process of DNA damage and its repair mechanisms.

5 A Write the discovery, gene transfer and efficiency of bacterial recombination.

OR

B What is transduction? Give the concept of phenomenon and methods of transduction.

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FACULTY OF SCIENCE
M.Sc. (CHEMISTRY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
INORGANIC CHEMISTRY - II
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL Questions

- a. Write about Activated Complex?
- b. Write a note on L-S coupling scheme?
- c. Write the factors favoring Metal-Metal bonding?
- d. Write a short note on the metal ions in the biological systems?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

2. a) Explain the types of substitution reactions?
 b) Write about the factors effecting Acid Hydrolysis reactions?

OR

- c) Explain about Trans effect and its theories?
 d) Write about Marcus-Hush theory?
3. a) Explain about p^n and d^n configurations?
 b) Write about Hole formalism?

OR

- c) Explain about Racah parameters?
 d) Write about Jahn-Teller theorem and its effects ?
4. a) Write the classification of Clusters?
 b) Explain about Polyhedral skeletal electron pair theory?

OR

- c) Explain about Tetragonal prismatic and Trigonal antiprismatic structures?
 d) Write about Hoffman's Isolobal analogy ?
5. a) Write the effect of metal ion concentration and its physiological effects?
 b) Explain about the role of globin chain ?

OR

- c) Explain about photosystem I?
 d) Write about Dealdolation in the presence of metal ions?

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FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FOOD MICROBIOLOGY AND SAFETY
PAPER – I

Time:3 Hrs]

[Max.Marks:80

SECTION-A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain growth curve of microorganisms.
- b Write the spoilage of eggs caused by fungi.
- c Explain the classification of foods borne diseases with examples.
- d Explain the intrinsic factors affecting the growth of microorganisms.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Discuss antagonism and synergism in microorganisms.

OR

B Describe the spoilage of milk caused by microorganisms.

3 A Discuss the spoilage of cereal products-bread caused by microorganisms.

OR

B Describe the general spoilage of meat under aerobic conditions.

4 A Discuss in detail food poisoning caused by microorganisms.

OR

B Describe the hygienic and sanitation practices in food operations.

5 A Discuss the spoilage caused by thermophilic and mesophilic bacteria in canned foods.

OR

B Write short notes on (i)Pest control of insects in food industry (ii) Microbial growth in food.

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410/JULY25/II-A

FACULTY OF COMMERCE
M.COM. II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ORGANISATIONAL THEORY AND BEHAVIOUR
PAPER-I

Time: 3 Hrs]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the questions

- a) What are the principles of Organisation?
- b) Personality.
- c) Group cohesiveness.
- d) Line and Staff organisation.
- e) Stress Management.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2. a) What is Organisational Behaviour? Discuss significance of Organisational Behaviour.
(OR)
b) Briefly explain emergence and emerging challenges to organisational behaviour.
- 3. a) What is Perception? State perception process and distortions in perception.
(OR)
b) What is Attitude? Explain various formations of attitudes.
- 4. a) Briefly explain the differences between group development and team development.
(OR)
b) How to overcome the conflicts in organisation explain some techniques
- 5. a) What is Organisational design? Explain various types of organisational design.
(OR)
b) Briefly explain the types and advantages of span management.
- 6. a) What is Leadership? Explain various styles of leadership.
(OR)
b) What is Motivation? Explain different theories of motivation

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313/JULY25/II-A

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A (ECONOMICS) II SEMESTER EXAMINATIONS, JULY 2025
MICRO ECONOMICS-II
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a Concept of limit pricing model
 - b Quasi rent
 - c Assumption of compensation principle
 - d Social welfare function
 - e Concept of risk aversion

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain the Baumol's theory of sales revenue maximization.
- OR**
- B Examine the Sylos-Labini's limit pricing model with assumptions.
- 3 A Discuss the modern theory of rent. How it is superior than Neo-classical theory of rent.
- OR**
- B Analyze the Euler's solutions to product exhaustion theorem.
- 4 A Explain the main features of market equilibrium.
- OR**
- B Describe the Marshall conditions about general equilibrium.
- 5 A Describe the Pareto optimum conditions for maximization of welfare.
- OR**
- B Analyze the features and significance of social welfare function.
- 6 A Examine the Neumann- Morgenstem index to measuring utility.
- OR**
- B State the differences between Gambling and Insurance.

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FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MODERN SOCIOLOGICAL THEORIES
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL Questions

- a) Social Evolution
- b) Power Elite
- c) Intellectual and Education
- d) Neo-Marxism
- e) Structuralism

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2. A) Can Parsons AGIL framework be used to analyse key problems in a society? Discuss.
OR
B) Explain Mertons Functionalist Theory?
- 3. A) Explain George Simmels concept of Individual consciousness – Sociability?
OR
B) Discuss the views of CW Mills on Social Imagination.
- 4. A) Explain Gramscis concept of Hegemony?
OR
B) What a critique on Economism and Materialism.
- 5. A) Explain CH Cooley's Symbolic interactionism theory?
OR
B) Explain Social Exchange Theory propounded by Peter Blau?
- 6. A) Discuss Anthony Gidden views on Structure, Agency and Structuration?
OR
B) What is Phenomenology? Discuss.

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FACULTY OF SOCIAL SCIENCES
M. S.W II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
INDIVIDUAL AND SOCIETY
PAPER - I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL Questions

- a. Scope of Sociology
- b. Culture
- c. Social Differentiation
- d. Social Control
- e. Modernization

SECTION - A (5 X 12 = 60 Marks)

Answer ALL Questions

2. a) Explain changing patterns and consequences of social institutions in India.

OR

- b) Explain the theories of Individuals and society.

3. a) Discuss various components and attributes of culture.

OR

- b) Explain theories of socialization.

4. a) Explain the components of Social Structure

OR

- b) Discuss social processes and defend the necessity of cooperation and accommodation.

5. a) Social disorganization its consequences.

OR

- b) Agencies of Social Control and their role in maintaining social order.

6. a) Polarization in contemporary India discuss.

OR

- b) Analyse any major social issue in India

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FACULTY OF ARTS
M.A (Urdu) II Semester Examination (CBCS)
Paper - I پہلا پرچہ
(Tareekh-E-Adab Urdu) (تاریخ ادب اردو) (1857 تا حال)

016/JULY25/II-A

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

(حصہ الف)

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. محمد حسین آزاد کی تصانیف 'آب حیات' اور 'نیرنگ خیال' کا تعارف کرائیے۔

2. پریم چند کی افسانہ نگاری کے موضوعات پر روشنی ڈالیے۔

3. مجتبیٰ حسین کی خاکہ نگاری پر اظہار خیال کیجیے۔

4. چکبست کی نظم نگاری پر تبصرہ کیجیے۔

5. ترقی پسند غزل کی امتیازی خصوصیات بیان کیجیے۔

(حصہ ب)

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔

6. (A) اردو نثر کے عہد زریں میں نثر نگاری کے فروغ پر روشنی ڈالیے۔

یا

(B) شبلی کی نثری تصانیف کا تعارف کرائیے۔

7. (A) نذیر احمد سے پریم چند تک اردو ناول کے ارتقا کا جائزہ لیجیے۔

یا

(B) اردو کی اہم خاتون افسانہ نگاروں کے کارناموں کا احاطہ کیجیے۔

8. (A) اردو میں خاکہ نگاری کے ارتقا کا جائزہ لیجیے۔

یا

(B) مولانا ابوالکلام آزاد کی صحافتی خدمات کی وضاحت کیجیے۔

9. (A) اردو کے اہم محققین کے کارناموں پر روشنی ڈالیے۔

یا

(B) کلیم الدین احمد اور آل احمد سرور کی تنقید نگاری کا محاکمہ کیجیے۔

10. (A) جدید تر غزل سے کیا مراد ہے؟ اس کے اہم شاعروں کی خدمات پر روشنی ڈالیے۔

یا

(B) اردو میں نظم کے سفر کا تفصیلی جائزہ لیجیے۔

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015/JULY25/II-A

FACULTY OF ARTS
M.A (TELUGU) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025

ప్రాచీన తెలుగు సాహిత్య చరిత్ర అధ్యయనం - 2

పేపర్ - 1

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

ఎ పురాణము లక్షణాలు

బి కొరవిగోపరాజు

సి నందితిమ్మన

డి కందుకూరి రుద్రకవి

ఇ తాళ్లపాక తిమ్మక్క

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ తిక్కన రచనలలోని నాటకీయ శిల్పాన్ని ఉదాహరణలతో తెల్పండి

లేదా

బి దేశి కవితా రీతిని పాల్కురికి సోమనాథుని రచనల ఆధారంగా విశ్లేషించండి

3 ఎ గౌరన నవనాథచరిత్ర విశిష్టతను సోదాహరణంగా వివరించండి

లేదా

బి నాచన సోమన ఉత్తర హరివంశాన్ని పరిచయం చేయండి

4 ఎ ప్రబంధ లక్షణాలను వసుచరిత్రకు అన్వయించి వివరించండి

లేదా

బి ప్రబంధకవులలో ధూర్జటి ప్రత్యేకతను వివరించండి

5 ఎ అచ్చతెలుగు కవితా లక్షణాలను యయాతి చరిత్ర ద్వారా వివరించండి

లేదా

బి కంకంటి పాపరాజు ఉత్తరరామాయణ విశిష్టతను వివరించండి

6 ఎ పదకవితా లక్షణాలను ఉదాహరణలతో తెల్పండి

లేదా

బి ముద్దుపళని కవితా రీతిని పరిచయం చేయండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) II SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
VICTORIAN AGE
PAPER- I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Industrial Revolution
- B Write a short note on the listener and his role in *My Last Duchess*?
- C What is the main conflict in *Oliver Twist*?
- D Sketch the character of Heathcliff?
- E What is the significance of the title *Unto the Last*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Discuss the impact of the conflict between Science and Religion on Victorian Literature?

OR

B Write an essay on Victorian Compromise?

3 A How does the poem “The Lotus-Eaters” express the Victorian Sensibility?

OR

B Write an essay on the contribution of Robert Browning as a Victorian poet?

4 A Comment on the use of imagery and symbolism in *Tess of the D’Urbervilles*?

OR

B *Oliver Twist* portrays the socio-economic location into which one is born inform and determine one’s fate? Elucidate.

5 A Write an essay on the use of irony in George Eliot’s *Mill on the floss*?

OR

B Write an essay on the main theme of Emily Bronte’s *Wuthering Heights*?

6 A Write the summary of the essay “ on Hero’s and Hero-worship” of Thomas Carlyle

OR

B John Ruskin’s *Unto this Last* emphasis on the role of social affections and the need for moral justice? Explain.

★★★★★

009/JULY25/II-A(O)

FACULTY OF ARTS
M.A. (ENGLISH) II SEMESTER EXAMINATIONS, JULY 2025
ENGLISH LANGUAGE TEACHING: HISTORY, APPROACHES AND METHODS
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Mark s)

1. Answer ALL the following questions

- a. Role of English in India.
- b. Language Acquisition Process.
- c. Community Language Learning.
- d. Sub-skills of speaking skills.
- e. Validity.

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2. (a) Discuss Macaulay's 'Minute-a critique' and Woods 'Despatch'

(OR)

- (b) Analyze Kothari Commission -Three Language Formula.

3. (a) Critically examine Chomsky's Cognitive Theory and Competence vs Performance.

(OR)

- (b) Explain Pavlov's Classical Conditioning, Thorndike's Connectionism.

4. (a) Discuss Reading Method, Audio-Lingual Method and Bilingual Method.

(OR)

- (b) Examine Communicative Language Teaching and Task Based Learning and Teaching.

5. (a) What are the main goals and objectives of Curriculum and Syllabus? Discuss.

(OR)

- (b) Explore the importance of Functional and Task-based Syllabus.

6. (a) Elaborate the characteristic features of an Effective Test with appropriate examples.

(OR)

- (b) How would you like to test vocabulary and grammar of your students? Write a detailed version of it.

★★★★★

FACULTY OF SCIENCE
M.Sc. (ENGG.PHYSICS & INSTR. AND PHYSICS) II SEM (CBCS) EXAMINATIONS, JULY 2025
QUANTUM MECHANICS - I
PAPER-II

Time: 3Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. **Answer ALL the following**

- a) Define Vector spaces
- b) Wave function representation of a ket.
- c) Pauli spin operators.
- d) Show that time reversal operator (τ) is antilinear.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions

2. a) Continuous spectrum of eigen values

b) Write down the postulates of quantum mechanics.

OR

c) Define Hermitian operator and list out some of its properties.

3. a) Write down the properties of Dirac delta function in connection orthonormal basis vectors.

b) Schrodinger's equation of motion.

OR

c) Heisenberg's equation of motion.

d) Ehrenfest theorem.

4. a) What are spherically symmetric potentials? Calculate the commutation relations $[L_x, L_y]$, $[L_z, P_x]$ and $[L^2, L_z]$

b) Eigen values and Eigen functions L_z

OR

b) Solve the Hydrogen atom Eigen values and Eigen functions.

