

FACULTY OF COMMERCE
M.Com. (ALL STREAMS) I SEMESTER (CBCS R-23 NEW & OLD) EXAMINATIONS FEB 2024
BUSINESS ENVIRONMENT
PAPER - I

Time: 3 Hours]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the questions

- a) What is Environmental forecasting?
- b) What is Economic Development?
- c) Directive principles of state policy.
- d) What is Social audit?
- e) FIIS.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2.** a) What is Business environment? Explain various types of environment?

(OR)

- b) What is environmental analysis? Explain stages and techniques of environmental analysis.

- 3.** a) What are the economic reforms and explain various economic policies.

(OR)

- b) What is technological environment? Explain features and impact of technological transfer.

- 4.** a) Explain the role of political institutions in Business Environment.

(OR)

- b) What is Legal frame work of business? Explain various Regulatory Institutions.

- 5.** a) . What is Business and Society? Explain objectives and social responsibilities of business.

(OR)

- b) What is Corporate Governance? Explain Nature and Mechanism of Corporate Governance.

- 6.** a) What is Globalization? Explain stages, drivers and players in globalization

(OR)

- b) Explain objectives and organisation structure of World Trade Organization.

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FACULTY OF SCIENCE
MSC (BOTANY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
PHYCOLOGY
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Reserve Food Material in Algae
- B Ulva
- C *Cymbella*
- D Algae as Biofertilizers

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 A Discuss on the different types of reproduction in Algae with suitable examples

OR

- B Explain Fritsch and Parker system of Algal Classification

- 3 A Discuss on the general characters and life history of *Nitella* with suitable diagrams

OR

- B Describe the general characters and classification of Cyanophyceae

- 4 A Discuss on the morphology and life history of *Porphyra* with suitable diagrams

OR

- B Write in detail on the economic importance of Pheophyceae

- 5 A Write a detailed account on Algal Blooms and Toxic Algae

OR

- B Discuss the role of algae in Pharmacy and Human Food

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FACULTY OF SCIENCE
MSc (COMPUTER SCIENCE) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
DISCRETE MATHEMATICS
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

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

- a Write a short note on Sets.
- b Explain briefly about Generating Functions.
- c Define Binary Relations.
- d Explain briefly about Isomorphism.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL questions**2 A Let $U=\{1,2,3,4,5\}$, $A=\{1,5\}$, $B=\{1,2,3,4\}$, and $C=\{2,5\}$. Determine the following Sets

(a) $A \cap \bar{B}$.

(b) $A \cup (B \cap C)$.

(c) $(A \cup B) \cap (A \cup C)$.

OR

B Prove that the following are Tautologies:

(a) $\sim(p \vee q) \vee [(\sim p) \wedge q] \vee p$.

(b) $[(p \rightarrow q) \wedge (r \rightarrow s) \wedge (p \vee r)] \rightarrow (q \vee s)$.

(c) $[(p \rightarrow r) \wedge (q \rightarrow r)] \rightarrow [(p \vee q) \rightarrow r]$.

3 A Explain in detail about Calculating Coefficients of generating Functions.

Find the coefficient of X^{14} in:

(a) $(1 + X + X^2 + X^3)^{10}$,

(b) $(1 + X + X^2 + X^3 + X^4 + \dots + X^8)^{10}$,

(c) $(X^2 + X^3 + X^4 + X^5 + X^6 + X^7)^4$.

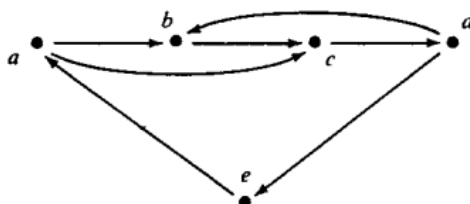
ORB What are Recurrence Relations? Find a Recurrence Relation for the number of ways to make a pile of n chips using garnet, gold, red, white and blue chips such that no two gold chips are together.

4 A Discuss in detail the special properties of Binary Relations. State the negation of :

- a) Relation R is both reflexive and transitive.
- a) Relation R is both symmetric and transitive

OR

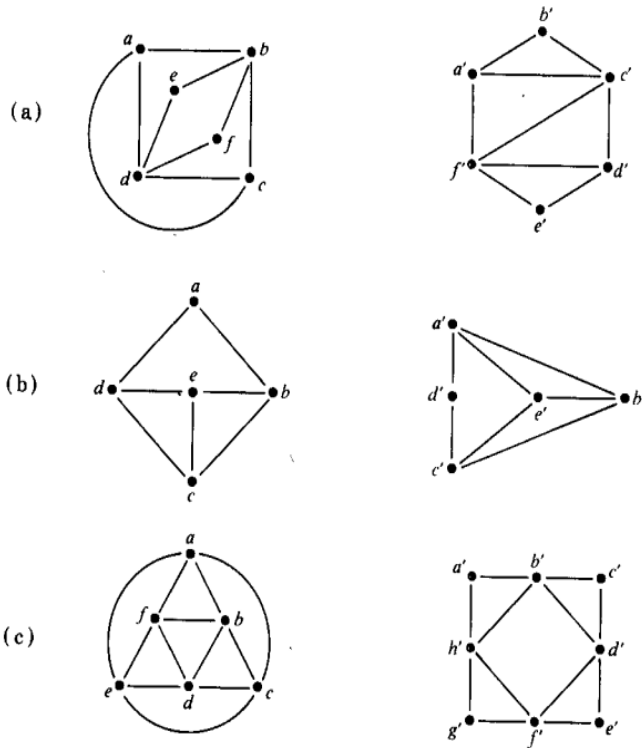
B Consider the digraph in the figure:



- a) Find all the weakly connected components.
- b) Find all the unilaterally connected components.
- c) Find all the strongly connected components.

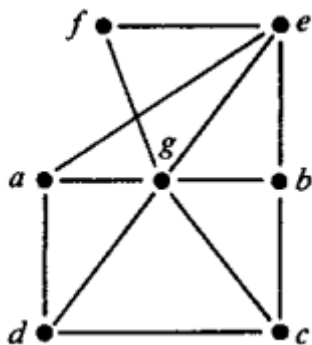
(Contd.....)

- 5 A Which of the following pairs of non directed graphs in the following figure are isomorphic? Justify your answer.



OR

- B What is a Spanning Tree? Find the Spanning tree for the following graph using BFS:



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FACULTY OF SCIENCE
M. Sc (FOOD SCI & TECH) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
FOOD CHEMISTRY AND NUTRITION
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION-A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Write about dietary fibre and its food applications.
- b What are protein concentrates explain.
- c Explain the antinutritional compounds.
- d Write the classification of food additives with examples.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A Describe the classification sources and functions of carbohydrates.

OR

- B Discuss the types of water and measurement of water activity.

- 3 A Discuss in detail enzymatic browning in foods along factors affecting and methods of prevention.

OR

- B Describe the factors leading to rancidity and reversion along with changes occurring in lipids during storage and processing.

- 4 A Discuss the pigments found in foods along with changes occurring vitamins during storage and processing.

OR

- B Describe the classification of enzymes along with their properties and industrial applications

- 5 A Describe the evaluation techniques used for toxicity testing along with their uses.

OR

- B Briefly explain the digestion and absorption of essential nutrients.

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FACULTY OF SCIENCE
M. Sc (ZOOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
BIOSYSTEMATICS, STRUCTURE AND FUNCTION OF INVERTEBRATES
PAPER - I

TIME: 3 HRS

MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Taxonomic keys
- b Digestion in Metazoans
- c Osmoregulation
- d Larval forms of Annelids

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain the concept of Speciation and its mechanism.

OR

- B Write about different types of Zoological types in detail.

- 3 A Describe the Filter feeding mechanism in Polychaetes.

OR

- B Illustrate the various organs of respiration and their mechanism of respiration.

- 4 A Give an account on Annelids Organs of excretion and its physiology.

OR

- B Describe the evolutionary trends of nervous system in invertebrates.

- 5 A Write the general organisation and affinities of Mesozoa.

OR

- B Discuss about evolutionary significance of larval forms.

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FACULTY OF SCIENCE
MSC (MICROBIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
GENERAL MICROBIOLOGY & MICROBIAL PHYSIOLOGY

PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Early Microbiologists
- B Autotrophic media
- C Numerical taxonomy
- D Formation of protoplasm

SECTION - B (4 X 15 = 60 Marks)

Answer ALL Questions

2 A Explain the principles, working and applications of Electron Microscope

OR

B Write about the organization and functions of cellular organelles of prokaryotic cell

3 A What are the physical and chemical methods used in sterilization and disinfection

OR

B Write about the different methods employed for preservation and maintenance of microbial cultures

4 A Explain the important aspects of microbial nutrition and metabolism

OR

B Discuss on biochemical and immunological identification methods of bacteria. Add a note on properties of bacteria

5 A Describe cell cycle in microbes in detail

OR

B Discuss on the different methods of synchronous cultures

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FACULTY OF SCIENCE
M.Sc. (CHEMISTRY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
INORGANIC CHEMISTRY - I
PAPER - I

Time: 3 Hours]

[Max. Marks: 80

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

- a) Improper axis of symmetry.
- b) Splitting of d-orbitals in trigonal planar complexes.
- c) Irving – William's order of metal complexes.
- d) 18 electron rule and its applications.

SECTION - B (4 X 15 = 60 Marks)**Answer ALL Questions****2. a) Explain the symmetry elements present in the following point groups**

- i) C_{nh} ii) C_{nv} iii) D_{nh} iv) D_{nd} v) C_s

- b) Write about centre of inversion and identity element.

OR

- c) What is plane of symmetry? Explain the types of plane of symmetry with suitable examples.
- d) Explain how the symmetry properties are useful to investigate the optical activity.

3. a) Outline the Gouys method of determining magnetic susceptibility of a paramagnetic system.

- b) Explain the relation between magnetic susceptibility and magnetic moment.

OR

- c) Explain the factors that influence the magnitude of crystal field splitting in octahedral complexes

- d) Define CFSE. Calculate CFSE in the following

- i) $HS d^4 Oh$ ii) $LS d^6 Oh$ c) $HS d^6 Oh$ d) $HS d^7 Oh$ d) $LS d^5 Td$

4. a) Describe the influence of chelate and cryptand effect on the stability of metal complexes.

- b) Write the applications of HSAB rule in predicting the stability of metal complexes.

OR

- c) What are ternary complexes? Explain the formation of ternary complexes with suitable examples

- d) Explain the determination of stability constant of a metal complex by spectrophotometric method

5. a) Explain the ligation properties of the CO with the help of MO diagram.

- b) Write about chemical fixation of dinitrogen molecule.

OR

- c) Describe the structural aspects of $[IrCl(PPh_3)_2(CO)(NO)]^+$ and $[RuCl(PPh_3)_2(NO)_2]^+$

- d) Explain the NO bonding modes in coordination chemistry.

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FACULTY OF SCIENCE
M. Sc (NUTRITION & DIETETICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
HUMAN NUTRITION
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write about energy value of foods.
- b Explain the physiology of lactation.
- c Explain growth charts for pre-schoolers.
- d Write about ergogenic aids.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the factors affecting energy requirements and BMR.

OR

- B Describe the basic five groups and nutritional requirements for adult man.

- 3 A Discuss the physiological changes and growth of foetus from conception till term.

OR

- B Justify the increase in thenutritional requirements during pregnancy and lactation.

- 4 A Discuss the factors to be considered while planning diet for school going children along with influence of television on eating habits of children.

OR

- B Describe the challenges faced by adolescents.

- 5 A Discuss the physiological changes occurring in aging along with nutritional requirements.

OR

- B Discuss the meal management pre, during and post event for athletes.

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FACULTY OF SCIENCE

M. Sc. (PHYSICS/ENGG. PHYSICS & INSTR.) I SEM (CBCS) EXAMINATIONS FEB 2024

MATHEMATICAL PHYSICS

PAPER - I

Time: 3 Hours]

[Max. Marks: 80

SECTION –A (4 X 5 = 20 Marks)

1. Answer ALL the following

- Express the Electrostatic potential between charges as series of Legendre polynomials.
- Show that $\beta(m, n) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$
- State and prove Cauchy theorem.
- Find the Fourier transform of $\frac{1}{x^2+a^2}$

SECTION –B (4 X 15 = 60 Marks)

- a) Solve Legendre differential equation by power series method.

(OR)

b) Prove that $J_{\frac{1}{2}}(x) = \sqrt{\frac{2}{\pi x}} \sin x$

- Derive the recurrence formulae for Hermite polynomials.

- a) Evaluate the using gamma functions i) $\int_0^1 \frac{dx}{\sqrt{(1-x^n)}}$ ii) $\int_0^\infty e^{-(x^2+\frac{a^2}{x^2})} dx$ iii) $\int_0^\infty \frac{x^3}{(1+x)^5} dx$

(OR)

- Define contravariant and covariant vectors.

- Discuss briefly tensors application in theory of elasticity.

- a) What is singularity and their classification?

- What is the Cauchy-Reimann conditions for a function $f(z)$ to be analytic?

(OR)

- Show that $\int_C \frac{e^{ikz}}{z} dz = 2\pi i$, where C is the unit circle $z = e^{i\theta}$ described from $\theta = -\pi$ to $\theta = \pi$, and k is any real constant.

- Expand the function $f(z) = \frac{1}{z(z-1)}$ in terms of Laurent series.

- a) Solve the differential equation $\frac{\partial^2 y}{\partial t^2} = v^2 \frac{\partial^2 u}{\partial x^2}$, $-\infty < x < \infty$ subject to the boundary condition $y(x, 0) = F(x)$, $\frac{\partial y}{\partial t} \Big|_{t=0} = 0$

(OR)

- Find the Laplace transform of Bessel function of zero order.

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FACULTY OF SCIENCE

M.Sc. (STATISTICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024

MATHEMATICAL ANALYSIS AND LINEAR ALGEBRA

PAPER – I

TIME: 3 HOURS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a If f is continuous on $[a, b]$ and if α is of bounded variation on $[a, b]$, then show that $f \in R(\alpha)$ on $[a, b]$.
- b If u, v, w are the roots of the cubic in λ and $(\lambda - x)^3 + (\lambda - y)^3 + (\lambda - z)^3 = 0$ then prove that
- $$\frac{\partial(u, v, w)}{\partial(x, y, z)} = -2 \frac{(y - z)(z - x)(x - y)}{(v - w)(w - u)(u - v)}$$
- c Define orthogonal basis and orthonormal basis. Illustrate with suitable example.
- d Define Moore-Penrose Generalized inverse of a matrix A and write its properties.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Assume that α increasing on $[a, b]$. If $f \in R(\alpha)$ on $[a, b]$, then $f^2 \in R(\alpha)$ on $[a, b]$

OR

- B Define Jacobian function of n variables. If $x^2 + y^2 + u^2 - v^2 = 0$ and $uv + xy = 0$, find the Jacobian of transformation and the derivatives x/y and $\partial u / \partial x, \partial v / \partial y$.

- 3 A State and prove the Cauchy-residue Theorem

OR

- B Define analytic function, Cauchy residue theorem, Taylor's theorem and Laurent's theorem

- 4 A If A^+ is the Moore Penrose inverse of a matrix A then show that

$$(i) (A^+)^+ = A \quad \text{and} \quad (ii) P(A) = P(A^+).$$

OR

- B A solution to the system $AX = b$ exists iff the rank of the coefficient matrix A is equal to the rank of the augmented matrix B .

- 5 A Show that the ranges of values of two congruent Quadratic Forms (Q.F's) are same.

OR

- B State and prove Cauchy-Schwartz and Hadamard inequalities for matrices.

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FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) I SEMESTER (CBCS R-24) EXAMINATIONS FEB 2024
MATHEMATICAL FOUNDATIONS FOR DATA SCIENCE
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write a short note on Vector Spaces.
- b Explain briefly about Determinants.
- c Write a short note on Characteristic roots and vectors.
- d Define Real Quadratic Forms.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about linear dependence and independence and spanning set.

OR

- B Explain in detail about Gram-Schmidt orthogonalization process.

- 3 A Write a detailed note on Gauss elimination.

OR

- B Explain in detail about Trace and Rank of a Matrix and their properties.

- 4 A Write a detailed note on Caley-Hamilton theorem.

OR

- B Discuss about Gauss-Jordan-LU decomposition and Singular Value Decomposition.

- 5 A Write a detailed note on Reduction and Classification of QFs.

OR

- B Explain in detail about Moore-Penrose and generalized inverses and their properties.

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FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) I SEM (CBCS R-22 NEW) EXAMINATIONS FEB 2024
ABSTRACT ALGEBRA - I
PAPER - I

TIME: 3 HRS]**[MAX. MARKS: 80**

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions.**

- a Let a be an element of even order. Prove that a^2 is not in $\text{cl}(a)$.
- b Find the non-isomorphic abelian groups of order 504.
- c Let A and B be ideals of a ring R such that $B \subseteq A$. Show that $R/A \cong \frac{R/B}{A/B}$.
- d Prove that the prime ideals of $\mathbb{Z} \langle p \rangle$ are the ideals $\langle p \rangle$ and $\{0\}$, where p is a prime.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions.

- 2 A State and prove fundamental theorem of finitely generated abelian groups.

OR

- B (i) State and prove Cayley's theorem.
(ii) Show that, in any group, the subset of all elements that have only a finite number of conjugates is a subgroup.

- 3 A State and prove the second and third Sylow theorems.

OR

- B (i) State and prove Cauchy's theorem for abelian groups.
(ii) Let G be a group of order pq , where p and q are prime numbers such that $p > q$ and q does not divide $(p-1)$. Show that G is cyclic.

- 4 A State and prove the correspondence theorem.

OR

- B (i) State and prove fundamental theorem of homomorphisms.
(ii) Find all ideals in \mathbb{Z} and also in $\mathbb{Z} \langle 10 \rangle$.

- 5 A (i) State and prove the Zorn's lemma.
(ii) Show that the sum of nil ideals A_1, A_2, \dots, A_n , in a commutative ring R , is a nil ideal.

OR

- B (i) Let R be a non-zero commutative ring with unity. Show that an ideal M is maximal if and only if R/M is a field.
(ii) Show that the ideal $\langle p, X \rangle$ is a maximal ideal of $R[X]$, where p be any prime number.