5. a) Show that momentum is constant of motion in space displacement symmetry..

OR

b) Consider two systems with angular momentum J_1 and J_2 (i) When there is no interaction write down the basis set and eigen values (ii) When interaction present or non negligible then discuss the addition of angular moment and hence the Clebsch-Gordon, Wigner coefficients.

★★★★★

FACULTY OF SCIENCE
M. Sc. (STATISTICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PARAMETRIC INFERENCE
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1

Answer ALL the questions

- a Define Monotone likelihood ratio property and write an example distribution one which is satisfying and one not satisfying?
- b Outline in obtaining the test statistic for testing the population mean using maximum likelihood ratio method?
- c Write the importance and need of study of sequential probability ratio tests ?
- d Show that Bayes Decision rule with constant risk is minimax decision.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL questions**

- 2 a State and prove the Neyman-Pearsons lemma?

OR

- b Let $x_1, x_2, \dots, x_n$ be a random sample of size 'n' drawn from Poisson(θ) then obtain the uniformly most powerful test for testing $H_0: \theta = \theta_0$ vs $H_1: \theta > \theta_0$.

- 3 a Obtain a likelihood ratio test statistic to test the equality of two populations variance.

OR

- b Obtain an uniformly most powerful unbiased test for comparing two binomial populations.

- 4 a Let $x_1, x_2, \dots$ be a random sample drawn from $B(n, p)$ then construct the sequential probability ratio test procedure for testing $H_0: p = p_0$ against $H_1: p = p_1 (> p_0)$, also Obtain OC function.

OR

- b Let S_n denote the random sum $S_n = Z_1 + Z_2 + \dots + Z_n$ where $Z_1, Z_2, \dots, Z_n$ are iid random variables. Show that $E(S_n) = E(n).E(Z)$.

- 5 a Let X be a random variable follows Binomial distribution with parameter n and θ , where θ follows Beta-I kind distribution with parameters a and b then examine prior and posterior distributions to form conjugate family.

OR

- b Explain the Bayes measure and Risk functions? Show that Bayes unique decision rule is minimax?

★★★★★

FACULTY OF SCIENCE
M.Sc. (NUTRITION & DIETETICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
NUTRITIONAL BIOCHEMISTRY-II
PAPER – II

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Write the functions of lipids.
- b Write functions of vitamin A.
- c Write the deficiency symptoms of vitamin B12.
- d Explain factors affecting calcium absorption.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the biosynthesis of fatty acids even and odd number.

OR

- B Describe digestion and absorption of lipids and role of bile pigments.

- 3 A Discuss the sources, functions and deficiency symptoms of vitamin D.

OR

- B Describe the metabolic changes during starvation.

- 4 A Describe the disturbances in fluid balance and role of solutes.

OR

- B Discuss the sources, functions and deficiency symptoms of thiamine.

- 5 A Discuss the functions sources deficiency and excess of fluorine.

OR

- B Discuss the sources functions of manganese selenium and zinc.

★★★★★

FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) II SEMESTER (CBCS R-22NEW) EXAMINATIONS, JULY 2025
MATHEMATICAL ANALYSIS-II
PAPER – II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)1 **Answer ALL the questions.**

- a Show that $\tan^{-1} x = x - \frac{x^3}{3} + \frac{x^5}{5} - \frac{x^7}{7} + \dots, -1 \leq x \leq 1$
- b For the following function

$$f(x, y) = \begin{cases} x \sin\left(\frac{1}{y}\right) + y \sin\left(\frac{1}{x}\right), & \text{if } xy \neq 0 \\ 0, & \text{if } xy = 0 \end{cases}$$

Show that the limit exists at the origin but the repeated limits do not exist.

- c Find the maxima and minima of the function $f(x, y) = x^3 + y^3 - 3x - 12y + 20$.
- d Show that the improper integral $\int_a^b \frac{1}{(x-a)^n} dx$ converges if and only if $n < 1$.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A State and prove Abel's theorem (first form).

OR

- B State and prove Taylor's theorem.

- 3 A (i) State and prove a sufficient condition for differentiability.
 (ii) Using the definition of limit, show that $\lim_{(x,y) \rightarrow (1,2)} (x^2 + 3y) = 7$.

OR

- B (i) State and prove mean value theorem.
 (ii) Show that the function $f(x, y) = \sqrt{|xy|}$ is not differentiable at the origin.

- 4 A (i) State and prove Young's theorem.
 (ii) If $u = f(x + at) + g(x - at)$, then show that $4 \frac{\partial^2 u}{\partial x^2} = \frac{\partial^2 u}{\partial y^2}$.

OR

- B State and prove the Taylor's theorem for two variables.

- 5 A Show that the integral $\int_0^\infty x^{m-1} e^{-x} dx$ is convergent if and only if $m > 0$.

OR

- B State and prove Abel's test.

★★★★★

FACULTY OF SCIENCE
M.Sc. (DATA SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DATA VISUALIZATION TECHNIQUES
PAPER - II

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a List out seven stages of Data Visualization.
 - b Explain briefly about Pictogram and Pie Chart.
 - c Write a short note on Bullet Graph
 - d Explain briefly about Gestalt's Principles.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Write a detailed note on Mapping Data onto Aesthetics and Visualizing Amounts.

OR

- B Discuss in detail about Visualizing Time Series and Geospatial Data.

- 3 A Explain in detail about Two-Dimensional Data Visualization.

OR

- B Write a detailed note on Matplotlib and Seaborn Styles.

- 4 A Discuss in detail about D3 Setup.

OR

- B Write a detailed note on:
- i) Scaling the data
 - ii) Choropleth Map
 - iii) Path Diagram

- 5 A Write a detailed note on Visual Perception and Cognition.

OR

- B Discuss in detail about Dashboard Design.

★★★★★

502/JULY25/II-B

FACULTY OF SCIENCE
M.Sc. (BOTANY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PLANT ANATOMY AND PALYNOLOGY
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a CAM Syndrome
- b Transfer cells
- c Secondary growth
- d Stratification and ornamentation of pollen wall

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write about the important aspects of cytological zonation.

OR

B Describe the organization of root apex and quiescent centre.

3 A Write about the ontogeny of stomata. Discuss the ultrastructure of guard cells.

OR

B Write about trichome complex. Add a note on its classification.

4 A Discuss on the significance of dicot wood anatomy.

OR

B Write on the morphology and significance of xylem vessels, axil parenchyma and ray parenchyma.

5 A Write about the important aspects of Mellitopalynology.

OR

B Discuss the role of palynology in taxonomy.

★★★★★

504/JULY25/II-B

FACULTY OF SCIENCE
M.Sc. (COMP SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ADVANCED JAVA
PAPER - II

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Write a short note on Event Handling in Java.
- b List out types of JDBC Drivers.
- c Explain briefly about Web Servers.
- d Discuss briefly about MVC Architecture.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain working with Frame Windows, Control Fundamentals and Layout Managers in AWT in Java.

OR

B Discuss in detail about:

- i) Adapter Classes ii) Inner Classes iii) Event Classes.

- 3 A Discuss in detail about Database Connection Statement and Result Set Transaction.

OR

B Explain in detail about Data Base Meta data , Result Set Metadata and Aggregate Functions.

- 4 A Discuss detailed steps involved in Setting up a Servlet API, Servlet Structure and Testing a Servlet.

OR

B Explain in detail about HTTP package, Handling HTTP requests and Responses.

- 5 A What is The Problem with Servlet? Explain JSP Application design with MVC Architecture.

OR

B Discuss JSP's in Action, Error Pages and Using JSP's to Access Databases in detail.

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FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE AND TECH.) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
TECHNOLOGY OF MILK AND MILK PRODUCTS
PAPER - II

Time:3 Hrs]

[Max.Marks:80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write the composition of milk of various species.
- b What is the difference between skim milk and whole milk powder write their applications.
- c What are the defects in butter.
- d What are probiotic milk products.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Describe the quality evaluation and testing of milk.

OR

B Discuss about the special milks.

3 A Discuss the methods of manufacture of condensed milk.

OR

B Discuss the processing of cream.

4 A Describe the methods of manufacture of butter.

OR

B Describe the methods of manufacture of cheddar cheese.

5 A Discuss the methods of manufacture of softy ice cream.

OR

B Describe the method of manufacture of khoa and kalakand.

★★★★★

526/JULY25/II-B

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ENVIRONMENTAL BIOLOGY
PAPER - II

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Write the Structure and functions of Eco-systems.
- b Describe global environmental problems.
- c Explain biomagnifications.
- d Write about Bioremediation.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Elaborate on Population Ecology. Add notes on edges ecology.

OR

B Emphasize Major types of Ecosystems that you have studied.

3 A Concise Environmental Pollution its effects and control measures.

OR

B Explain conservation Biology Its Principles and major approaches.

4 A Describe molecular mechanism of toxicant action.

OR

B Elucidate on the molecule mechanism of toxicant action

5 A Describe evolution of aortic arches and portal system.

OR

B Explain evolution of Urino-genital system in vertebrates.

★★★★★

FACULTY OF SCIENCE
M.Sc. (MICROBIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY
PAPER - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Sanitary quality of water.
- b Bio degradable plastics.
- c Denitrifying bacteria.
- d Rhizosphere.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Write a brief account on water-borne pathogenic microorganisms and their transmission.

OR

- B Describe the general account on approaches of anaerobic sewage treatment.

- 3 A Give a brief sketch of methods of enumeration and activity of microbes in environment.

OR

- B Discuss the brief account on mechanism of microbial biodegradation of organic pollutants.

- 4 A Describe the biochemistry of decomposition and factors governing the decomposition.

OR

- B Explain the role of microbes involved and factors that influence denitrification process.

- 5 A Write the detailed account on microorganisms involved in asymbiotic and symbiotic nitrogen fixation.

OR

- B Give the brief account on microbe and plant interactions.

★★★★★

503/JULY25/II-B

FACULTY OF SCIENCE
M.Sc. (CHEMISTRY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ORGANIC CHEMISTRY - II
PAPER – II

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL Questions

- a. Draw and explain the conformations of vicinal diol with an example.
- b. Write a note on the preparation and applications of the Petasis reagent.
- c. Explain the Barton reaction with a mechanism.
- d. Write a note on [1,j] sigmatropic shifts.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 a. Explain Klyne-Prelog nomenclature with an example.
b. Draw the conformations of halohydrin and explain their stabilities.

(OR)

 - c. Explain the role of NGP in the reaction outcome with examples.
d. Draw and explain the conformations of n-butane.
-
- 3 a. Compare and distinct the Wittig and HWE reactions.
b. Write a note on conjugate addition reactions with examples.

(OR)

 - c. Write the preparation and applications of alkyl lithium reagents.
d. Write the preparation and applications of CH_3SiX .
-
- 4 a. Explain Norrish type I and II reactions with examples.
b. Write a note on cis-trans isomerization under photochemical conditions.

(OR)

 - c. Explain the Paterno-Buchi reaction with examples.
d. Discuss the various possible excitations in each molecule in the presence of light.
-
- 5 a. Write a note on 1,3-dipolar cycloaddition reactions.
b. Write the Woodward-Hoffman selection rules based on ATS theory for electrocyclic reactions.

(OR)

 - c. Draw and explain the molecular orbital phases, nodes and symmetry properties of 1,3-butadiene.
d. Write the Woodward-Hoffman selection rules based on FMO theory for cycloaddition reactions.

★★★★★

FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PROCESSING & PRESEVATION TECHNOLOGY OF FRUITS AND VEGETABLES
PAPER – II

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain the seasonal fruit crops.
- b Explain the principles of food preservation.
- c Write about cold plasma technology.
- d What are pickles explain.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the standards for selection of fruits and vegetables for post-harvest management.

OR

- B Describe the general composition of fruits and vegetables and their nutritive value.

- 3 A Describe the preparation of puree and jam in the form of flow sheet.

OR

- B Briefly explain the dehydration of fruits and vegetables using solar and tunnel drying.

- 4 A Describe classification of preservatives and their applications in foods.

OR

- B Discuss in detail High pressure processing.

- 5 A Write short notes on (i) global crops (ii) processing of concentrates and bars.

OR

- B Write short notes on (i) preservation by refrigeration (ii) preservation by nanotechnology.

★★★★★

FACULTY OF COMMERCE

M.COM (GENERAL & CA) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025

MANAGEMENT ACCOUNTING

PAPER - II

Time: 3 Hrs]

[Max Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL Questions

- Opportunity Cost
- What is contribution?
- Master Budget
- What is responsibility accounting?
- What do you mean by Cost Driver?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the questions

- What do you understand by “Management Accounting”? Explain the Scope of it.

OR

- What is meant by cost behaviour? How does it influence managerial decision making.