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FACULTY OF ARTS
M. A (TELUGU) I SEMESTER (CBCS NEW) EXAMINATIONS FEB 2024

ప్రాచీన సాహిత్య చరిత్ర అధ్యయనం -1

పేపర్ - I

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

- 1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి
 - ఎ జి.నాగయ్య
 - బి పురాణం
 - సి మార్గ దేశి కవితావలు
 - డి మల్లికార్జున పండితారాధ్యుడు
 - ఇ కావ్యలక్షణాలు

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

- 2 ఎ తెలుగు సాహిత్య విభజన అధ్యయన రీతులను చర్చించండి
లేదా
బి తెలుగు సాహిత్యకారునిగా పింగళి లక్ష్మీకాంతం పద్ధతిని వివరించండి
- 3 ఎ ఇతిహాస లక్షణాలను సోదాహరణంగా వివరించండి
లేదా
బి శతక లక్షణాలను సోదాహరణంగా చర్చించండి
- 4 ఎ నన్నయ కాలపు మత రాజకీయ పరిస్థితులను వివరించండి
లేదా
బి తిక్కన హరిహరనాథ తత్వాన్ని విశదీకరించండి
- 5 ఎ శివకవులలో పాల్కురికి సోమనాథుడి ప్రత్యేకతను వివరించండి
లేదా
బి భాగవతంలో పోతన భక్తి తత్వాన్ని వివరించండి
- 6 ఎ శ్రీనాథుని కవితా శైలిని అతని రచనల ఆధారంగా వివరించండి
లేదా
బి ఒక ప్రబంధం ఆధారంగా నాటి సామాజిక పరిస్థితులను చర్చించండి

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FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS R-23 NEW) EXAMINATIONS FEB 2024
HISTORY OF ENGLISH LANGUAGE AND ENGLISH IN INDIA
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Origin and Nature of Language
- B Write a short note on dialects of Old English?
- C What is Portmanteau?
- D What is Creole?
- E English as a link language

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Write an essay on Grimm's Law?

OR

B Write in detail on the Indo-European Language Family?

3 A Give an account on the grammar of Old English with examples?

OR

B What is the Great Vowel Shift? What is its importance in the history of the English Language?

4 A What are the features of Modern English? Explain with examples.

OR

B What are the various ways through which new words were formed in the process of word formation in English? Explain.

5 A What are the regional and ethical factors that influence the language? Explain.

OR

B Discuss Dialect as a Language variant?

6 A Discuss Macaulay's Minute with reference to the introduction of English in India?

OR

B Write an essay on the history of English language in Post-Independence Period?

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FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS-OLD) EXAMINATIONS FEB 2024
THE ENGLISH LANGUAGE: HISTORY, DESCRIPTION AND PRACTICE
PAPER – I (OLD)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Branches of Language families
- B Types of Simple Sentence
- C Influence of Latin on English Language
- D Slang
- E What is Functional Grammar?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Give an account of Spelling and Pronunciation in Old English?

OR

B What are the characteristics of Modern English? Explain.

3 A Discuss the impact of Greek on the English Language?

OR

B Write an essay on Word formation in English?

4 A What is Noun Phrase? Illustrate with examples?

OR

B Define Coordination and Subordination? Explain its implications on English Language?

5 A Write in detail on Standard dialect in English?

OR

B What is British English? How it is different from American English?

6 A What is Direct and Reported Speech? Illustrate with examples?

OR

b How do complain and apologize others? Explain with examples?

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FACULTY OF ARTS

M.A. (Urdu) I - Semester Examination (CBCS) FEB 2024

Paper - I پہلا پرچہ

Tareekh-e-Adab-e-Urdu (تاریخ ادب اردو ابتدا تا 1857ء)

Time : 3 Hours

Max. Marks : 80

Answer All the questions.

(حصہ الف)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے چار (4) نشانات ہیں۔ ہر جواب پندرہ (15) سطروں میں تحریر کیا جائے۔ (5 x 4 = 20)
- 1- وسطی ہند آریائی پر مختصر نوٹ لکھیے۔
 - 2- امیر خسرو کے اردو کلام پر اجمالی تبصرہ کیجیے۔
 - 3- بہمنی سلطنت کے قیام سے دکنی زبان کے ارتقا پر کیا اثر پڑا؟ واضح کیجیے۔
 - 4- میر انیس کی مرثیہ نگاری کے امتیازات نشان زد کیجیے۔
 - 5- میرامن کے ادبی کارناموں پر روشنی ڈالیے۔

(حصہ ب)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ (12) نشانات مختص ہیں۔ ہر سوال کا جواب چار (4) صفحات سے زیادہ نہ ہو۔ (5 x 12 = 60)
- 6- (A) جدید ہند آریائی کے ارتقا پر روشنی ڈالیے۔ (یا)
(B) اردو زبان کے آغازی نظریات کا تنقیدی جائزہ لیجیے۔
 - 7- (A) اردو زبان اور شاعری کے فروغ میں شمالی ہند کے صوفیاء کی خدمات پر روشنی ڈالیے۔ (یا)
(B) واضح کیجیے کہ حضرت امیر خسرو کو اردو شاعری کا بنیاد گزار کیوں کہا جاتا ہے؟
 - 8- (A) قطب شاہی عہد میں دکنی شعر و ادب کے ارتقا پر روشنی ڈالیے۔ (یا)
(B) ولی اور سراج اورنگ آبادی کے سوانحی حالات اور شاعری پر جامع تبصرہ کیجیے۔
 - 9- (A) غالب اور ان کے دو معاصر شعرا (شامل نصاب) کا تعارف کرائیے۔ (یا)
(B) دبستان لکھنؤ کی امتیازی خصوصیات کا جائزہ لیجیے۔
 - 10- (A) اردو نثر کے فروغ میں فورٹ ولیم کالج کی خدمات پر روشنی ڈالیے۔ (یا)
(B) فورٹ ولیم کالج کے باہر لکھی گئی داستانوں کا تعارف کرائیے۔

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FACULTY OF SOCIAL SCIENCES
MA (ECONOMICS) I SEMESTER (CBCS R-22 NEW) EXAMINATIONS FEB 2024
MICRO ECONOMICS – I
PAPER – I

Time: 3 Hrs]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- A. Income Effect
- B. Technical Progress
- C. Concept of market failure
- D. Bilateral monopoly
- E. Features of Oligopoly market

SECTION - B (5 X 12 = 60 Marks)
Answer ALL the Questions

2. a. Examine the Hicks version about income and substitution effects.

(OR)

- b. Analyze the consumer surplus in terms of indifference curves

3. a. Discuss the properties of Cobb-Douglas production function.

(OR)

- b. Critical analyse the modern theory of costs.

4. a. How does price and output determined in the short run and long run? Explain.

(OR)

- b. Explain the derivation of supply curve in perfect competition market.

5. a. How does price and output determined under monopolistic market in chamberlin's model.

(OR)

- b. Write a brief note on Monopsony Market.

6. a. Explain the Cournot model of Duopoly.

(OR)

- b. Discuss about Sweezy's model of Kinked Demand curve.

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FACULTY OF SOCIAL SCIENCES
M.A (ECONOMICS) I SEMESTER (CBCS OLD) EXAMINATIONS FEB 2024
MICRO ECONOMICS – I (OLD)
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a What is Compensated Demand Curve?
 - b Define the Isoquant Production Function.
 - c What do you mean by perfect competition?
 - d What is Monopsony?
 - e Write a short note on Stackelberg Models.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain the Consumer surplus and its implications.

OR

- B Write about the Revealed Preference Analysis.

- 3 A Examine the Cobb Douglas production function.

OR

- B Analyse the Modern theory of Costs.

- 4 A Write about the Features of perfect competition.

OR

- B Describe the Short Run and Long run equilibrium of the firm and industry.

- 5 A Write a note on Price discrimination under monopoly.

OR

- B Explain the Chamberlain's Monopolistic Competition.

- 6 A Examine the Characteristics of Oligopoly.

OR

- B Write about the Models of cartels and price leadership.

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FACULTY OF SOCIAL SCIENCES
M. A (SOCIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
PRINCIPLES OF SOCIOLOGY
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Define Sociology
- b Agrarian Society
- c Family
- d Socialization
- e Deviance

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Define Sociology and explain its significance in understanding human society. Discuss its relationship with other social sciences

OR

- B What is Theory ? Examine Structural Functionalism in detail

- 3 A Describe society and discuss its nature, characteristics, and functions. Explore the theories of societal evolution and explain how societies transition over time.

OR

- B How do you describe Urban Society ?explain its significant features.

- 4 A Analyze the significance of religion in society, examining its functions in providing meaning, social cohesion, and moral guidance.

OR

- B Examine the dynamics of power, authority, and legitimacy in political systems

- 5 A Evaluate the role of education as a social institution in shaping individual development and societal progress.

OR

- B What is political socialization in shaping citizens' attitudes and behaviors towards the state.

- 6 A Explain the concept of social stratification and mobility, focusing on forms such as caste, class, gender, and estate.

OR

- B Explore different perspectives on social change, such as evolutionary theory, conflict theory, and modernization theory

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FACULTY OF ARTS AND SOCIAL SCIENCES
MSW I SEMESTER (CBCS NEW) EXAMINATIONS FEB 2024
SOCIAL WORK PROFESSION, PHILOSOPHY AND IDEOLOGY
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Social Service
- b Voluntary action
- c Social Welfare
- d Social Action
- e Psyatric social work

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Discuss the religious base of social work in India.

OR

B Give an overview of historical development of Professional Social Work in India and US.

3 A Write in detail about the traditional different approaches in India towards the persons in need.

OR

B Describe the nature and scope of voluntary organisations in India.

4 A Give an over view of the Bhakti and Sufi movements in India.

OR

B What was the major contributions of the social reformers in India during 19th century.

5 A Discuss in detail about the practice of Social Work in family and child welfare setting.

OR

B Explain how a social work can contribute to the community development.

6. A Define and Discuss about Industrial Social Work

OR

B Explain the field of social Work Practice in India with examples.

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FACULTY OF COMMERCE
M.Com. (ALL STREAMS) I SEMESTER (CBCS R-23 NEW & OLD) EXAMINATIONS FEB 2024
MANAGERIAL ECONOMICS

PAPER - II

Time: 3 Hours]

[Max. Marks: 80

SECTION - A (5 X 4 = 20 Marks)

1. Answer all the questions

- a) Micro economics v/s Macro economics.
- b) Demand Function.
- c) Cobb Douglas Production function.
- d) What is Dual pricing?
- e) Define Plant.

SECTION B – (Marks: 5 X 12 = 60)

Answer ALL Questions

- 2. a) What is Managerial Economics? Explain Nature and scope of Managerial economics.
(OR)
b) Explain in detail about the applications of Micro Economics?
- 3. a) What Price Elasticity of Demand ? Explain various types of price elasticity of Demand.
(OR)
b) Explain assumptions and exemptions to the Law of Supply.
- 4. a) What is Law of variable proportion? Explain it with suitable example.
(OR)
b) Describe the behaviour of costs AFC, AVC, ATC and MC in Short run.
- 5. a) What is Monopoly? Explain characteristics, Price and output determination under Monopoly market.
(OR)
b) What is Monopolistic competition? Explain Price and output determination under Monopolistic competition.
- 6. a) Briefly explain the concepts of Firm, Industry and state various types of Industries
(OR)
b) What is Profit policy? Explain Forecasting methods of Profit policy.

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FACULTY OF SCIENCE
MSC (BOTANY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
MYCOLOGY AND MICROBIOLOGY
PAPER - II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Parasexual cycle
- B Spore dispersal in *Pilobolus*
- C Plasmids
- D Purification of viruses

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 A Explain the detailed account on sexual reproduction in different groups of fungi.

OR

- B Explain the concept of mechanisms of nuclear and extra nuclear inheritance.

- 3 A Give a detailed account on life cycles of Ascomycota prescribed.

OR

- B Explain the general characteristics and life cycle of Oomycota.

- 4 A Describe the ultrastructure of bacterial cell and biochemistry of cell wall.

OR

- B Explain the nutrition and growth factors required for bacteria.

- 5 A Explain the isolation, detection and characterization of viruses.

OR

- B Describe the general characters and disease transmission by phytoplasma.

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FACULTY OF SCIENCE
MSc (COMPUTER SCIENCE) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
OPERATING SYSTEMS
PAPER - II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a What is a Computer-System Architecture?
- b Write a short note on CPU Scheduling.
- c Explain briefly about Memory Management.
- d Write a short note on File Systems.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A What is Operating-System Structure? Explain in detail about Operating-System Operations and Process Management.

OR

- B What is Inter-Process Communication? Give Examples. Also explain in detail about Communication in Client-Server Systems.

- 3 A Discuss in detail various Scheduling Algorithms.

OR

- B Write a detailed note on various methods for Handling Deadlocks.

- 4 A Discuss in detail about following:
a) Swapping b) Disk Structure c) Paging.

OR

- B What is Disk Management? Explain RAID Structure with neat diagram.

- 5 A Discuss in detail about Access Methods and File-System Structure and Implementation.

OR

- B i) List out Principles of Protection.
ii) Discuss about System Threats and System and Network Threats.

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FACULTY OF SCIENCE
M. Sc (FOOD SCIE & TECH) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
FOOD MICROBIOLOGY
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain the terms antagonism and synergism.
- b Classify foods with ease of spoilage with help of examples.
- c Explain the term food borne infections with examples.
- d What are pre- and post-cultures.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Briefly explain different factors effecting the growth of microorganisms.

OR

- B Discuss the biochemical changes occurring during fermentation and lipolysis

- 3 A Describe the chemical changes caused by microorganisms in foods.

OR

- B Briefly explain contamination and spoilage caused by microorganisms in milk and milk products.

- 4 A Discuss in detail the microbial toxins.

OR

- B Describe the physical and thermal methods used to control microorganisms.

- 5 A Describe cell immobilization and its applications.

OR

- B Discuss the production of microbial proteins and microbial vitamins with examples.

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FACULTY OF SCIENCE
M. Sc (ZOOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
TOOLS AND TECHNIQUES IN BIOLOGY
PAPER - II

TIME: 3 HRS]

MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Principle of Chromatography
 - b Phase contrast Microscope
 - c Metabolic capacities of animal cell
 - d Autoradiography

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Write the principle involved in analytical and preparative Centrifugation.

OR

- B Write the principle involved in analytical and preparative Centrifugation.

- 3 A What is Microscopy. Explain the Working principle and applications of TEM in detail.

OR

- B Write the history, principle and protocols of Cryoultramicrotomy.

- 4 A Give an account on history and development of cell cultures system.

OR

- B Write about various cell lines and their uses.

- 5 A Write the description and application of GM counter.

OR

- B Explain the principle and applications of Biosensors.

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FACULTY OF SCIENCE
M. SC (MICROBIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
VIROLOGY
PAPER – II

TIME: 3 HRS]**[MAX. MARKS: 80****SECTION - A (4 X 5 = 20 Marks)****1 Answer ALL Questions**

- A Plant Viruses
- B T2 Bacteriophage
- C Antiviral agents
- D CaMV 35 S promoter

SECTION – B (4 X 15 = 60 Marks)**Answer ALL Questions****2 A Describe viral classification and its classification.****OR****B Write critical notes on (i) Animal viruses, (ii) Metagenomics.****3 A Explain virus replication strategies.****OR****B Write notes on (i) Clathrin coated pits, (ii) Adenovirus.****4 A Define Interferons & Explain its classification.****OR****B Write critical notes on Tumor virus & Recombination in phages.****5 A Explain about viral vector for cloning & sequencing.****OR****B Write about Lambda phage & M13 significance.****★★★★**

FACULTY OF SCIENCE
MSc (CHEMISTRY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
ORGANIC CHEMISTRY - I
PAPER - II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain Dynamic Enantiomerism with examples
- b Explain the Benzyne mechanism
- c Write a note on Fries Rearrangement.
- d Write any two synthesis methods for Acridine

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 a Write a note on CIP rules for R/S-nomenclature of organic molecules
- b Explain about simple axis of symmetry and plane of symmetry

OR

- c Write the configuration determination methods for aldoximes and ketoximes
 - d Discuss about E, Z Nomenclature with examples.
- 3 a Explain the stereochemical outcome and orientation in E2 eliminations
 - b Discuss the Pyrolytic syn eliminations in Esters

OR

- c Explain the concept of NGP with examples
 - d Predict the Mechanism of S_N2 (Ar) reaction
- 4 a Write a note on Hoffman rearrangement with examples.
 - b Write the Beckmann rearrangement with examples.

OR

- c Discuss the Favorskii Rearrangement with examples.
 - d Explain the Pinacol - Pinacolone rearrangement with examples.
- 5 a Write the synthesis and reactivity of Indole
 - b Discuss the synthesis of Camphor

OR

- c Discuss any two synthetic methods of Coumarin.
- d Explain the various methods of structure determination of terpenes.

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FACULTY OF SCIENCE
M. Sc (NUTRITION & DIETETICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
NUTRITIONAL BIOCHEMISTRY - I
PAPER - II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

Answer ALL the questions

- a Write about glycogen storage disease.
- b Write the functions of protein.
- c Explain about phenylketonuria.
- d Explain about Gout.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Give a brief account on (i)glycogenesis (ii) gluconeogenesis

OR

- B Describe pentose phosphate pathway.

- 3 A Describe the classification of amino acids along with examples and functions of amino acids.

OR

- B Discuss the digestion and absorption of proteins.

- 4 A Describe in detail the urea cycle.

OR

- B Discuss the metabolism of methionine.

- 5 A Describe the protein synthesis.

OR

- B Describe the synthesis of pyrimidines.

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FACULTY OF SCIENCE
M.SC. (ENGG. PHYSICS AND INSTR. & PHYSICS) I SEM (CBCS) EXAMINATIONS FEB 2024
CLASSICAL MECHANICS
PAPER – II

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1) Answer ALL the following

- (a) Write a note on generalized momentum and cyclic coordinates
- (b) Define Poisson brackets and show that $[J_x, J_y] = J_z$
- (c) Discuss Stable, Unstable and Neutral Equilibrium with example.
- (d) Establish Hamilton Jacobi equation.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL the questions

- 2) (a) What is D'Alembert's principle? Derive Lagrange's equation of motion from D'Alembert's principle for a conservative system.

(OR)

 (b) What are velocity dependent forces? Derive Lagrangian expression for a charged particle in an electromagnetic field.
- 3) (a) Derive Hamilton's canonical equations of motion. Obtain Hamilton Equations of motion for a particle moving in central force field

(OR)

 (b) Define Canonical transformations and obtain the transformation equations corresponding to all possible generating functions.
- 4) (a) What are Euler's angles and obtain expression for complete transformation matrix from space set of axis to body set of axis for a rigid body.

(OR)

 (b) Discuss the force free motion of a symmetric top and obtain expression for its frequency
- 5. (a) Deduce time independent Hamilton-Jacobi equation [5 M]
 (b) Solve Harmonic Oscillator problem by Hamilton-Jacobi method [10 M]

(OR)

 (c) What are Action-Angle variables? Discuss the method of Action – Angle variables for obtaining the frequency of periodic motion

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FACULTY OF SCIENCE

M.Sc. (STATISTICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024

PROBABILITY THEORY

PAPER - II

TIME: 3 HOURS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1

Answer ALL the questions

- a Write any four applications on the usage of Monotone Convergence Theorem in the Statistical theory.
- b Stating Chebychev's inequality, write any four of its applications.
- c Let $\{X_n, n \geq 1\}$ be a sequence of random variables with $P[X_n = n] = 1/n^2$ & $P[X_n = 0] = 1 - (1/n^2)$. Examine whether it holds convergence in probability and distribution.
- d State Lindberg-Levy Central Limit Theorem. Write its importance.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2

- a (i) State the properties of Measurable sets and Measurable functions
- (ii) State Caratheodary Extinction theorem and write its applications.