- Define Marginal costing? Explain the characteristics and assumptions of Marginal costing

OR

- The following figures of sales profits for two periods are available in respect of a concern:

	Sales Rs.	Profit Rs.
Period – A	1,00,000	15,000
Period – B	1,20,000	23,000

You are required to find out:

- P/V Ratio
- Fixed cost
- BEP
- Profit at an estimate sales of Rs. 1,25,000

- What is budgetary control? Describe the essential steps of a budgetary control system.

OR

- Form the data given below calculate (a) Material Cost Variance (b) Material Price Variance (c) Material Usage Variance

Products	Standard		Actual	
	Quantity (Units)	Price	Quantity (Units)	Price
A	1000	2.10	1100	2.25
B	1550	3.15	1425	3.55
C	2150	3.40	1975	3.70

- What is meant by responsibility centres? How are these centres determined and for what purpose.

OR

- A company has 10 cars in operation. The budget for the transport department based on 25,000 km run for a month is Rs. 87,500 out of which a sum of Rs. 25,000 is fixed.

During the last month, the total kilometres run by all the 10 cars were 22,400 and the costs incurred were Rs. 83,150. The cost of hiring a car would have been Rs. 4 per Km.

Evaluate the performance of the transport department on the basis of (a) cost centre, (b) profit centre

- What is activity based costing? Differentiate between ABC System Vs. Traditional costing system.

OR

- On the basis of the following information, calculate the cost per unit of the two products separately under: a) Traditional costing system based on volume b) ABC System

	Machine hours per unit	Direct labour hours per unit	Annual output (Units)	No. of Purchase orders	No. of set-ups
Product –A	3	5	2500	120	333
Product - B	3	5	5500	160	74

The cost of the activities is as follows:

Valued related	Rs. 75,000
Purchase related	Rs. 1,50,000
Set-up related	Rs. 2,50,000
Total	Rs. 4,75,000

★★★★★

425/JULY25/II-B

FACULTY OF COMMERCE
M.COM (FA) II SEMESTER (CBCS) EXAMINATIONS JULY 2025
ADVANCED COST AND MANAGEMENT ACCOUNTING
PAPER - II

Time: 3 Hrs]

[Max Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer all Questions

- a. Limitations of Management Accounting.
- b. What do you Mean by BEP?
- c. What are the main steps involved in setting standard costs?
- d. What are the key characteristics of ABC?
- e. What is Responsibility Accounting?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the Questions

2. a) Define Strategic Cost Management. Discuss its objectives, and significance in improving organizational competitiveness.

OR

- b) Who is a Management Accountant? Describe the roles and functions of a management accountant.

3. a) Explain the concept of Marginal Costing. How is it applied in Break-Even Analysis and Profit Planning?

OR

- b) The following figures are available from the records of XYZ ltd as at March 31st

	2022	2024
Sales (Rs)	2,40,000	2,80,000
Profit (Rs)	16,000	26,000

Calculate

- a) The P/V ratio and total fixed expenses
- b) The break-even level of sales
- c) The sales required to earn a profit of Rs. 5 lakhs, and
- d) The profit or loss that would arise if the sales were Rs. 50,000.

(Contd.....)

//2//

4. a) What is Standard Costing? Outline the steps involved in establishing a standard costing system.

OR

b) From the following information compute material (a) price (b) usage and (c) mix variances from the data given below:

	<u>Standard</u>			<u>Actual</u>		
	Quantity	Price	Total	Quantity	Price	Total
	(Kilos)	(Rs)	(Rs)	(Kilos)	(Rs)	(Rs)
Material A	10	3	30	15	4	60
Material B	15	4	60	25	3	75
Material C	25	2	50	35	2	70
Total	50		140	75		205

5. a) Define Activity-Based Costing (ABC). Differentiate between Traditional Costing Vs Activity-Based Costing.

OR

b) On the basis of the following information, calculate the cost per unit of the two products separately under: a) Traditional costing system based on volume b) ABC System

	Machine hours per unit	Direct labour hours per unit	Annual output (Units)	No. of Purchase orders	No. of set-ups
Product –A	6	10	5000	240	66
Product - B	6	10	11000	320	148

The cost of the activities is as follows:

Valued related	Rs. 1,50,000
Purchase related	Rs. 3,00,000
Set-up related	Rs. 5,00,000
Total	Rs. 9,50,000

6. a) What do you mean by Transfer Pricing? Discuss the various methods of Transfer Pricing used in Responsibility Accounting.

OR

b) A company has 10 cars in operation. The budget for the transport department based on 25,000 km run for a month is Rs. 87,500 out of which a sum of Rs. 25,000 is fixed. During the last month, the total kilometres run by all the 10 cars were 22,400 and the costs incurred were Rs. 83,150. The cost of hiring a car would have been Rs. 4 per Km.

Evaluate the performance of the transport department on the basis of (a) cost centre, (b) profit centre.

★★★★★

313/JULY25/II-B

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A. (ECONOMICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MACRO ECONOMICS ANALYSIS - II
PAPER – II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Risk aversion of liquidity preference
- b Fixed exchange rates
- c Cost push inflation
- d Stage of recession
- e Adaptive expectations

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain the Baumol's inventory theory of demand for money.

OR

- B Critically examine the Friedman's restatement of quantity theory of money.

- 3 A Explain the impact with extension of IS-LM curves in government sector.

OR

- B Examine the role of trade and capital flows an economy with flexible exchange rates.

- 4 A Briefly explain about natural rate of unemployment hypothesis.

OR

- B Explain the Tobin's modified Philips curve and its impact on rate of interest.

- 5 A Explain the Hick's theory of trade cycles and its limitations.

OR

- B Describe the interaction between multiplier and accelerator.

- 6 A Explain the various hypothesis and policy implication of new classical approach.

OR

- B Explain the rational exceptions theory and its importance.

★★★★★

FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL STRATIFICATION AND SOCIAL MOBILITY
PAPER –II

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Write Short notes on the following

- a) Social Differentiation
- b) Social Stratification
- c) Dominant Caste
- d) Gender and Social Mobility
- e) Islamization of Elites

SECTION – B (5 x 12 = 60 Marks)

Answer ALL questions

- 2. A) Write an essay on social inequality in historical and contemporary society.
OR
B) Enumerate the principle types of stratification systems?
- 3. A) Explain the contributions of Max Weber to the understanding of Social Stratification?
OR
B) Explain Parson's theory of stratification
- 4. A) Define Class and discuss the class structure in developing countries.
OR
B) Is Caste system undergoing change in Rural India? Discuss
- 5. A) Discuss the types of Social Mobility in detail.
OR
B) Discuss the factors contributing to Social Mobility in India.
- 6. A) Explain the concept of Westernization?
OR
B) Discuss the Social Mobility trends in rural and Urban India.

★★★★★

FACULTY OF SOCIAL SCIENCES
M. S. W II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL GROUP WORK
PAPER - II

Time: 3 Hrs]

[Max Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Write short notes on the following:

- a. Historical development of Social Group Work
- b. Skills of Group Work
- c. Educational groups
- d. Terminal phase of Social Group Work
- e. Group Work in correctional settings

SECTION - A (5 X 12 = 60 Marks)

Answer ALL Questions

2. a) Explain Theories of Groups.

OR

- b) Explain the tasks and maintenance functions of group members.

3. a) Explain essential skills of Social group Work.

OR

- b) Write Values of Social Group Work.

4. a) Explain problem solving and decision-making groups.

OR

- b) Differentiate recreational and developmental groups.

5. a) Explain programme planning and execution of Social Group Work.

OR

- b) Explain different phases of social group work.

6. a) Explain application of social group work in Rural and urban settings.

OR

- b) Social Group work intervention in Industrial settings.

★★★★★

FACULTY OF ARTS **016/JULY25/II-B**
M.A (Urdu) II Semester Examination (CBCS)
دوسرا پرچہ - II
ادبی تنقید (Adabi Tanqeed)

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

(حصہ الف)

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. عملی تنقید سے کیا مراد ہے؟
2. علم بدیع کے موضوع کی وضاحت کیجیے۔
3. شبلی کے تصور محاکات پر روشنی ڈالیے۔
4. قاری اساس تنقید سے کیا مراد ہے؟
5. میتھیو آرنلڈ کے نظریہ تخیل کی وضاحت کیجیے۔

(حصہ ب)

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔

6. (A) اردو تنقید کی تاریخ میں حالی کے مقدمہ شعر و شاعری کی اہمیت اجاگر کیجیے۔

یا

(B) تذکروں کی تنقیدی اہمیت بیان کیجیے۔

7. (A) تاثیراتی تنقید سے کیا مراد ہے۔ اس طریقہ تنقید کی خوبیوں اور خامیوں پر روشنی ڈالیے۔

یا

(B) واضح کیجیے کہ سائنٹفک تنقید کو جامع تنقید کیوں کہا جاتا ہے۔

8. (A) نئی تنقید میں اہلیٹ کے تنقیدی نظریات کی اہمیت واضح کیجیے۔

یا

(B) شاعری کے بارے میں افلاطون کے خیالات کا تنقیدی محاکمہ کیجیے۔

9. (A) سنسکرت شعریات میں بھرت کے نظریہ رس کی اہمیت واضح کیجیے۔

یا

(B) علم بیان کی مختلف شاخوں کا تعارف کرائیے۔

10. (A) ادب کے معیار کو بلند کرنے میں تنقید کی ضرورت اور اہمیت پر روشنی ڈالیے۔

یا

(B) تنقید کی تعریف میں مختلف علما کے خیالات کا جائزہ لیجیے۔

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015/JULY25/II-B

FACULTY OF ARTS
M.A (TELUGU) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025

సంప్రదాయ కవిత్వం - 2

పేపర్ - II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 Answer ALL the questions

- a శృంగార నైషధం పరిచయం
- b స్వరోచి పాత్ర చిత్రణ
- c తెనాలి రామకృష్ణ కవి పరిచయం
- d మొల్ల కవితా రీతి
- e యమకాలంకార చక్రవర్తి

SECTION - B (5 X 12=60Marks)

Answer ALL the questions

2 A హంస చేసిన దమయంతి వర్ణనను విశ్లేషించండి

లేదా

B మీ పాఠ్యభాగం ఆధారంగా శ్రీనాథుని అనువాద విధానాన్ని వివరించండి

3 A మనోరమ కథ పరమార్థాన్ని వివరించండి

లేదా

B మీ పాఠ్యభాగం ఆధారంగా పెద్దన కవిత్వ రచనా రీతిని వివరించండి

4 A వికట కవిత్వ లక్షణాన్ని మీ పాఠ్యం ఆధారంగా వివరించండి

లేదా

B నిగమశర్మ పాత్ర చిత్రణను అది సమాజానికి ఇస్తున్న సందేశాన్ని వివరించండి

5 A మొల్ల పద్య రచనా శైలిని మీ పాఠ్యభాగం ఆధారంగా వివరించండి

లేదా

B మొల్ల అరణ్య కాండ కథా సారాన్ని వివరించండి

6 A యమకాలంకార చక్రవర్తి చేమకూర వేంకటకవి మీ పాఠ్యభాగం ఆధారంగా నిరూపించండి

లేదా

B మీ పాఠ్యభాగం ఆధారంగా పెళ్లి వేడుకలను చేమకూర వేంకటకవి వర్ణించిన రీతిని వివరించండి

★★★★★

009/JULY25/II-B

FACULTY OF ARTS
M.A. (ENGLISH) II SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
MODERN AGE
PAPER- II

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Utopia
- B What does Datta, Dayadhvam and Damyata in *The Waste Land*?
- C Write a short note on old Major's speech to the animals in Chapter 1 of *Animal Farm*?
- D Sketch the character role of Gertrude Morel in *Sons and Lovers*? ?
- E How is Joan's heroism depicted in *Saint Joan*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Discuss the origin and evolution of Stream of Consciousness with examples?

OR

- B What is Symbolism? What is the use of symbolism in Literature?

- 3 A Comment on the use of allusions in T. S. Eliot's *The Waste Land*?

OR

- B Discuss the mythical significance of the sea in *Sailing to Byzantium*?

- 4 A *Lord of the Flies* is the conflict between two competing impulses was the instinct to live by rules and the other is to gratify one's immediate desires and enforce one's will? Examine.

OR

- B Discuss the use of symbolism in George Orwell's *Animal Farm*?

- 5 A Write an essay on human relations in D.H. Lawrence *Sons and Lovers*?

OR

- B Comment on James Joyce's style and narrative technique in *A Portrait of the Artist as a Young Man*?

- 6 A Discuss G.B. Shaw's *Saint Joan* as a historical play?

OR

- B Write an essay on *Waiting for Godot* as Theatre of Absurd?

★★★★★

526/JULY25/II-B

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ENVIRONMENTAL BIOLOGY
PAPER - II

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write the Structure and functions of Eco-systems.
- b Describe global environmental problems.
- c Explain biomagnifications.
- d Write about Bioremediation.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Elaborate on Population Ecology. Add notes on edges ecology.

OR

- B Emphasize Major types of Ecosystems that you have studied.

- 3 A Concise Environmental Pollution its effects and control measures.

OR

- B Explain conservation Biology Its Principles and major approaches.

- 4 A Describe molecular mechanism of toxicant action.

OR

- B Emphasize on acute and chronic toxicity. Add notes on LC50 and LD50 assessment

- 5 A Elucidate vermin technology use in waste management

OR

- B Explain aerobic and anaerobic treatment technologies

★★★★★

FACULTY OF SCIENCE
M.Sc. (ENGG. PHYSICS and INSTR. & PHYSICS) II SEM (CBCS) EXAMS JULY 2025
C - PROGRAMMING AND NUMERICAL METHODS
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)**1) Answer ALL the following**

- a) Write a short note on I/O functions of 'c'?
- b) Define a pointer and write its syntax and uses?
- c) Write algorithm for Bisection Method?
- d) Describe Gauss Seidal method to solve simultaneous equations

SECTION – B (4 X 15 = 60 Marks)
Answer ALL Questions

2. (a) Explain in detail about different types operators available in 'c'? [10 M]
 (b) Write a 'c' program to print first n natural numbers.[5 M]
 (OR)
 (c) Explain all the control statements along with their syntaxes? [10 M]
 (d) Write a 'c' program to check whether given alphabet is vowel or not [5 M]
3. (a) Describe about defining, accessing of functions in 'c' and function prototypes with syntax [10 M]
 (b) Write a 'c' program to factorial of a number using recursion? [5 M]
 (OR)
 (c) Define an Array. Explain types of Arrays with syntaxes [8 M]
 (d) Write 'c' program to multiply any two matrices? [7 M]
4. (a) Find the positive root between 0 and 1 of the equation $x = e^{-x}$ to a tolerance of 0.05% using Newton – Raphson Method?
 (OR)
 (b) Compute the trapezoidal and Simpsons $\frac{1}{3}$ rule & $\frac{3}{8}$ rule approximation for $I = \int_0^2 \frac{1}{1+x^2} dx$, using a regular partition with n = 8. Compare the estimate with the exact value.
5. (a) Use the Gauss – Jacobi Method to solve the following system of simultaneous equations
 $2x + y + z = 4, x + 2y + z = 4, x + y + 2z = 4.$
 (OR)
 (b) Using Euler's Method, compute $y(0.12)$ for the initial value problem $\frac{dy}{dx} = x^3 + y$; $y(0) = 1$, taking $h = 0.02$ [8 M]
 (c) Solve $\frac{dy}{dx} = x + y$; $y(0) = 1$ at $x = 0.1$ (take $h = 0.1$) using Runge-Kutta IV order formula[7 M]

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506/JULY25/II-C

FACULTY OF SCIENCE
M.Sc. (STATISTICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
LINEAR MODELS AND DESIGN OF EXPERIMENTS
PAPER-III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions.**

- a Explain the estimability of a linear parametric function?
- b Define and write the formulae for computing partial and multiple correlation coefficients?
- c Explain Duncan's multiple range test?
- d Explain total, partial, balanced confounding with suitable examples?.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the Aitkins generalised least squares method?

OR

B State the assumptions involved in Gauss-Markov general linear model? Discuss its importance in detail?

3 A Explain the various plot techniques used for residual analysis?

OR

B Derive the partial correlation coefficient?

4 A Write the complete analysis of covariance for one way classification data?

OR

B Write complete the analysis of 2^4 factorial experimental design with 2 replicates?

5 A Write the analysis of 3^2 factorial design with two replicates such that AB^2 and AB are confounded in the two replicates respectively.

OR

B Explain the construction and analysis of one-quarter fraction of 2^6 factorial design.

★★★★★

FACULTY OF SCIENCE
M.Sc. (NUTRITION & DIETETICS) II SEMESTER (CBCS) EXAMINATIONS JULY 2025
RESEARCH METHODOLOGY
PAPER – III

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain the criteria of good research.
- b What are the characteristics of good sample.
- c Explain graphic representation of data.
- d Explain t tests.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about the experimental studies.

OR

- B Describe the different parts of thesis along with steps in writing the thesis.

- 3 A Discuss in detail the non-random sampling methods.

OR

- B Discuss in detail the sampling and non-sampling errors.

- 4 A Discuss the methods of collecting primary data.

OR

- B Discuss in detail the tabulation of data along with general rules and types of tables

- 5 A Discuss the measures of dispersion and their application in scientific data.

OR

- B Describe the analysis of variance and its applications.

★★★★★

FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) II SEMESTER (CBCS R-22) EXAMINATIONS, JULY 2025
TOPOLOGY
PAPER – III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)1 **Answer ALL the questions.**

- a Let X be a non-empty set, and consider the class of subsets of X consisting of the empty set and all sets whose complements are countable. Is this a topology on X ? Justify your answer.
- b Prove that any continuous image of a compact space is compact.
- c Show that any finite T_1 -space is discrete.
- d Prove that the product of any non-empty class of totally disconnected spaces is totally disconnected.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A (i)State and prove Lindelof's theorem.
(ii)Show that a subset of a topological space is dense $\Leftrightarrow$ it intersects every non-empty open set.

OR

- B (i)Let X be a second countable space. Then, prove that any open base for X has a countable subclass which is also an open base.
(ii)Let X be any non-empty set, and let S be an arbitrary class of subsets of X . Then, prove that S can serve as an open sub base for a topology on X , in the sense that the class of all unions of finite intersections of sets in S is a topology.

- 3 A (i)State and prove Tychonoff's theorem.
(ii)Show that a compact metric space is separable.

OR

- B State and prove Ascoli's theorem.

- 4 A State and prove the Tietze Extension theorem.

OR

- B State and prove the Urysohn Imbedding theorem.

- 5 A If X is an arbitrary topological space, then we have the following: (1) each point in X is contained in exactly one component of X ; (2) each connected subspace of X is contained in a component of X ; (3) a connected subspace of X which is both open and closed is a component of X ; and (4) each component of X is closed.

OR

- B (i) Show that the space $\mathbb{R}^n$ is connected.
(ii)Show that the image of a locally connected space under a mapping which is both continuous and open is locally connected.

★★★★★

FACULTY OF SCIENCE
M.Sc. (DATA SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
CLOUD COMPUTING
PAPER - III

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Write a brief note on Resource Virtualization.
- b Explain briefly about File System.
- c List out Popular Cloud Services.
- d Write a short note on SOA.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain in detail about Resource Pooling, Sharing and Provisioning.

OR

- B Write a detailed note on Cloud Computing Services.

- 3 A Explain in detail about Capacity Planning and Load Balancing in Cloud.

OR

- B Write a detailed note on Multi-Tenant Software.

- 4 A Discuss in detail about Security, Privacy and Compliance Issues in Cloud.

OR

- B Write a detailed note on Portability and Interoperability Issues.

- 5 A Discuss in detail about Enterprise Custom Applications.

OR

- B Write a detailed note on Enterprise Cloud Computing Ecosystem.

★★★★★

502/JULY25/II-C

FACULTY OF SCIENCE
M.Sc. (BOTANY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PLANT BIOCHEMISTRY
PAPER - III

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Gibbs Free Energy
- b Simple lipids
- c GS
- d Membrane lipids

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Explain the different energy currencies in detail

OR

B Write on the enzyme kinetics and Michaelis – Menton Equation.

3 A Discuss on the structure and functions of monosaccharides

OR

B Explain sterols and terpenoids with suitable examples

4 A Write on the properties and classification of proteins

OR

B Describe the different types of DNA studied by you

5 A Discuss on the important components of the cell wall

OR

B Write about the classification and functions of the secondary metabolites

★★★★★

FACULTY OF SCIENCE
M.Sc. (COMP SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PROGRAMMING IN PYTHON
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Write a brief note on Boolean Variables in Python.
- b Explain Functions in Python with examples.
- c Explain briefly about Recursion.
- d Write a short note on Polymorphism.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about Nested Decision Structures in Python with examples.

OR

- B Explain how to use while loop and for loop in python with examples.

- 3 A Discuss in detail about Generating Random Functions.

OR

- B What is a File? Explain Using Loops to process Files with an example.

- 4 A What are List Methods and Useful Built-in Functions? Also explain about Two-Dimensional Lists and Tuples.

OR

- B Discuss in detail about Dictionaries and Sets in Python with examples.

- 5 A Define Classes. Explain in detail about Working with Instances and Techniques for Designing Classes with examples.

OR

- B Explain in detail about GUI in Python. Design a webpage to demonstrate the usage of tkinter module in python.

★★★★★

FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE & TECH.) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FRUITS AND VEGETABLE PROCESSING AND PRESERVATION TECHNIQUES
PAPER – III

Time: 3Hrs]

[Max. Marks:80

SECTION-A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Write the standards for selection of vegetables.
- b What is the difference between jam and jelly write their applications.
- c Explain blanching.
- d Explain refrigeration and its applications.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A** Discuss the post-harvest changes occurring in vegetables along with composition and nutritive value.

OR

- B** Discuss the quality requirements of raw materials used for processing.

- 3 A** Discuss the processing of fruits for candies and toffees.

OR

- B** Give a brief account on solar drying and fluidized bed drying of fruits and vegetables.

- 4 A** Discuss the preservation of food by fermentation.

OR

- B** Discuss in detail extrusion cooking and its applications.

- 5 A** Discuss in detail high pressure processing and its applications.

OR

- B** Describe the applications of nanotechnology.

★★★★★

526/JULY25/II-C

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
BIOCHEMISTRY
PAPER – III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write about fatty acids
- b Describe enzyme action
- c Explain electron transport
- d Write about ketone bodies

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Elaborate on amino acids classification and general characters.

OR

- B Emphasize biosynthesis and degradation of purines and pyrimidines.

- 3 A Concise classification of enzymes.

OR

- B Explain enzyme inhibition in detail.

- 4 A Describe principles of thermodynamics, free energy , enthalpy and entropy.

OR

- B Elucidate Redox potential and electron transport.

- 5 A Describe carbohydrate metabolism and gluconeogenesis.

OR

- B Explain lipid metabolism and biosynthesis.

★★★★★

FACULTY OF SCIENCE
M. Sc. (MICROBIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
IMMUNOLOGY
PAPER - III

Time:3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Haptens
- b Human leucocyte antigen (HLA)
- c Fluorescence activated cell sorter
- d Schedules of common vaccination

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write a brief account on immunoglobulin genes and generation of antibody diversity.

OR

B Describe the general account on generation of T cell receptor and diversity of T cell by genomic rearrangement

3 A Give a brief sketch of cell-mediated and humoral immune responses.

OR

B Discuss the brief account on congenital and acquired immunodeficiencies.

4 A Describe the detailed account on classical and alternate complement pathways.

OR

B Explain the concept of development of immuno-diagnostic kits with their applications.

5 A What is immunosuppression? Write the detailed account on mechanism of action of immunosuppression.

OR

B Give the brief account on immune therapy and immuno-diagnosis of cancer.

★★★★★

503/JULY25/II-C

FACULTY OF SCIENCE
M. Sc (CHEMISTRY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PHYSICAL CHEMISTRY
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a What is Chemical potential. Explain its variation of its with Temperature and pressure?
- b Explain Frank Condon principle in electronic transitions?
- c Give an account on Polar Plots and Boundary diagrams?
- d Discuss the band theory of solids. Explain?

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A What is Activity and Activity Coefficients of non-ideal systems? Determine the Activity Coefficients from the Vapour Pressure measurements?

OR

- B a) How do you determine the partial molar property from the method of intercepts?
b) Derive Gibbs – Duhem equation and give its significance?

- 3 A Define Quantum yield? Derive the Quantum yield expression for both Fluorescence and Phosphorescence?

OR

- B Derive Stern – Volmer equation? Give its Significance?

- 4 A What are the Approximation methods and explain the Variation method with Proof?

OR

- B What is Molecular Orbital Theory? What are bonding and non-bonding orbitals? Illustrate your answer for H_2^+ ion?

- 5 A a) Describe the Phase diagram of Y-Ba-Cu-O System?
b) Explain Meissner effect?

OR

- B Explain the Sol-Gel method with example in the preparation of nanomaterial? Write the applications of nanoparticles?

★★★★★

FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FOOD SAFETY, QUALITY CONTROL AND MANAGEMENT SYSTEMS
PAPER – III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain good hygienic practices.
- b Write the advantages of utilising International Standards.
- c Explain the terms GMO and IMO.
- d Write about different types of Food safety hazards.

SECTION – B (4 X 15 =60 Marks)

Answer ALL questions

- 2 A Discuss the common adulterants found in foods.

OR

- B Describe risk assessment, risk management and risk communication.

- 3 A Discuss ISO 22000:2018 Food safety management system.

OR

- B Give a brief account on Export Inspection Council and Export Inspection Agency.

- 4 A Describe the natural toxins in food and their effects in humans.

OR

- B Give a brief account on toxic man-made organic food contaminants and pesticides which are important in food toxicology.

- 5 A Give a brief account on (i) GAP (ii) biological control by transgenic approaches.

OR

- B Give a brief account on (i) International rules and regulations in export of GMOs. (ii) European Committee for Standardization.