OR

- b The set of discontinuities of any cumulative distribution function is at most countable.

3

- a State and prove Minkowski's inequality and write any four of its applications and how it is related to any other inequality?

OR

- b (i) If $\phi(t) = \exp\{it\mu - \frac{1}{2}t^2\sigma^2\}$ is the characteristic function then obtain its probability function.
- (ii) Examine whether $\phi(t) = (1+t^4)^{-1}$ is a characteristic function or not?

4

- a Let $\{X_n, n \geq 1\}$ be the sequence of random variables with $P[X_n = 0] = 1 - \frac{1}{n}$ and $P[X_n = \frac{1}{n}] = \frac{1}{n}$. Examine the modes of convergence almost sure, probability and quadratic mean for the sequence it satisfies.

OR

- b State and prove Khintchine's WLLN and write any two of its applications.

5

- a State and Prove Liapunov's Central Limit Theorem. Illustrate it with an example.

OR

- b (i) Let $\{X_n, n \geq 1\}$ be an independent sequence of random variables follows $U[-n, n]$. Examine whether the sequence holds Central Limit Theorem?

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FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) I SEMESTER (CBCS R-24) EXAMINATIONS FEB 2024
DESIGN AND ANALYSIS OF ALGORITHMS
PAPER - II

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Write a short note on Performance Analysis.
 - b Explain briefly about Greedy Method.
 - c Write a short note on Back Tracking technique.
 - d What is NP-Hard Problem?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail various Elementary Data Structures.
- OR**
- B Discuss the implementation of Merge Sort with an example.
- 3 A Discuss in detail the solution to Single Source Shortest Paths (Dijkstra's) with an example.
- OR**
- B Discuss in detail about Optimal Binary Search Trees.
- 4 A Explain the solution to 8-Queens problem using Back Tracking technique.
- OR**
- B Discuss in detail about Connected Components and Spanning Trees.
- 5 A Discuss in detail various Graph Problems.
- OR**
- B Explain in detail about NP-Hard Scheduling Problems.

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FACULTY OF SCIENCE**M.Sc. (MATHEMATICS) I SEM (CBCS R-22 NEW) EXAMINATIONS FEB 2024****MATHEMATICAL ANALYSIS - I****PAPER – II****TIME: 3 HRS]****[MAX. MARKS: 80****SECTION-A (4 X 5 =20 Marks)****1 Answer ALL the questions.**

- a Define metric space. Is $d : X \times X \rightarrow \mathbf{R}$ defined by $d(x, y) = (x - y)^2$ a metric on X ?
- b Let f and g be complex continuous functions on a metric space X . Then show that $f+g$, $f.g$ are continuous on X .
- c Is the function $f : [0, 1] \rightarrow \mathbf{R}$ defined by $f(x) = \begin{cases} 0, & 0 \leq x \leq 1/2 \\ 1, & 1/2 \leq x \leq 1 \end{cases}$ a Riemann-Stieltjes integral?
- d Prove that every uniformly convergent sequence of bounded functions is uniformly bounded.

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

- 2 A Prove or disprove the following:
A subset E of the real line \mathbf{R} is connected if and only if $x \in E$, $y \in E$ and $x < z < y$, then $z \in E$.

OR

- B Prove that every k -cell is compact.

- 3 A Let f be a continuous mapping of a compact metric space X into a metric space Y . Then prove or disprove that f is uniformly continuous on X .

OR

- B (i) What is meant by discontinuous function? Explain types of discontinuities.
(ii) Let f be a monotonically increasing on (a, b) . Then show that the set of points (a, b) at which f is discontinuous is at most countable. [5+10 = 15 Marks]

- 4 A Prove the following:
 $f \in \mathbf{R}(\alpha)$ on $[a, b]$ if and only if for every $\varepsilon > 0$ there exists a partition P such that $U(P, f, \alpha) - L(P, f, \alpha) < \varepsilon$.

OR

- B Assume α increases monotonically and $\alpha' \in \mathbf{R}(\alpha)$ on $[a, b]$. Let f be a bounded real function on $[a, b]$. Then, prove or disprove that $f \in \mathbf{R}(\alpha)$ if and only if $f\alpha' \in \mathbf{R}(\alpha)$.

- 5 A Suppose $f_n \rightarrow f$ uniformly on a set E in a metric space. Let x be a limit point of E , and suppose that $\lim_{t \rightarrow x} f_n(t) = A_n$ ($n = 1, 2, 3, \dots$). Then prove that $\{A_n\}$ converges, and $\lim_{t \rightarrow x} f(t) = \lim_{n \rightarrow \infty} A_n$.

OR

- B Suppose $\{f_n\}$ is a sequence of functions, differentiable on $[a, b]$ and such that $\{f_n(x_0)\}$ converges for some point x_0 on $[a, b]$. If $\{f'_n\}$ converges uniformly on $[a, b]$, then prove that $\{f_n\}$ converges uniformly on $[a, b]$, to a function f , and

$$f'(x) = \lim_{n \rightarrow \infty} f'_n(x) \quad (a \leq x \leq b).$$

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FACULTY OF ARTS
M.A (TELUGU) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
సంప్రదాయ కవిత్వం -1

పేపర్ - II

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

- ఎ అక్షరరమ్యత
- బి తిక్కన
- సి సావిత్రి
- డి ముగ్ధ భక్తి
- ఇ పోతన భక్తి కవిత

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ ఆంధ్రమహాభారత అవతారిక రచనారీతిని చర్చించండి

లేదా

బి ఆంధ్రమహాభారత అవతారికలోని మహాభారత ప్రశస్తిని వివరించండి

3 ఎ మీపాఠ్యం ఆధారంగా తిక్కన నాటకీయ రచనా శైలిని వివరించండి

లేదా

బి పాండవుల అజ్ఞాత వాస రీతిని సోదాహరణంగా చర్చించండి

4 ఎ సావిత్రి కథ పరమార్థాన్ని వివరించండి

లేదా

బి సావిత్రి కథ ఆధారంగా ఎర్రన రచనారీతిని విశదీకరించండి

5 ఎ శివభక్తులలో బెజ్జమహాదేవి ప్రత్యేకతను వివరించండి

లేదా

బి బెజ్జమహాదేవి కథ ఆధారంగా సోమన దేశి రచనారీతిని వివరించండి

6 ఎ పోతన కవితా దృక్పథాన్ని మీ పాఠ్యాంశం ఆధారంగా వివరించండి

లేదా

బి పోతన భాగవతావతరణ రీతిని చర్చించండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS R-23 NEW) EXAMINATIONS FEB 2024
ENGLISH LITERATURE FROM CHAUCER TO BACON
PAPER - II

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 the Age of Chaucer?
- B Sketch the character of the Wife of Bath?
- C Discuss the role of good angel and bad angel in *Dr Faustus*?
- D Write a short note on the Murder of Gonzago in *Hamlet*?
- E How does Bacon distinguish philosophical truth from the civil truth in his essay '*Of Truth*'?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

2 A Write an essay on English Renaissance?

OR

B Write in detail on Elizabethan Age?

3 A Discuss Chaucer's *The Prolouge to Canterbury Tales* as 'a veritable picture-gallery'?

OR

B What are the epic-devices used by John Milton in John Milton's *Paradise Lost* Book I? Explain.

4 A Write an essay on use of animal imagery in Benjohnson's *Volpone*?

OR

B Discuss *Dr Faustus* as a morality play?

5 A Write an essay on the soliloquies in Shakespeare's *Hamlet*?

OR

B *Julius Caesar* is a play about statehood and leadership? Discuss.

6 A "Some books are to be tasted, others to be swallowed and some to be chewed and digested." Explain.

OR

B Write a critical appreciation of John Donne's '*A Valediction Forbidden Mourning*'?

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS-OLD) EXAMINATIONS FEB 2024
ENGLISH POETRY
PAPER – II (OLD)

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 Answer ALL the following questions

- A Reformation
- B Metaphysical Conceit
- C Write a short note on William Blake's *London*?
- D Write a short note on theme of the poem *Self-Dependence* by Mathew Arnold?
- E What is the significance of The Fire Sermon in *The Waste Land*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

- 2 A What effects did the Renaissance have on English Literature? Explain.

OR

 B Write an essay on Modernism?
- 3 A Write an essay on the use of realism in Chaucer's *The Prolouge to Canterbury Tales*?

OR

 B John Donne's contribution to metaphysical poetry which has earned him the title of metaphysical poet? Discuss.
- 4 A Consider *Songs of Expression* as William Blake's expression of despair in the poems prescribed for your study?

OR

 B Attempt a critical appreciation of William Wordsworth's *Tintern Abbey*?
- 5 A Write an essay on the main theme of Elizabeth Barrett Browning's *How do I love thee*?

OR

 B Critically analyse Mathew Arnold's *Dover Beach*?
- 6 A What are Eliot's thematic concerns in the poem *The Waste Land*? Discuss.

OR

 B What is the central idea of the poem *Originality* by Carol Ann Duffy? Explain.

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FACULTY OF ARTS

M.A. (Urdu) I - Semester Examination (CBCS) FEB 2024

Paper - II دوسرا پرچہ

Masnavi (مثنوی)

Time : 3 Hours

Max. Marks : 80

Answer All the questions.