★★★★★

408/410/425/JULY25/II-C

FACULTY OF COMMERCE
M.COM. (GEN, CA & FA) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MARKETING MANAGEMENT
PAPER-III

Time: 3 Hrs]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the questions

- a) Marketing Mix.
- b) STP Marketing.
- c) Pricing Decision.
- d) Channels of distribution.
- e) Promotion Mix.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2. a) What is Marketing? Discuss briefly about evolution of marketing concepts.
(OR)
b) Critically examine the recent trends in marketing.
- 3. a) Explain the bases and process of market segmentation.
(OR)
b) What is marketing research? Explain steps and process in marketing research.
- 4. a) Explain the stages in product life cycle and its implications.
(OR)
b) Explain the concepts of cost based demand based and competition based pricing strategies.
- 5. a) What is Retailing and Wholesaling? Explain the functions of retailer and wholesaler.
(OR)
b) What is direct marketing? Explain major channels of direct marketing.
- 6. a) What is advertising? Explain nature and importance of advertising.
(OR)
b) Explain the objectives and techniques of sales promotion.

★★★★★

411/JULY25/II-B

FACULTY OF COMMERCE
M.COM (INSUR & BANKING) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PRINCIPLES AND PRACTICES OF BANKING
PAPER - III

Time: 3 Hrs]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a. What is Unit Banking?
- b. What is Asset Liability Management (ALM)?
- c. What do you mean by private sector lending?
- d. What is the Cash Reserve Ratio (CRR)?
- e. Differentiate between online banking and offshore banking.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

- 2. a. Discuss the origin and historical development of banking in India.
OR
b. Explain the major reforms introduced in the Indian banking sector since 1991.
- 3. a. What is Commercial Bank? Explain the various types of accounts that can be opened in a commercial bank.
OR
b. What is Credit Management? Explain the credit appraisal techniques used by commercial banks.
- 4. a. What is a loan policy? Discuss the major components and objectives of an effective bank loan policy.
OR
b. What are Non-Performing Assets (NPAs)? Explain the classification of NPAs and discuss various strategies used by banks for NPA management and debt restructuring.
- 5. a. Discuss the objectives and major functions of the Reserve Bank of India.
OR
b. What is monetary policy? Discuss the tools of monetary policy used by the RBI.
- 6. a. Discuss the key innovations in banking technology. How have these innovations transformed traditional banking services into digital banking?
OR
b. Explain the role and impact of ATMs, debit cards, and credit cards in the development of customer-centric banking services.

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FACULTY OF ARTS AND SOCIAL SCIENCES
M.A (ECONOMICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
QUANTITATIVE METHODS – II
PAPER – III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- Simple operation on matrices
 - Shadow price
 - Level of significance
 - Discrete random variable
 - OLS method

SECTION-B (5 X 12 = 60 Marks)**Answer ALL questions**

- 2 A Briefly discuss about input-output analysis

OR

- B Solve the following equation by the method of determinants

$$x - 3y + z = 4$$

$$3x - y + 2z = 3$$

$$2x + 2y + z = 2$$

- 3 A Discuss the importance of duality in linear programming

OR

- B Solve the following linear programming problem

Minimise $Z = 200x + 500y$ subject to the constraints:

$$x + 2y \geq 10$$

$$3x + 4y \leq 24$$

$$x \geq 0, y \geq 0$$

- 4 A Define null hypothesis, critical region and two sides test used in testing of hypothesis

OR

- B Define hypothesis and point out their role. Explain different types of hypothesis

- 5 A What are the uses of Bernoulli's theorem in theory of probability?

OR

- B Two boxes contain respectively 6 brown, 8 blue, 1 black balls and 3 brown, 7 blue and 5 black balls. One ball is drawn from each box. What is the probability that both the balls drawn are of the same colour?

- 6 A Fit a trend line to following data by the method of semi-averages

Year	1991	1992	1993	1994	1995	1996	1997
Sales of Firm A (thousand Units)	102	105	114	110	108	116	112

OR

- B Explain the principle of least square method and its application

317/JULY25/II-C

FACULTY OF SOCIAL SCIENCES
M.A (SOCIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
QUALITATIVE RESEARCH AND PARTICIPATORY LEARNING AND ACTION TECHNIQUES
PAPER –III

Time: 3Hrs]

[Max.Marks:80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL Questions

- a. Significance of Ethnography.
- b. Participatory Rural Appraiser
- c. Importance of Social Map
- d. Role of Facilitator in Field Work.
- e. Data processing in Research.

SECTION – B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2. A) Explain the main differences between participant observation and in-depth interviews?
OR
B) What are the strengths and limitations of case study methods in qualitative research?
- 3. A) Examine the important benefits of Participatory Rural Appraisal in community Development.
OR
B) Discuss the major challenges in achieving effective People's participation in Development projects.
- 4. A) Explain various Time and space related techniques used in Participatory Learning Action with appropriate examples.
OR
B) Write about the process in changing from PRA to PLA, discuss the implications in Community Development
- 5. A) Discuss the Key components of PLA Tool Kit and elaborate using this with field notes.
OR
B) Describe the challenges faced by NGOs and research institutions in conducting PLA? How does a coping mechanism help in overcoming challenges?
- 6. A) What are the issues involved in analyzing the qualitative Research Methods?
OR
B) Examine the steps involved in presenting a research report and its importance in influencing policy makers.

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FACULTY OF ARTS AND SOCIAL SCIENCES
M.S.W II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DYNAMICS OF HUMAN BEHAVIOR
PAPER – IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION-A (5 X 4 = 20 Marks)

1 Answer ALL the questions

- a Scope of Psychology
- b Need hierarchy
- c Anxiety
- d Reliability and Validity
- e Leadership

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

2 A How the genetic and environmental factor influencing human development

OR

B Explain briefly the stages of human development

3 A Discuss any two theories of motivation

OR

B Explain the principles of learning

4 A Explain the process of adjustment

OR

B Explain the defense mechanisms

5 A Explain the different types of scaling techniques

OR

B Explain the different types of tests?

6 A Write the types and traits of personality

OR

B Define personality and write any two theories of personality

★★★★★

FACULTY OF ARTS
M.A (Urdu) II Semester Examination (CBCS)
تیسرا پرچہ Paper - III
قصیدہ و مرثیہ (Qaseeda Va Marsia)

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

(حصہ الف)

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔
- (5 x 4 = 20)
1. قصیدے کی تعریف کیجیے اور اس کی ہیئت کی وضاحت کیجیے۔
 2. محسن کا کوروی کی قصیدہ گوئی پر مختصر نوٹ تحریر کیجیے۔
 3. مرثیے میں رزمیہ اور المیہ عناصر پر اظہار خیال کیجیے۔
 4. جوش کی مرثیہ نگاری پر ایک اختصار یہ لکھیے۔
 5. نصاب میں شامل غالب کے قصیدے کی تشبیہ / تمہید کی ندرت پر روشنی ڈالیے۔

(حصہ ب)

- نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔
- (5 x 12 = 60)
6. (A) قصیدے کی اہمیت اور اس کے عروج و زوال پر روشنی ڈالیے۔
یا
(B) قصیدے کے اجزائے ترکیبی اور لوازمات کی وضاحت کیجیے۔
 7. (A) دکن میں قصیدہ گوئی کی روایت کے آغاز و ارتقا کا جائزہ لیجیے۔
یا
(B) شمالی ہند کے اہم قصیدہ گو شعرا کی خدمات پر اپنے خیالات کا اظہار کیجیے۔
 8. (A) مرثیے کی تعریف کیجیے اور اس کے اجزائے ترکیبی کی وضاحت کیجیے۔
یا
(B) مرثیے کی اقسام اور مرثیے کی ادبی اہمیت پر روشنی ڈالیے۔
 9. (A) دکن کے اہم مرثیہ گو شعرا کے بارے میں اپنی معلومات قلم بند کیجیے۔
یا
(B) شمالی ہند کے اہم مرثیہ گو شعرا کا تعارف کرائیے۔
 10. (A) انیس کی مرثیہ نگاری کے ادبی و فنی محاسن کا جائزہ لیجیے۔
یا
(B) اردو قصیدے کی تاریخ میں سودا کے مقام کا تعین کیجیے۔

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015/JULY25/II-C

FACULTY OF ARTS
M.A (TELUGU) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
వ్యాకరణం భాషాచరిత్ర -2

పేపర్ - III

Time: 3Hrs]

[Max. Marks: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a ఆచ్చిక సమాసం నిర్వచనం
- b వేటకత్తియ రూప సాధన
- c ఓరిమి రూప సాధన
- d ఉత్తర ద్రావిడ భాషలు
- e గిడుగు రామమూర్తి

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

2 A షడ్విధ కారకాలను సోదాహరణంగా వివరించండి

లేదా

B సమాసాన్ని నిర్వచించి సాంస్కృతిక, ఆచ్చిక, మిశ్ర సమాసాలను సోదాహరణంగా వివరించండి

3 A తద్దిత పరిచ్ఛేదం ఆధారంగా స్వార్థ, మానార్థక ప్రత్యయాలను వివరించండి

లేదా

B క్రియా పరిచ్ఛేదం ఆధారంగా సమాపక క్రియా రూపాలను వివరించండి

4 A బడి ఏల్వాదులకగు, పు వర్ణకం మాయాదులకగు సూత్రాలను సోదాహరణంగా వివరించండి

లేదా

B ప్రకీర్ణక పరిచ్ఛేదం సూరి పేర్కొన్న విశేషాలను వివరించండి

5 A భాషోత్పత్తి వాదాలను వివరించండి

లేదా

B ద్రావిడ భాషలలో తెలుగు స్థానాన్ని వివరించండి

6 A తెలంగాణ మాండలిక ప్రత్యేకతను వివరించండి

లేదా

B ఆధునిక భాషా లక్షణాలను సోదాహరణంగా వివరించండి

★★★★★

009/JULY25/II-C(N)

FACULTY OF ARTS
M.A. (ENGLISH) II SEMESTER (CBCS-NEW) EXAMINATIONS, JULY 2025
INDIAN WRITING IN ENGLISH
PAPER- III

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Rural-Urban Conflict
- B Write a short note on main idea of Kamala Das's *An Introduction*?
- C Sketch the character role of Rajam?
- D Write a short note on the setting of *The Inheritance of Loss*?
- E How did Mr Kapasi become an interpreter?

SECTION – B (5 X 12 = 60 Marks)
Answer ALL the following questions

- 2 A Write an essay on the image of Colonial India in Indian Fiction?
OR
B Discuss the themes in Partition literature?
- 3 A Write an essay on the themes of Rabindranath Tagore's prescribed for your study?
OR
B Attempt a critical appreciation of Sarojini Naidu's *In the Bazaars of Hyderabad*?
- 4 A Mulk Raj Anand's *Untouchable* seeks to highlight the suffering of the outcastes? Discuss.
OR
B Discuss the significance of the novel *Swami and Friends*?
- 5 A Write a note on the use of magic realism in Salman Rushdie's *Midnight's Children*?
OR
B *The Inheritance of Loss* is a tale poised between India and the West? Discuss.
- 6 A Write an essay on the themes of *How I taught my Grandmother to read*?
OR
B Comment on the use of symbolism in Jhumpa Lahari's *Interpreter of Maladies*?

★★★★★

009/JULY25/II-B(O)

FACULTY OF ARTS
M.A. (ENGLISH) II SEMESTER (CBCS - OLD) EXAMINATIONS, JULY 2025
ENGLISH FICTION
PAPER – III

Time: 3Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL the following questions

- a. Bildungsroman
- b. Analysis of the character of Emma Woodhouse
- c. Character sketch of Thomas Gradgrind in *Hard Times*.
- d. Significance of the title *White Teeth*.
- e. The theme of “The Umbrella Man.”

SECTION – B (5 X 12 = 60 Marks)
Answer ALL the following questions

2. a) Explain the features of a Gothic novel with examples.

(OR)

- b) Elaborate the difference between Realism and Naturalism.

3. a) Discuss the theme of colonisation in *Robinson Crusoe*.

(OR)

- b) How does the novel *Jane Eyre* offer a critique of English class-based society?

4. a) Explain the narrative technique in Conrad’s *Heart of Darkness*.

(OR)

- b) Analyze *Tess* as a “Pure-Woman”.

5. a) How does Golding picture that man is essentially evil in nature in *Lord of the Flies*?

(OR)

- b) Examine *Sons and Lovers* as an exploration of the human psyche.

6. a) Summarize the short story “Lispeth”.

(OR)

- b) Discuss Roald Dahl’s narrative technique in the story “The Lamb to the Slaughter”.

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FACULTY OF SCIENCE
M.Sc. (PHYSICS/ENGG PHYSICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DIGITAL PRINCIPLES AND INTEGRATED CIRCUITS
PAPER –IV

Time: 3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a What is Decoder? Explain.
- b What is virtual ground concept in Op-Amp?
- c Draw the pin diagram of IC-555, label the pins.
- d Write a note on Frequency Spectrum of AM waves

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Discuss the simplification of Circuits using four variable Karnaugh Map .