(حصہ الف)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے چار (4) نشانات ہیں۔ ہر جواب پندرہ (15) سطروں میں تحریر کیا جائے۔ (5 x 4 = 20)
- 1- مثنوی کے لغوی معنی اور اصطلاحی مفہوم کی وضاحت کیجیے اور اس کی اقسام پر روشنی ڈالیے۔
 - 2- مثنوی ”مقدم راؤ پدم راؤ“ کی اہمیت واضح کیجیے۔
 - 3- میر حسن کے سوانحی حالات بیان کیجیے۔
 - 4- دیانت کر نسیم کے ادبی کارناموں کا تعارف کرایئے۔
 - 5- نواب مرزا شوق کے بارے میں اپنی معلومات قلم بند کیجیے۔

(حصہ ب)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ (12) نشانات مختص ہیں۔ ہر سوال کا جواب چار (4) صفحات سے زیادہ نہ ہو۔ (5 x 12 = 60)
- 6- (A) صنف مثنوی کے فنی اور تکنیکی پہلوؤں کی وضاحت کیجیے۔ (یا)
(B) مثنوی کے بارے میں حالی و شبلی کے خیالات کا جائزہ لیجیے۔
 - 7- (A) عادل شاہی دور میں دکنی مثنوی کے فروغ پر روشنی ڈالیے۔ (یا)
(B) شمالی ہند میں مثنوی کی روایت کا اجمالی جائزہ لیجیے۔
 - 8- (A) اردو مثنوی کی تاریخ میں میر حسن کے مقام کا تعین کیجیے۔ (یا)
(B) مثنوی ”سحرالبیان“ کے فنی خصائص کی وضاحت کیجیے۔
 - 9- (A) مثنوی ”گلزار نسیم“ کے پلاٹ کا تنقیدی جائزہ لیجیے۔ (یا)
(B) ”گلزار نسیم“ کی اہمیت کے اسباب بیان کیجیے۔
 - 10- (A) نواب مرزا شوق کی مثنوی نگاری کا تنقیدی محاکمہ کیجیے۔ (یا)
(B) مثنوی ”زہر عشق“ کے فنی محاسن و معائب پر اظہار خیال کیجیے۔

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FACULTY OF SOCIAL SCIENCES
MA (ECONOMICS) I SEMESTER (CBCS R-22 NEW) EXAMINATIONS FEB 2024
MACRO ECONOMIC ANALYSIS – I
PAPER – II

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a) Balance of Payments
- b) Marginal Propensity Consume
- c) Secondary Market
- d) Money Multiplier
- e) Speculative Demand for Money

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

2. a. Explain the circular flow of income in a four sector model with diagrams.

(OR)

- b. What is mean by social accounting? Discuss its importance.

3. a. Discuss the implications of Kenye's psychological law of consumption function.

(OR)

- b. Examine the relative income hypothesis of consumption.

4. a. Explain the distinguish between of MEC and MEI.

(OR)

- b. Explain the profit theory of investment.

5. a. Discuss the Monetary Transmission Mechanism in India.

(OR)

- b. Explain the relationship between budget deficits and money supply.

6. a. Describe the Irving Fisher's quantity theory of money.

(OR)

- b. Critically examine the classical approach to demand for money.

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FACULTY OF SOCIAL SCIENCES
M.A (ECONOMICS) I SEMESTER (CBCS OLD) EXAMINATIONS FEB 2024
MACRO ECONOMICS – I (OLD)
PAPER - II

TIME: 3 HRS]

[MAX.MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a What is social accounting?
 - b Define the Consumption function.
 - c What do you mean by secondary markets?
 - d What is High powered money?
 - e Write a short note on Demand for money India.

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Explain the Circular Flow of Income in two, three and four-sector economy.

OR

- B Write about the different forms of national income accounting.

- 3 A Examine the Keynes psychological law of consumption.

OR

- B Analyse the permanent and life cycle income hypotheses and their reconciliation.

- 4 A Write about the long run and short run MEI and level of investment.

OR

- B Describe the Financial theory of investment Institutions and capital market in India.

- 5 A Write a note on theories of money supply.

OR

- B Explain the Analysis and variations in money supply in India.

- 6 A Examine the Classical approach to demand for money.

OR

- B Write about the Keynes liquidity preference approach.

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FACULTY OF SOCIAL SCIENCES
MA (SOCIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
CLASSICAL SOCIOLOGICAL THEORIES
PAPER - I

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Types of Sociological Theories
- b Circulation of Power Elite
- c Concept of Alienation
- d Divion of Labour
- e Weber's Ideal Types

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A Present the evolution of social and sociological theories from contemplation to theory

OR

- B Examine Auguste Comte's contributions to the subject matter of sociology

- 3 A Discuss Herbert Spencer's theory of organicism and social Darwinism

OR

- B Evaluate Thorstein Veblen's institutional economics and his critique of conspicuous consumption

- 4 A How does surplus value contribute to the perpetuation of class inequality? Explain

OR

- B Sketch Karl Marx's theory of dialectical and historical materialism.

- 5 A Analyse Emile Durkheim's theory of social facts and its significance in the study of society

OR

- B Write a detailed note on types of suicides as mentioned by Durkheim.

- 6 A Examine Weber's Protestant Ethic thesis and its implications for the rise of capitalism.

OR

- B Evaluate Weber's typology of social action and its relevance for understanding social structure and function.

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FACULTY OF SOCIAL SCIENCES
M. S. W I SEMESTER (CBCS NEW) EXAMINATIONS FEB 2024
SOCIAL CASE WORK
PAPER - II

TIME:3 HRS]

[MAX.MARKS:80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Case work
- b Psycho social problems
- c Social Advocate
- d Role of Therapist
- e Review of Case work

SECTION - B (4 X 15 =60 Marks)

Answer ALL questions

2 A Explain the steps in Social Case Work process.

OR

B What are the values and principles associated with working with individuals?

3 A Discuss with suitable examples about the models of helping individuals.

OR

B What is the difference between psycho analytical and psycho social theories?

4 A Discuss about the ways to enhance effective communication.

OR

B Explain the importance of interview method in social case work.

5 A Discuss the role of worker-client relationship in dealing a Case.

OR

B Write of about the steps involved in in recording a social case work.

6 A Describe the process of application of Social case work in schools and hospitals.

OR

B What are the skills and techniques to be used in case work?

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FACULTY OF COMMERCE
M.COM (ALL COURSES) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
CORPORATE FINANCIAL ACCOUNTING
PAPER - III

Time: 3 Hrs]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)**1. Answer ALL Questions**

- What are the characteristics of Goodwill?
- What is Amalgamation?
- Current Purchasing Power Accounting
- Differentiate between cum interest and ex-interest transactions
- Human Resource Accounting

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

2. A) Explain the Legal Provisions Relating to Company Final Accounts.

OR

- B) Ascertain the value of Goodwill of XYZ. Ltd. carrying on business as retail traders from the following information according to capitalisation method:

Liabilities and Assets as on 31st December, 2013

Liabilities	Amount	Assets	Amount
Paid-up Capital:	2,60,000	Goodwill	35,000
2,600 Shares of Rs. 100 each			
Surplus Account	66,650	Land and Buildings	1,20,000
Bank overdraft	68,350	Plant & Machinery	1,10,000
Creditors	1,00,500	Closing Stock	1,60,000
Provision for Taxation	29,500	Sundry Debtors	1,00,000
	5,75,000		5,75,000

The company commenced operations in 2009 with a paid up capital as aforesaid of Rs. 2,60,000. The profits earned, before providing for taxation, have been as: 2009 Rs. 71,000, 2010 Rs. 74,000, 2011 Rs. 71,500, 2012 Rs. 98,000, 2013 Rs. 95,000.

You may assume that income tax at the rate of 50% has been payable on these profits. The average dividend paid by the company for the four years is 10% which is taken as reasonable return expected on the capital invested in the business.

3. A) Explain the difference between pooling of interests method and purchase Method of accounting for amalgamation.

OR

- B) The A Ltd. and B Ltd., whose business are of similar nature, decided to amalgamate and the new company the C Ltd., is formed to take over their respective Assets and Liabilities. The following are their respective Balance Sheets:

Liabilities	A Ltd.	B. Ltd	Assets	A Ltd.	B. Ltd
7,500 Shares of Rs. 10 each	75,000	---	Furniture	30,000	20,000
4,550 shares of Rs. 10 each	---	45,500	Freehold Property	20,000	--
Bills Payable	1,000	---	Plant and Machinery	8,300	21,550
Sundry Creditors	2,300	2,000	Stock	6000	3,450
General Reserve	3,200	2,500	Sundry Debtors	17,500	6,000
	1,800	2,000	Cash at Bank	1,500	1,000
	83,300	52,000		83,300	52,000

Assuming that assets realised at their book values, pass the necessary journal entries in the books of the A. Ltd. and B. Ltd.

4. A) What do you mean by Inflation Accounting? Give its Advantages and Disadvantages.

OR

- B) The information given below relates to monetary accounts of Sony Ltd. Compute the general price level gain or loss.

	As on 01-01-2020	As on 31-12-2024
Monetary Assets	80,000	1,00,000
Monetary Liabilities	1,00,000	1,00,000
Retail Price Index	200	300
Average Index for the Year		240

5. A) Define Leasing. Explain different types of leases.

OR

- B) Suresh Ltd. Furnishes the following details relating to his holding in 7% Government Securities.

- 1-1-2023 opening balance of securities face value Rs. 60,000 (Rs.100 each) and cost Rs. 69,000
- 1-3-2023, 1000 units purchased at Rs. 98 each
- 1-7-2023, sold 2000 units at Rs. 100 each
- 1-10-2023 purchased 500 units at Rs.98 each
- 1-11-2023 sold 2000 units at Rs. 99 each
- Interest is payable on 30th June and 31st Dec.
- Prepare investment account for the year ending 31-12-2023. Face value of each security is Rs. 100.

6. A) What is Double Account System of maintaining accounts? Explain the salient features of it.

OR

- B) From the following information ascertain the capital base of ABC Electricity Co.

Cost of Intangible Assets	Rs. 85,000
Loan from State Electricity board	Rs.1,60,000
Cost of Fixed Assets	Rs. 10,50,000
Amount written off on account of depreciation	Rs.2,80,000
Balance in consumer benefit reserve	Rs.1,30,000
Debentures	Rs.1,00,000
Balance in development reserve	Rs.60,000
Security deposit of customers	Rs.60,000
Investment against contingency reserve	Rs.1,55,000
Original cost of WIP	Rs.70,000
Monthly average of current assets	Rs.1,00,000
Balance of tariff and dividend control reserve	Rs. 50,000
Cost of service lines contributed by customers	Rs. 50,000

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FACULTY OF SCIENCE
MSC (BOTANY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
BRYOPHYTA AND PTERIDOPHYTA
PAPER – III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Marchantia gemma cups
- B Economic importance of bryophytes
- C *Selaginella*
- D Geological cycle

SECTION - B (4 X 15 = 60 Marks)

Answer ALL Questions

2 A What are the different classifications of Bryophyta?

OR

B Discuss on the structure and reproduction of *Anthoceros*

3 A Describe the structure and evolution of gametophyte of bryophytes

OR

B Write about fossilization and types of plant fossils

4 A Write about the different classifications of Pteridophytes

OR

B Explain the structure and reproduction of *Adiantum* with suitable diagrams

5 A Explain the various aspects of Telome Theory

OR

B Describe the origin and evolution of early vascular plants

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FACULTY OF SCIENCE
MSc (COMPUTER SCIENCE) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
JAVA PROGRAMMING
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 Answer ALL the questions

- a Explain briefly the Paradigms of Programming Languages.
- b Discuss briefly about Classes and Objects.
- c What is a Package? Explain its Syntax.
- d Write a brief note on Multithreading.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A** What is Object Oriented Programming? Explain in detail the Benefits and Applications of OOPs.

OR

- B** What is a JVM? Discuss in detail various Data types and Operators in Java.

- 3 A** What are Constructors? Explain in detail various types of Constructors and with a java program implement Constructor Overloading.

OR

- B** What is Polymorphism? Explain the Use of Final keyword with a Java program.

- 4 A** What is an Interface? Write a java program to demonstrate using Extends and Implements together.

OR

- B** What is an Exception? Discuss in detail the types of Exceptions and Handling of Exceptions.

- 5 A** Explain in detail about Inter Thread Communication with an example program.

OR

- B** i) Explain in detail about Streams and Stream Classes.
ii) Discuss about String Buffer Class and Methods in detail.

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FACULTY OF SCIENCE
M. Sc (FOOD SCI & TECH) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
TECHNOLOGY OF CEREALS, LEGUMES AND OIL SEEDS
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write about SEM process of rice milling.
- b Explain types and grading of wheat.
- c Write the industrial applications of corn syrups.
- d Write about different types of millet along with their health benefits.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss the methods of enrichment of rice with nutrients.

OR

- B Briefly explain the rice milling operations.

- 3 A Discuss the general principles and machine operations involved during milling of wheat.

OR

- B Describe the utilization of byproducts of wheat milling.

- 4 A Discuss the general principles and machine operations involved during dry milling of corn.

OR

- B Describe briefly the processing methods of legumes.

- 5 A Discuss the processing of oilseeds as vegetable milk like using one example.

OR

- B Describe the process for preparation of vegetable protein isolate.

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FACULTY OF SCIENCE
M. Sc (ZOOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
ANIMAL PHYSIOLOGY AND ETHOLOGY
PAPER - III

TIME: 3 HRS

MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Respiratory Acidosis and Alkalosis
- b Henley's loop significance.
- c Fundamentals of Nerve impulse
- d Foraging and Predation

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Write the fundamental aspects of digestion and absorption of food.

OR

B Explain the types of respiratory pigments and transport of respiratory gaseous.

3 A Describe physiology of heart beat and diseases associated with heart,

OR

B Write about the formation of excretory products and physiology of excretion.

4 A Write the types of Synapses and mechanism of synaptic transmission.

OR

B Explain about muscle proteins and sliding filament theory.

5 A What are Pheromones? Add a note on evolution of communication in insects.

OR

B Explain in detail about social behaviour in insects

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FACULTY OF SCIENCE
M. Sc (MICROBIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
RESEARCH METHODOLOGY & TECHNIQUES
PAPER – III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL Questions**
- A Colourimetry
 - B HPLC
 - C ANOVA
 - D IPR

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 A Explain the different types of Mass spectrometry.

OR

- B Describe principles and applications of electrophoretic techniques studied.

- 3 A Explain the significance of Dialysis & Intermediary metabolism.

OR

- B Write an essay on Radioisotopes detection and measurement of its activity.

- 4 A Explain the significance of central tendencies and dispersion with suitable examples.

OR

- B Write about Chi-square test and statistical tools for experimental designs.

- 5 A Give introduction to computers & its disk operating systems.

OR

- B Write critical notes on (i) Manuscript preparation, (ii) Research ethics.

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FACULTY OF SCIENCE
MSc (CHEMISTRY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
PHYSICAL CHEMISTRY - I
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Derive an equation for temperature dependence of equilibrium constant. Mention its applications.
- b What is Liquid Junction Potential? Derive an expression of it.
- c Give a brief note on Eigen functions and Eigen values.
- d Explain the transition state theory of reaction rates.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 a
 - i) Derive the expression $dP/dT = L/T(V_2 - V_1)$. Discuss its applications. At 100 °C the rate of increase of vapour pressure of steam is 27.1 mm Hg per Celsius degree, and a gram of steam occupies 1674 cm³. What is the specific latent heat of vaporization?
 - ii) State and explain third law of thermodynamics.

OR

 - b Establish Maxwell's thermodynamical relation and use them to obtain the two Tds equation.
- 3 a
 - i) Describe the Debye-Huckel theory of electrolytic solutions. Give its limitations.
 - ii) How do you measure pH of a solution using glass electrode.

OR

 - b Deduce the Debye-Huckel-Onsagar equation. Explain its validity and limitations.
- 4 a Deduce the Schrodinger wave equation for particle in one dimensional box.

OR

 - b
 - i) Explain the postulates of quantum mechanics.
 - ii) What is orthogonality? Explain the orthogonal nature of the Eigen values of Hermitian operator.
- 5 a
 - i) State and explain the Lindemann's theory of unimolecular reactions.
 - ii) Discuss the steady state treatment of chain reactions with suitable example.

OR

 - b Explain the following equations with suitable examples.
 - i) Hammett equation
 - ii) Taft equation
 - iii) Edward equation

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FACULTY OF SCIENCE
MSc (NUTRITION & DIETETICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
HUMAN PHYSIOLOGY
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain the inorganic constituents of urine.
- b Explain COPD.
- c Write the functions of plasma proteins.
- d Explain the mechanism of action of hormones.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A Discuss the role of enzymes in digestion.

OR

- B Describe in detail the urine formation.

- 3 A Give a brief account on (i)blood brain barrier. (ii)high altitude sickness.

OR

- B Give a brief account on (i)structure of nerve cell. (ii)Alzheimer's disease.

- 4 A Describe in detail the composition of blood.

OR

- B Discuss the blood lipids in detail.

- 5 A What are the hormones secreted by pituitary glands, write their functions along with their abnormalities.

OR

- B Give a brief account on (i)structure of ovaries. (ii)functions of testosterone.

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FACULTY OF SCIENCE
M. Sc. (PHYSICS/ENGG.PHYSICS & INSTR.) I SEM (CBCS) EXAMINATIONS FEB 2024
SOLIDSTATE PHYSICS
PAPER - III

Time: 3 Hours]

[Max. Marks: 80

SECTION – A ($4 \times 5 = 20$ Marks)

1. Answer ALL the following

- a. Define the terms Lattice, Crystal and name the seven crystal systems.
- b. Write a short note on inelastic scattering of neutrons by phonons
- c. List out the failures of free electron theory of metals.
- d. Write a short note on Curie-Weiss law?

SECTION –B ($15 \times 4 = 60$ Marks)

Answer ALL Questions

2. a) Derive the Braggs law of X-ray diffraction.
 b) What is Ewald sphere construction in reciprocal lattice and Braggs law in vector form?

(OR)

 c) Discuss the preparation and applications of carbon nano materials.
3. a) What are acoustical and optical branch of phonon dispersion relations? Derive expressions for it.

(OR)

 b) What is the difference between the Einstein and Debye theory of specific heat discuss in detail?
4. a) What is Bloch's theorem of motion of electrons in periodic potential?
 b) Define metals, insulators and semiconductors in the context of Kronig-Penny model.

(OR)

 c) What is effective mass and its significance?
 d) Hall effect in semiconductors.
5. a) Obtain the expression for paramagnetic susceptibility by quantum treatment and hence calculate the effective number of Bohr magnetons(μ_B) for Ho^{3+} , Eu^{3+} and Fe^{2+} , Ni^{2+} .

(OR)

 b) What is temperature dependence of saturation magnetization below Curie temperature?
 c) Discuss in detail i) ferromagnetic domains ii) Anisotropy energy and iii) Transition between domains.