OR

B Explain in detail about Asynchronous 4bit binary Counter with neat circuit diagram.

3 A Define slew rate and CMRR. Draw the circuit diagram of Integrator and obtain an expression for the output.

OR

B Draw the circuit diagram of triangular wave generator using IC-741 (Op-amp). Discuss necessary theory.

4 A Discuss the first order and second order low pass and high pass filters. Compare the results.

OR

B Explain about Schmitt trigger with neat circuit diagram .Discuss the theory and its significance.

5 A Describe in detail about the Envelope and Square law detector for AM detection.

OR

B Describe the construction and working FM Discriminator.

506/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (STATISTICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
MULTIVARIATE ANALYSIS
PAPER – IV

Time:3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write the properties of p-variate normal distribution?
- b Write the properties of Wishart distribution?
- c Write the test statistics used for testing means of single and two population means, stating their assumptions?
- d Explain the canonical variables and canonical correlations?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Stating the physical conditions obtain the probability function of multinomial distribution? Also write its properties and applications?

OR

- B Derive the characteristic function of p-variate normal distribution?

- 3 A Obtain the distribution of generalized sample variance?

OR

- B Obtain the distribution of Sample regression coefficient?

- 4 A Explain the bayes misclassification to discriminate two populations?

OR

- B Derive the density function of wilks lambda distribution?

- 5 A Derive the principal components and write its properties?

OR

- B Explain agglomerative hierarchical cluster methods?

FACULTY OF SCIENCE
M.Sc. (NUTRITION & DIETETICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
DIET AND DISEASE
PAPER – IV

Time:3 Hrs]

[Max.Marks:80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a Explain the structure of gall bladder.
 - b Write the advantages of haemodialysis.
 - c Write about food exchange lists.
 - d Explain non-ischemic heart disease.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Describe the symptoms, types and dietary management of viral hepatitis.
- OR**
- B Describe the symptoms and dietary management of cholelithiasis.
- 3 A Discuss the symptoms diagnosis and dietary management of chronic renal failure patient.
- OR**
- B Describe the types of urinary calculi and their management of such patients.
- 4 A Describe the symptoms diagnosis and dietary management of patient suffering from diabetes.
- OR**
- B Describe the dietary management of patients suffering from Cushing's syndrome.
- 5 A Discuss the symptoms and dietary management for patient suffering from gout.
- OR**
- B Describe the treatment and nutritional management for patient suffering from cancer.

FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
INTEGRAL EQUATIONS
PAPER – IV

Time:3Hrs]

[Max.Marks:80

SECTION-A (4 X 5 =20 Marks)**1 Answer ALL the questions.**

- a** Verify that $\phi(x) = e^x(\cos e^x - e^x \sin e^x)$ is a solution of the integral equation

$$\phi(x) = (1 - xe^{2x}) \cos 1 - e^{2x} \sin 1 + \int_0^x [1 - (x-t)e^{2x}] \phi(t) dt$$

- b** Solve the integral equation $\phi(x) = x - \int_0^x e^{x-t} \phi(t) dt$.

- c** Using Fredholm determinants, find the resolvent kernel of the kernel

$$K(x, t) = x^2 t - xt^2; \quad 0 \leq x \leq 1, 0 \leq t \leq 1.$$

- d** Establish whether a Green's function exists for the boundary-value problem

$$y'' = 0; \quad y(0) = y(1), \quad y'(0) = y'(1).$$

SECTION-B (4 X 15 = 60 Marks)**Answer ALL the questions.**

- 2 A** (i)Form an integral equation corresponding to the differential equation $y''' + xy'' + (x^2 - x)y = xe^x + 1$ with the initial conditions $y(0) = y'(0) = 1, y''(0) = 0$.

- (ii)With the aid of the resolvent kernel, find the solution of the integral equation

$$\phi(x) = xe^{x^2/2} + \int_0^x e^{-(x-t)} \phi(t) dt.$$

OR

- B** (i) Find the resolvent kernel of the Volterra-type integral equation with kernel $K(x, t) = \frac{\cosh x}{\cosh t}$

- (ii)Using the method of successive approximations, solve the integral equation

$$\phi(x) = 2x^2 + 2 - \int_0^x x \phi(t) dt, \quad \phi_0(x) = 2.$$

- 3 A** Solve the system of integral equations $\phi_1(x) = \sin x + \int_0^x \phi_2(t) dt$

$$\phi_2(x) = 1 - \cos x - \int_0^x \phi_1(t) dt.$$

OR

- B** Solve the integro-differential equation

$$\phi''(x) + \phi(x) + \int_0^x \sinh(x-t) \phi(t) dt + \int_0^x \cosh(x-t) \phi'(t) dt = \cosh x;$$

$$\phi(0) = -1, \quad \phi'(0) = 1.$$

- 4 A** Find the iterated kernels $K_1(x, t)$ and $K_2(x, t)$ if $a = 0, b = 1$ and

$$K(x, t) = \begin{cases} x+t, & 0 \leq x < t \\ x-t, & t < x \leq 1 \end{cases}$$

OR

- B** Find the characteristic numbers and eigen functions of the integral equation

$$\phi(x) - \lambda \int_0^\pi (\cos^2 x \cos 2t + \cos 3x \cos^3 t) \phi(t) dt = 0.$$

- 5 A** Construct Green's function for the homogeneous boundary-value problem

$$y^{IV}(x) = 0$$

$$y(0) = y'(0) = 0$$

$$y(1) = y'(1) = 0$$

OR

- B** Using Green's function, solve the boundary-value problem

$$y^{IV} = 1; y(0) = y'(0) = y''(1) = y'''(1) = 0.$$

517/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (DATA SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ARTIFICIAL INTELLIGENCE
PAPER - IV

Time:3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain briefly about Foundations of Artificial Intelligence.
- b Write a short note on Axiomatic Systems.
- c Explain briefly about Truth Maintenance Systems.
- d Write a short note on Semantic Web.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about Constraint Satisfaction.

OR

- B Write a detailed note on Alpha-Beta Pruning.

- 3 A What is Propositional Logic? Discuss about Refutation in Propositional Logic.

OR

- B Write a detailed note on Knowledge Representation using Semantic Network.

- 4 A What is an Expert System? List out the Applications of Expert Systems.

OR

- B Define Probability Theory. Also explain about Bayesian Belief Networks.

- 5 A Write a detailed note on Sentence Analysis Phases.

OR

- B Explain in detail about Grammars and Parsers.

502/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (BOTANY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ECOLOGY AND PHYTOGEOGRAPHY
PAPER - IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Food web
- b Mutualism
- c Cover and Basal Area
- d Terrestrial Biomes

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write on the habitat and niche interactions of the environment

OR

B Discuss on the methods of measurement of primary productivity

3 A Explain the main characteristics of a population

OR

B Explain the negative interactions of the populations

4 A Describe ecological succession with suitable diagrams

OR

B Write about the different levels of species diversity and its measurements

5 A Discuss on the theories of plant distribution

OR

B Write about the salient features of flora of Telangana State

FACULTY OF SCIENCE
M.Sc. (COMPUTER SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
COMPUTER NETWORKS
PAPER – IV

Time:3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain briefly about Ring Topology
- b List out Types of Errors.
- c What are Supplementary Services?
- d Explain briefly about Reliable Delivery.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A What is Multiplexing? Explain in detail about Wave Division Multiplexing.

OR

B Explain in detail about Digital Data Transmission. Also differentiate between Parallel Transmission and Serial Transmission.

3 A Define Redundancy. Differentiate between Vertical Redundancy Check and Longitudinal Redundancy Check.

OR

B Define Error Control. Explain in detail about ARQ.

4 A What are Bridges? Explain types of Bridges in detail.

.OR

B What is Information Sharing? Discuss in detail the Dijkstra Algorithm

5 A Discuss in detail about the Session Layer.

OR

B Explain in detail the following protocols in Network Layer:

- | | | |
|-------------|----------|-----------|
| i) ARP | ii) RARP | iii) ICMP |
|-------------|----------|-----------|

FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE & TECH.) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
TECHNOLOGY OF MEAT, FISH POULTRY AND THEIR PRODUCTS
PAPER – IV

Time:3Hrs]

[Max.Marks:80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write the sources of meat and meat products in India
- b Write about packaging of meat.
- c Draw the structure of egg and label its parts.
- d Explain the composition of fish.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the slaughtering house operations of animals.

OR

- B Describe the effect of feed, breed and management of meat production

- 3 A Describe the meat by products and its utilization.

OR

- B Describe the meat plant sanitation and safety aspects.

- 4 A Discuss in detail processing of egg for manufacture of egg powder.

OR

- B Explain the different methods to assess the quality of eggs.

- 5 A Describe the processing and preservation of shrimps.

OR

- B Describe the by products of poultry meat and packaging of the same.

526/JULY25/II-D

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
BIostatISTICS AND COMPUTER APPLICATIONS
PAPER – IV

Time:3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Role of biostatistics in modern research
 - b Flow charts
 - c spywares
 - d Genome relationships

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss Analysis of Variance and classes of ANOVA models

OR

- B Describe correlation. Add notes on logistic Regression

- 3 A Elucidate Introduction to MS EXCEL – use of worksheet to enter data, and GRAPHICAL TOOLS IN excel

OR

- B Write notes on MS word – editing, copying, moving, formatting, table insertion drawing flow charts

- 4 A Concise on the World wide web

OR

- B Describe online safety. Add notes on viruses

- 5 A Emphasize on Genomics and Proteomics

OR

- B Explain Computational Biology and Phylogenetic alignment

518/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (MICROBIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
PHARMACEUTICAL MICROBIOLOGY
PAPER - IV

Time:3Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Evaluation of the microbial stability of formulation
- b Target sites of drug action in microbes
- c Sensitivity testing
- d Phenomenon of drug resistance

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write a brief account on microorganisms affecting pharmaceutical industry.

OR

B Describe the general account on microbiological spoilage prevention of pharmaceutical products.

3 A Give a brief sketch of development of synthetic drugs prescribed.

OR

B Discuss the brief account on methods of testing for microbes and preservation of cosmetics.

4 A Describe the detailed account on principles of chemotherapy.

OR

B Explain the concept of cell wall, membrane and macromolecular synthesis inhibitors.

5 A Write the detailed account on assays for growth promoting substances, nutritional mutants and their importance.

OR

B Give the brief account on pharmacokinetics and pharmacogenomics.

503/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (CHEMISTRY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ANALYTICAL TECHNIQUES & SPECTROSCOPY – II
PAPER – IV

Time: 3Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer All Questions.

- a) Calomel electrode.
- b) Single Frequency Off Resonance Decoupled spectra.(SFORD)
- c) Nitrogen Rule.
- d) Zero field splitting.

SECTION _ B (4 X 15 = 60 Marks)

Answer All Questions

- 2. a) Explain principles involved in Amperometric titrations? Give it's applications.
b) Explain application of DC polarography
(OR)
c) Explain the following
(i) A.C Polarography (ii) Square – wave Polarography
d) Explain principle involved in cyclic voltametry. Write a sort note on reversible and irreversible cyclic voltagram.
- 3. a) Explain the principles involved in DEPT Spectra .Give it's applications.
b) Discuss various types of ^{13}C spectra.
(OR)
c) Describe the ^{19}F NMR of SF_4 and ClF_3 Molecules.
d) Explain applications ^{31}P NMR Spectra.
- 4. a) Explain following terms in mass Spectroscopy.
(i) Isotopic Peaks (ii) Meta Stable ion Peaks (iii) Diels-Alder fragmentation
(OR)
b) Explain the Principle involved involved in Gas Chromatography – Mass Spectroscopy (GC-MS)
- 5. a) Explain Basic Principle & Instrumentation involved in ESR Spectroscopy.
b) Describe the phenomenon of hyperfine splitting in ESR Spectra.
(OR)
c) Explain ESR Spectra of following
i) methyl free radical ii) 1,4- benzoquinone
d) Explain the ESR Spectra of d^3 & d^8 Transition metal complexes with examples.

614/JULY25/II-D

FACULTY OF SCIENCE
M.Sc. (FOOD SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FOOD COMMUNICATION
PAPER –IV

Time:3Hrs]

[Max.Marks:80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Explain food writing.
- b What are primary foods.
- c Give a brief account on natural future foods.
- d Explain tweeters.

SECTION – B (4 X 15 =60 Marks)

Answer ALL questions

2 A Discuss the history of cook books.

OR

B Describe in detail about online groceries.

3 A Discuss briefly about tasting and testing.

OR

B Describe convenience foods and its advantages.

4 A Discuss in detail food as medicine.

OR

B Describe in detail the process of designing an advertisement.

5 A Give a brief account on (i) Food Countercultures (ii) Process of interview of a cook.

OR

B Give a brief account on (i) Marketing of Foods (ii) Health Claims.

408/JULY25/II-D

**FACULTY OF COMMERCE
M.COM II SEM (CBCS) EXAMINATIONS, JULY 2025
HUMAN RESOURCE MANAGEMENT
PAPER – IV**

Time:3Hrs]

[Max.Marks:80

1. **SECTION - A (5 X 4 = 20 Marks)**

Answer ALL Questions

- A. What is Employee Engagement?
- B. Define Human Resource Planning.
- C. What are the factors affecting the selection?
- D. What is Socialization?
- E. Discuss the process of performance appraisal

SECTION – B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2 A What is Human Resource Management? Describe the Functions of Human Resource Management.

OR

- B Explain the models of Human Resource Management.

- 3 A What is job analysis? Describe the techniques used for job analysis.

OR

- B What are the recent trends in Recruitment? What challenges are faced by Human Resource Managers of today?

- 4 A Explain the various types of tests used in selection process

OR

- B What do you understand by employment tests? Describe briefly the most important among these tests.

- 5 A What are the factors influencing Training and Development? Explain the Training and Development Process.

OR

- B Why there is a need for training and development for employees? Discuss at least two methods of training.

- 6 A Define performance management. Discuss various methods to appraise the performance of employees.

OR

- B What is career planning and development? Discuss the various stages involved in career.

410/JULY25/II-D

FACULTY OF COMMERCE
M.COM. (COM. APPLICATIONS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ADVANCED PROGRAMMING WITH C
PAPER-IV

Time: 3 Hrs]

[Max . Marks: 60

SECTION - A (5 X 2 = 10 Marks)

1. Answer ALL the questions

- a. What are the different types of programming languages?
- b. Define selection sort.
- c. What is a function?
- d. What is a pointer? How is it declared?
- e. Differentiate between text file and binary file.

SECTION - B (5 X 10 = 50 Marks)

Answer ALL the questions

2. a. Describe the history and features of the C programming language.
OR
b. Discuss different data types used in C. How are variables and constants declared?
3. a. Write a C program to demonstrate all types of loops.
OR
b. Describe linear and binary search algorithms with example programs.
4. a. Describe the types of functions and how they are declared and called in C.
OR
b. Write a C program to demonstrate function with parameters.
5. a. Explain character arrays (strings) with suitable examples.
OR
b. Compare and contrast structures and unions in C.
6. a. Explain the steps to create and process a text file in C.
OR
b. Discuss file handling functions available in C.

425/JULY25/II-D

FACULTY OF COMMERCE
M.COM. (F. A) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ACCOUNTING STANDARDS AND FINANCIAL REPORTING
PAPER - IV

Time: 3 Hrs]

[Max . Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL of the following questions

- a) Financial accounting standards.
- b) ASB
- c) IFRS.
- d) Harmonization of Financial Reporting.
- e) APB.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL the questions

2. a) Discuss the role of standards setting bodies in different countries.

(OR)

b) Explain the sources and benefits of accounting standards.

3. a) Briefly explain the standard setting procedure and functioning of ICAI.

(OR)

b) Write about the concept of AS-1, AS-4 and AS-8

4. a) Discuss following International accounting standards

IAS-13

IAS-14

IAS-30

(OR)

b) Explain the need and nature of international accounting standards.

5. a) What is financial reporting? Explain various types of financial reporting.

(OR)

b) What are the limitations of financial reports?

6. a) Briefly explain the need and objectives of corporate reporting.

(OR)

b) Discuss various elements of True blood report and Stamp report.

FACULTY OF ARTS AND SOCIAL SCIENCES
M.A. (ECONOMICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
COMPUTER APPLICATIONS
PAPER - IV

Time:3Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Define Computer.
- b What is a WordPad in computer?
- c What is the basic concept of data?
- d Write a note on MS Access.
- e What is the distribution function?

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Write about the Evolution of Computer.

OR

B What are the Computer Applications used in different fields like Banks, Post-Office, Railways, Income tax?- Examine

3 A Explain the merits of Windows Operating Systems.

OR

B Write about the creating, opening and saving files in Microsoft Word.

4 A How can descriptive statistics be used to analyze data?-Analyze.

OR

B Examine the Leontiff Input-Output Model.

5 A How do you Creating, opening and working with data in MS-Access?- Explain

OR

B Write a note on creating, opening and saving the slide shows

6 A What are the Basics of Data Analysis? Examine the Computing data with SPSS.

OR

B What is the importance of Time-Series Analysis for data analysis? Explain

317/JULY25/II-D

FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
SOCIAL DEMOGRAPHY
PAPER – IV

Time: 3Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL Questions

- a. Scope of demographic studies
- b. Theory of Demographic transition
- c. Maternal Mortality
- d. Under Population
- e. Concept of Family Welfare.

SECTION – B (5 X 12 = 60 Marks)

Answer ALL Questions

2. A) Define Migration and discuss how migration affect social structure?

OR

- B) Discuss the importance of various sources of demographic data in understanding population dynamics.

3. A) Explain the consequences of an imbalanced age and sex distribution?

OR

- B) Define Maternal mortality and discuss about the current status in India

4. A) Explain fecundity in demographic terms in detail.

OR

- B)Examine the theory of demographic transition and its stages.

5. A) Write about the socio-cultural factors affecting population growth in India. How these factors contribute to the population explosion?

OR

- B) Write an essay on the concept of optimum population.

6. A) Explain the evolution of population policies in India.

OR

- B) Discuss the effectiveness of family planning and family welfare programs in controlling population growth in India .

310/JULY25/II-D

FACULTY OF ARTS AND SOCIAL SCIENCES
M.S.W II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
HUMAN RESOURCE MANAGEMENT
PAPER - IV

Time: 3 Hrs]

[Max.Marks:80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a HRM Vs HRD
- b On -boarding
- c Sub systems of Leavitt's model
- d Vertical and Horizontal communication
- e Importance of MIS

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Elucidate about the trends of HRD systems.

OR

B Explain the mechanisms related to designing of HRD systems.

3 A Explain the purposes of training and development in HRM.

OR

B Analyse the need for supervision and monitoring in training.

4 A Discuss about Kurt Lewin's three step model of organizational development.

OR

B Elaborate on the strategies of Organization development.

5 A Explain the attributes for effective leadership.

OR

B Present an overview about the contribution of Likert towards leadership.

6 A Analyse the application of software in MIS by managers.

OR

B Discuss about the software packages related to MIS.

FACULTY OF ARTS
M.A (Urdu) II Semester Examination (CBCS)
Paper - IV چوتھا پرچہ
لسانیات (Lisaniyaat)

Code: 016/JULY25/II-D

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

(حصہ الف)

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. لسانیات کی تعریف کیجیے اور اس کے سروکار کی وضاحت کیجیے۔
2. فونیمیات میں کن موضوعات پر بحث کی جاتی ہے۔
3. کلاسیکی سنسکرت پر مختصر نوٹ لکھیے۔
4. اردو زبان کی ابتدا کے بارے میں نصیر الدین ہاشمی کا نظریہ بیان کیجیے۔
5. برج بھاشا پر مختصر نوٹ لکھیے۔

(حصہ ب)

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔

6. (A) لسانیات اور مختلف علوم کے باہمی تعلق پر روشنی ڈالیے۔

یا

(B) علم لسانیات کی مختلف قسموں کی وضاحت کیجیے۔

7. (A) زبان کی ابتدا کے بارے میں ماہرین کے نظریات پیش کیجیے۔

یا

(B) صوتیات، صرف اور نحو پر تفصیلی اظہار خیال کیجیے۔

8. (A) اپ بھرنشوں کے ارتقا کا جائزہ لیجیے۔

یا

(B) ہند آریائی کے عہد جدید پر روشنی ڈالیے۔

9. (A) کھڑی بولی پر ایک جامع نوٹ لکھیے۔

یا

(B) برج بھاشا کی خصوصیات اور علاقائی حدود کی وضاحت کیجیے۔

10. (A) اردو اور ہندی زبان کے اشتراکات پر روشنی ڈالیے۔

یا

(B) اردو زبان کی ابتدا کے بارے میں محمود شیرانی اور ڈاکٹر زور کے نظریات کا جائزہ لیجیے۔

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015/JULY25/II-D

FACULTY OF ARTS
M.A (TELUGU) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025

సంస్కృతం -II

పేపర్ - IV

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 Answer ALL the questions

- a నాందీ, ప్రస్తావనలు
- b వరరుచి
- c భర్తృహరి
- d హర్ష నైషధం
- e సవర్ణదీర్ఘ సంది

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the questions

2 A సంస్కృత నాటక కర్తలలో కాళిదాసు భవభూతి ప్రత్యేకతను వివరించండి

లేదా

B నాటక లక్షణాలలో పంచ సంధులు, అర్థోపక్షేపకాల పాత్రను చర్చించండి

3 A పతంజలి, యాస్కుల రచనలను పరిచయం చేయండి

లేదా

B సంస్కృత సాహిత్యంలోని శాస్త్ర గ్రంథాలను నాలుగిటిని పరిచయం చేయండి

4 A సంస్కృత సాహిత్యంలోని నలుగురు శతక కర్తలను పరిచయం చేయండి

లేదా

B ఆనంద వర్ధనుని ధ్వన్యలోక గ్రంథాన్ని పరిచయం చేయండి

5 A సంస్కృత పంచ కావ్యాలలో రఘువంశం ప్రత్యేకతను వివరించండి

లేదా

B సందేశ కావ్యాలలో మేఘ సందేశం కావ్య విశిష్టతను వివరించండి

6 A ఋత్వ, శ్చుత్వ సంధులను ససూత్రంగా, సోదాహరణంగా వివరించండి

లేదా

B తత్పురుష, నఞ్ తత్పురుష , ద్వీగు సమాసాలను స సూత్రంగా సోదాహరణంగా వివరించండి

009/JULY25/II-D

FACULTY OF ARTS
M.A. (ENGLISH) II SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
ENGLISH LANGUAGE TEACHING
PAPER- IV

Time:3 Hrs]

[Max. Marks:80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Cognitivism
- B English as a Global Language?
- C What is Grammar Translation Method?
- D What are Micro-Skills?
- E What is the importance of evaluation?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Write an essay on Attribution Theory?

OR

B Explain in detail the role of Behaviourism in Language Learning?

3 A Write an essay on the development of English in Post-Independence period?

OR

B Write an essay on English as a Second Language in India?

4 A What are the principles of the Direct Method? Explain.

OR

B What are the techniques of Audio - Lingual Method in language learning?

5 A What are the strategies of teaching LSRW Skills in English? Explain.

OR

B What are the steps involved in Micro-Teaching? Discuss.

6 A What are the different types of Evaluation? Explain.

OR

B What are the objectives of tests? Explain.

009/JULY25/II-C(O)

FACULTY OF ARTS
M.A.(ENGLISH) II SEMESTER (CBCS OLD) EXAMINATIONS, JULY 2025
WOMEN'S WRITING
PAPER – IV

Time: 3Hrs]

[Max. Marks: 80

SECTION–A (5 X 4 = 20 Marks)

1. Answer ALL the following questions

- a. Sex and Gender
- b. Theme of Aemilia Lanyer's "Eve's Apology in Defense of Women".
- c. Examine the use of multiple perspectives in *Wide Sargasso Sea*.
- d. Write about Suniti Namjoshi's in "The Little Princess."
- e. The role of dreams in *A Raisin in the Sun*.

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

6. a) Analyze the historical roots of the Women's Liberation Movement.
(OR)
b) Examine the ways in which feminist criticism has challenged traditional literary canons.
7. a) Analyze the complex father-daughter relationship in "Daddy."
(OR)
b) Discuss how Nichols uses the waterpot as a symbol in the poem.
8. a) Analyze how Morrison addresses the intersection of race and gender in the novel *The Bluest Eye*.
(OR)
b) Discuss the theme of cultural displacement in *Americanah*.
9. a) In "When We Dead Awaken," Rich critiques traditional literary canon and its exclusionary practices.
(OR)
b) Examine how Namjoshi subverts traditional patriarchal narratives in *Feminist Fables*.
10. a) Discuss the portrayal of marriage in *Anowa*.
(OR)
b) Examine how *Blasted* reflects on the horrors of war.

009/JULY25/II-E(O)

FACULTY OF ARTS
M.A (ENGLISH) II SEMESTER (CBCS) EXAMINATION JULY 2025
TWENTIETH CENTURY LITERARY CRITICISM AND THEORY
PAPER-V

Time: 3 Hours]

[Max. Marks: 80

SECTION–A (5 x 4 = 20 Marks)

1. Answer all the following questions

- a) New Historicism
- b) Aristotle's views on the role of plot
- c) Northrop Fry's "Archetypes of Literature"
- d) Barthes' arguments in "The Death of the Author"
- e) Edward Said's "Introduction" to *Orientalism*

SECTION – B (5 x 12 = 60 Marks)

Answer ALL the following questions

6. a) Analyze the core principles of Structuralism.

(OR)

- b) Explore the main tenets of Post-structuralism

7. a) Evaluate the stylistic contributions of "Astrophil and Stella" to the sonnet tradition.

(OR)

- b) Johnson critiques Shakespeare for his supposed moral shortcomings.

8. a) Discuss the significance of Frye's 'mythological' archetype in literature.

(OR)

- b) Analyze Bakhtin's notion of the "dialogic nature" of the novel.

9. a) Explain the implications of Foucault's "The Unities of Discourse" for contemporary discourse analysis.

(OR)

- b) Examine the evolution of Williams's definition of literature throughout his career.

10. a) Explore the role of historical and cultural context in Showalter's analysis of feminist criticism.

(OR)

- b) Write about Said's "Introduction to Orientalism" for contemporary postcolonial studies.

★★★★★

FACULTY OF SCIENCE
M. Sc. (DATA SCIENCE) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
ADVANCED MACHINE LEARNING TECHNIQUES
PAPER – V

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (4 X 5 =20 Marks)

- 1 **Answer ALL the questions**
- a Write a short note on Feature Extraction techniques.
 - b Explain briefly about SVM.
 - c Write a short note on Random Forest Algorithm.
 - d Explain briefly about Single Linkage Method.

SECTION - B (4 X 15 = 60 Marks)
Answer ALL questions

- 2 A Write a detailed note on Inter and Intra Class Distance Measures.

OR

- B Explain in detail about Canonical Correlations and Canonical Variables.

- 3 A Write a detailed note on Naive Bayes Classifier.

OR

- B Discuss in detail about Multiple Linear Regression.

- 4 A Write a detailed note on Gradient Boosting.

OR

- B Explain in detail about Ada-Boosting and XG-Boosting Algorithm.

- 5 A Discuss in detail about K-means and K-Nearest Neighbourhood Clustering.

OR

- B Write a detailed note on Time Series Forecasting: ARIMA Model.

★★★★★

425/JULY25/II-E

FACULTY OF COMMERCE
M.COM (ALL STREAMS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
COMPUTER APPLICATIONS IN ACCOUNTING
PAPER - V

Time: 3 Hrs]

[Max. Marks: 60

SECTION - A (5 X 2 = 10 Marks)

1. Answer ALL Questions

- a. Define computerized accounting.
- b. How do you create a ledger in Tally?
- c. Define TDS in Tally.
- d. How is depreciation treated in Tally?
- e. What is Tally Vault?

SECTION - B (5 X 10 = 50 Marks)

Answer ALL the questions

2. a. Explain the need and advantages of computerized accounting.

OR

- b. Describe the functions and layout of Gateway of Tally.

3. a. Discuss various voucher types in Tally with examples.

OR

- b. Define Stock Groups and Stock Items with suitable example.

4. a. Explain how payroll is managed in Tally.ERP9.

OR

- b. Write a detailed note on TDS and TCS functionalities in Tally.

5. a. Describe the process of generating a Profit and Loss Account and Balance Sheet with suitable hypothetical data.

OR

- b. Discuss the various financial reports that can be generated using Tally.

6. a. Explain the use and benefits of Tally Vault and Data Security.

OR

- b. Explain how to handle virus and data loss problems in Tally.

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313/JULY25/II-E

FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025
FINANCIAL ECONOMICS
PAPER – V

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a. What are the Financial Services?
- b. Write a short note on Treasury Bill market.
- c. What is New Issues?
- d. Define Private Finance.
- e. What are Mutual Funds?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the Questions

2. A) Examine the Banking structure in India.

OR

B) What are the recommendations of Narasimham Committee for banking reforms? Explain.

3. A) What is money market in India and its structure?-Explain.

OR

B) Discuss the Money market reforms in India.

4. A) Explain the Difference between the Primary and Secondary Market.

OR

B) What is the role of capital market in economic development in India?-Discuss

5. A) What is the role of SEBI in capital market development?-Describe.

OR

B) Explain the Growth and Structure LIC and GIC of India.

6. A) Describe the Comparative performance of money market and capital markets in India.

OR

B) What are the challenges faced by the Indian financial system in promoting financial stability and growth?-Examine.

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FACULTY OF ARTS
M.A (SOCIOLOGY) II SEM (CBCS) EXAMINATIONS, JULY 2025
SOCIAL ISSUES, POLICES AND DEVELOPMENT
PAPER – V

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL Questions

- a) Untouchability in India
- b) Religious minorities
- c) Feminist Perspective
- d) Age related Issues.
- e) Globalisation

SECTION – B (4 X 5 = 20 Marks)
Answer ALL Questions

2. A) Define Caste and discuss Casteism as a social issue in India with appropriate examples.
OR
B) Examine the Status of Disabled population in India with relevant social policies designed for them.
3. A) Define Social Development and discuss the Feminist perspective in detail.
OR
B) Elaborate the constitutional safeguards for Scheduled Castes and Scheduled Tribes in India.
4. A) What is Social Work and discuss its importance in the field of Non-Governmental Organisations.
OR
B) Describe the State Level Welfare schemes related to OBCs and Children in India.
5. A) Define Human Development and discuss the status of Human Development in contemporary India.
OR
B) Give a detail account of Sustainable Development in India mention any two policies related to Sustainable development.
6. A) Define Globalisation and discuss its impact on caste-based occupations in India.
OR
B) What are the issues and challenges involved in implementing development projects in India specially with reference to mining.

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FACULTY OF ARTS AND SOCIAL SCIENCES
MSW II SEMESTER (CBCS OLD) EXAMINATIONS, JULY 2025
COUNSELLING THEORY & PRACTICE
PAPER – V(A)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Principles of counselling
- b Relationship building phase of model in counselling
- c Types of behaviour modification therapy
- d Marital counselling
- e SARS counselling

SECTION-B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain about the nature and scope of the counselling.

OR

- B What are the techniques of counselling in social work? Describe.

- 3 A Briefly discuss the various phases in the models of counselling.

OR

- B Write about the psychoanalytic therapy counselling centre.

- 4 A Analyze the rational emotive therapy in counselling.

OR

- B Define the crisis intervention and explain its goals and key concepts.

- 5 A The counselling as a method in suicidal situations in an individual life-Describe

OR

- B Discuss the key concepts of the child guidance clinics(CGC) of counselling method.

- 6 A Explain the study of severe acute respiratory syndrome(SARS) counselling method.

OR

- B What are the review analyse of geriatric counselling cases. Describe

★★★★★

FACULTY OF ARTS
M.A (Urdu) II Semester Examination (CBCS) JULY 2025
پانچواں پرچہ Paper - V
ناول (Novel)

[Time : 3 Hours]

Answer ALL the questions

Max Marks : 80

(حصہ الف)

(5 x 4 = 20)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے چار نشانات ہیں۔ ہر جواب پندرہ سطروں میں تحریر کیا جائے۔

1. ناول کی تعریف میں مختلف نقادوں کے خیالات پیش کیجیے۔

2. عبدالحلیم شرر کی ناول نگاری پر اظہار خیال کیجیے۔

3. جیلانی بانو کی ناول نگاری پر اختصار یہ لکھیے۔

4. بانو قدسیہ کے کوئی دو ناولوں کا تعارف کرائیے۔

5. 'ایک چادر میلی سی' کی سماجی و تہذیبی اہمیت اجاگر کیجیے۔

(حصہ ب)

(5 x 12 = 60)

نوٹ: تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ نشانات مختص ہیں۔ ہر سوال کا جواب چار صفحات سے زیادہ نہ ہو۔

6. (A) ناول کے فن اور اس کی مختلف قسموں پر روشنی ڈالیے۔

یا

(B) ناول کی صنفی خصوصیات اور اس کے اجزائے ترکیبی کی وضاحت کیجیے۔

7. (A) نذیر احمد کی ناول نگاری کا تنقیدی محاکمہ کیجیے۔

یا

(B) رتن ناتھ سرشار کے ناولوں کا تعارف کرائیے۔

8. (A) اردو ناول پر تقسیم ہند کے اثرات کی وضاحت کیجیے۔

یا

(B) حقیقت پسند ناولوں میں زندگی کے مسائل کی ترجمانی کا جائزہ لیجیے۔

9. (A) پیغام آفاقی کے ناولوں کے سماجی سروکار سے بحث کیجیے۔

یا

(B) قاضی عبدالستار کی ناول نگاری کا تنقیدی جائزہ لیجیے۔

10. (A) ناول 'ایک چادر میلی سی' کے پلاٹ پر اظہار خیال کیجیے۔

یا

(B) 'امراؤ جان ادا' کے فنی وادبی محاسن کا احاطہ کیجیے۔

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015/JULY25/II-E

FACULTY OF ARTS
M.A (TELUGU) II SEMESTER (CBCS) EXAMINATIONS, JULY 2025

తెలుగువారి చరిత్ర సంస్కృతి -2

పేపర్ - V

Time:3Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a ప్రతాపరుద్రుడు
- b విశ్వనాథ నాయకుడు
- c నిజాంతలీఖాన్
- d విదేశీవస్తుబహిష్కరణ
- e తెలుగు వారి పండుగలు

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the questions

2 A వేములవాడ చాళుక్యుల నాటి మత సాంస్కృతిక జీవన రీతులను వివరించండి.

లేదా

B కాకతీయులనాటి మత సాంస్కృతిక జీవన విధానాన్ని వివరించండి.

3 A విజయనగర కాలపు సాహిత్య వైభవాన్ని వివరించండి.

లేదా

B తంజావూరు నాయక రాజుల కాలం నాటి సామాజిక సాంస్కృతిక జీవన రీతిని వివరించండి.

4 A కుతుబ్ షాహీల తెలుగు సాహిత్య సేవను వివరించండి.

లేదా

B ఆసఫ్ జాహీల పరిపాలన రీతిని వివరించండి.

5 A భారత స్వాతంత్ర్యోద్యమంలో ఆంధ్రుల పాత్రను వివరించండి.

లేదా

B తెలంగాణ విమోచనోద్యమానికి దారి తీసిన పరిస్థితులను వివరించండి.

6 A పునరుజ్జీవనోద్యమ స్వరూప స్వభావాలను వివరించండి.

లేదా

B సంస్కరణోద్యమ భూమికను నాటి పరిస్థితులను వివరించండి.

★★★★★

009/JULY25/II-E

FACULTY OF ARTS
M.A. (ENGLISH) II SEM (CBCS-NEW) EXAMINATIONS, JULY 2025
LITERARY CRITICISM
PAPER- V

Time:3 Hrs]

[Max. Marks:80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Write a short note on functions of criticism?
- B How does Sidney relates poetry to nature?
- C What is the theory of three unities according to Johnson?
- D What is poetry, diction and language according to Wordsworth?
- E What does 'intention' mean according to I.A. Richards?

SECTION – B (5 X 12 = 60 Marks)
Answer ALL the following questions

- 2 A What are the different approaches to Criticism? Explain.

OR

- B Write an essay on different kinds of criticism?

- 3 A Aristotle's perspective on poetry being more philosophical and profound than history? Explain.

OR

- B Philip Sidney emphasizes that poetry is superior to history and philosophy based on *Defence of Poesie*? Elaborate.

- 4 A John Dryden justifies drama as a legitimate form of poetry? Discuss.

OR

- B Discuss Johnson's views on Shakespeare's Tragic-Comedies?

- 5 A Wordsworth states poetry must reflect spontaneity and an overflow of powerful feelings in his *Preface to Lyrical Ballads*? Elucidate.

OR

- B Mathew Arnold states that poetry is the criticism of life? Elaborate.

- 6 A Discuss the concept of tradition and individual talent by T.S. Eliot?

OR

- B I.A. Richards divides language functions into four types of meaning? Explain.

★★★★★

009/JULY25/II-D(O)

FACULTY OF ARTS
M.A.(ENGLISH) II SEMESTER (CBCS) EXAMINATIONS, AUGUST 2025
TWENTIETH CENTURY BRITISH LITERATURE
PAPER –V

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer all the following questions

- a. Symbolism
- b. The role of irony in "Church Going."
- c. The futility of human existence in *Waiting for Godot*.
- d. Industrial setting in D.H. Lawrence's *Sons and Lovers*.
- e. The theme of loss of innocence in *Lord of the Flies*.

SECTION–B (5 X 12 = 60 Marks)

Answer ALL the following questions

6. a) Assess the role of stream of consciousness in exploring themes of alienation and fragmentation in literature.

(OR)

- b) Evaluate the portrayal of the Oedipus complex in contemporary literature.

7. a) Discuss the use of myth and literary allusion in *The Waste Land*.

(OR)

- b) Write about the concept of the "gyre" as presented in "The Second Coming."

8. a) Examine the interplay between hope and despair in *Waiting for Godot*.

(OR)

- b) Discuss the existential crises faced by the characters in *Waiting for Godot*.

9. a) Write about the significance of the mother-son relationship in *Sons and Lovers*.

(OR)

- b) Virginia Woolf addresses mental health issues in *Mrs. Dalloway*. Explain.

10. a) Analyze the character of Ralph in *Lord of the Flies*.

(OR)

- b) Explore the role of fear and its impact on the boys' behavior in *Lord of the Flies*.

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