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FACULTY OF SCIENCE
M.Sc. (STATISTICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
DISTRIBUTION THEORY
PAPER – III

TIME: 3 HOURS]

[MAX. MARKS: 80

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

- a Write the statistical importance of Cauchy distribution.
- b What is a compound distribution and write its use?
- c Write the need of study and applications of Non-central sampling distributions.
- d What asymptotic distribution of order statistics. Write any four of its applications.

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

- 2 a Obtain the moment generating function of Lognormal distribution if exists. If not show that it does not exist?

OR

- b Obtain its characteristic function of Weibull distribution with two parameters. Hence obtain its mean and variance?

- 3 a If X follows $B(n, p)$ where the 'n' is a random variable follows $Poisson(\lambda)$, then obtain the distribution of X ?

OR

- b Show that the marginal distribution derived from Bivariate normal distribution is normal?

- 4 a Derive the distribution of noncentral Chi-square distribution? State its properties.

OR

- b If X and Y are any two random variables follows Chi-square distribution with n_1 and n_2 d.f. then obtain the distribution of X/Y .

- 5 a State and prove the Fisher-Cochran theorem for the distribution of quadratic forms.

OR

- b Derive the distribution of minimum and maximum order statistics and obtain the distribution of Rang $(X_{(n)} - X_{(1)})$.

★★★★★

FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) I SEMESTER (CBCS R-24) EXAMINATIONS FEB 2024
SOFTWARE ENGINEERING
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Explain briefly the Nature of Software.
 - b List out the Core Principles of Modeling.
 - c Write a short note on Quality Management.
 - d Discuss briefly about SCM Process.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Define Agility. Explain in detail about Agile Process and Extreme Programming.

OR

- B Design A Generic Process Model and define a Framework Activity.

- 3 A Discuss in detail about Identifying Analysis Classes, Specifying Attributes & Defining Operations in Software Engineering.

OR

- B Explain in detail about Design within the Context of SE, Design Process & Design Concepts.

- 4 A Define Software Quality. Explain in detail about Software Quality Dilemma and Achieving Software Quality.

OR

- B Define SQA. Explain in detail the SQA Tasks, Goals, and Metrics.

- 5 A Discuss in detail about Product Metrics for Requirements Model, Design Model, Source Code and Testing and Maintenance.

OR

- B What is Software Reengineering? Discuss in detail about Reverse Engineering and Forward Engineering.

★★★★★

FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) I SEM (CBCS R-22 NEW) EXAMINATIONS FEB 2024
DISCRETE MATHEMATICS
PAPER - III

TIME: 3 HRS]**[MAX. MARKS: 80**

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions.**

- a Verify the De-Morgan's laws using truth tables.
- b Find the number of arrangements of letters in the word TALLAHASSEE.
- c Solve the Tower of Hanoi recurrence relation $a_n = 2a_{n-1} + 1$ with $a_1 = 1, n \geq 2$.
- d Find the duals of $x(y + 0)$ and $x \cdot 1 + (y + z)$.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL the questions.

- 2 A Explain universal and existential quantifiers. Symbolize the following argument and check for its validity:
Lions are dangerous animals.
There are Lions.
Therefore, there are dangerous animals.

OR

- B Define tautology, contradiction and contingency. Using both the methods - truth table and logical equivalences, prove that $(p \wedge q) \rightarrow (p \vee q)$ is a tautology.

- 3 A In how many ways can we draw a heart or a spade from an ordinary deck of playing cards? A heart or an ace? An ace or a king? A card numbered 2 through 10? A numbered card or a king?

OR

- B If there are 200 faculty members that speak French, 50 that speak Russian, 100 that speak Spanish, 20 that speak French and Russian, 60 that speak French and Spanish, 35 that speak Russian and Spanish, while only 10 speak French, Russian, and Spanish, how many speak either French or Russian or Spanish?

- 4 A Solve $a_n - 9a_{n-1} + 20a_{n-2} = 0, n \geq 2$ and $a_0 = -3, a_1 = -10$, using method of generating function.

OR

- B Solve the recurrence relation $a_n + a_{n-1} - 5a_{n-2} + 3a_{n-3} = 0, n \geq 3$ with the initial conditions $a_0 = 0, a_1 = 1$ and $a_2 = 2$.

- 5 A Explain the difference between the basic logic gates. Construct circuits that produce the output $(x + y)\bar{x}$.

OR

- B Define conjunctive and disjunctive normal forms. Find the principal disjunctive normal form of $\sim P \vee Q$.

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FACULTY OF ARTS
M.A (TELUGU) I SEMESTER (CBCS) EXAMINATIONS FEB 2024

వ్యాకరణం - భాషాచరిత్ర - 1

పేపర్ - III

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

- 1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి
- ఎ ఆంధ్రభాషాభూషణం
 - బి కళలు, ద్రుత ప్రకృతికములు సంజ్ఞల వివరణ
 - సి నౌ నావయగు
 - డి తెలుగు
 - ఇ మనుమడు రూపసాధన

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

- 2 ఎ వ్యాకరణాన్ని నిర్వచించి రెండు తెలుగు వ్యాకరణ గ్రంథాలను పరిచయం చేయండి
- లేదా**
- బి తెలుగు వ్యాకరణ వ్యాఖ్యానాలు రెండు వ్యాఖ్యానాలను పరిచయం చేయండి
- 3 ఎ సంజ్ఞ పరిచ్ఛేదం లోసూరి చేసిన తెలుగుఅక్షరాలు, తెలుగు పదాల విభజనను వివరించండి
- లేదా**
- బి ద్వంద్వంబు పదంబు పయి పరుషములకు గనడదవలగు, ద్రుత ప్రకృతికము మీది పరుషములకు సరళములగు సూత్రాలను సోదాహరణంగా వ్యాఖ్యానించండి
- 4 ఎ అమన్నపుంసములకు అదంతములకు ము వర్ణకంబగు, ఇత్తుకు బహువచనంబు పరంబగునపుడు ఉత్పంబగు సూత్రాలను సోదాహరణంగా వ్యాఖ్యానించండి
- లేదా**
- బి ఆచ్చిక పరిచ్ఛేదం లోసూరి పేర్కొన్నబహువచన కార్యాలను విశదీకరించండి
- 5 ఎ ఆంధ్రము, తెనుగు , తెలుగు పదాల చరిత్రను వివరించండి
- లేదా**
- బి స్రాజ్ఞన్నయ కాలపు శాసన భాషా రీతిని వివరించండి
- 6 ఎ అన్యదేశ్యాలు ఏర్రడడడానికి గల కారణాలను వివరించండి
- లేదా**
- బి తెలుగులో ధ్వనివిపరిణామ రీతులను వివరించండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS R-23 NEW) EXAMINATIONS FEB 2024
NEO-CLASSICAL AGE
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Verisimilitude in Literature
- B Character of Belinda
- C Discuss the relationship between Man Friday and Robinson Crusoe?
- D What is the theme of the Spectator?
- E Write a short note on self-deception and hypocrisy in *The Country Wife*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

- 2 A What is Restoration? What are the features of Restoration Period?
OR
B Write an essay on the Age of Johnson?
- 3 A Discuss the mock-heroic elements in Alexander Pope's *The Rape of the Lock*?
OR
B Write an essay on satirical portraits in John Dryden's *Absalom and Achitophel*?
- 4 A Discuss Daniel Defoe's *Robinson Crusoe* as a picaresque novel?
OR
B Comment on Swift's use of irony in *Gulliver's Travels*?
- 5 A Write a critical analyses of Richard Steele's *The Tatler*?
OR
B Write an essay on the theme of Sheridan's *The Rivals*?
- 6 A Justify the title *The Country Wife*?
OR
B Sketch the character of Charles Marlow in *She Stoops to Conquer*?

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FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS-OLD) EXAMINATIONS FEB 2024
ENGLISH DRAMA
PAPER- III

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Tragedy
- B Write a short note on the symbolic dimension in *King Lear*?
- C Write a short note on the carnival setting in *The Rover* by Aphra Behn?
- D Describe Jimmy and Alison's relationship in *Look Back in Anger*?
- E How is rasa defined in Indian Ink?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

- 2 A Write an essay on the role and development of British Drama?
OR
B Write an essay on Shakespearean's Tragedy?
- 3 A Discuss *Dr Faustus* as a Moral Tragedy?
OR
B Discuss the significance of Prospero's role in *The Tempest*?
- 4 A How does Oscar Wilde mock Victorian Society in *The Importance of Being Earnest*?
OR
B Write an essay on the theme of religion in G B Shaw's *Saint Joan*?
- 5 A Discuss *Look back in Anger* as a Psychological play?
OR
B Write an essay on the theme of Caryl Churchill's *Top Girls*?
- 6 A Discuss Synge's *Riders to the Sea* as a one-act play?
OR
B Harold Pinter claim about communication's frightening nature in *The Dumb Water*? Explain.

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FACULTY OF ARTS

M.A. (Urdu) I - Semester Examination (CBCS) FEB 2024

Paper - III تیسرا پرچہ

Dastaan (داستان)

Time : 3 Hours

Max. Marks : 80

Answer All the questions.

(حصہ الف)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے چار (4) نشانات ہیں۔ ہر جواب پندرہ (15) سطروں میں تحریر کیا جائے۔ (5 x 4 = 20)
- 1- داستان میں سادہ اور پیچیدہ پلاٹ کی وضاحت کیجیے۔
 - 2- طلسم ہوشربا کے بارے میں اپنی معلومات قلم بند کیجیے۔
 - 3- میرامن کے حالات زندگی پر روشنی ڈالیے۔
 - 4- وجہی کی تصانیف کا تعارف کرایئے۔
 - 5- سرور کی ادبی خدمات پر مختصر نوٹ تحریر کیجیے۔

(حصہ ب)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ (12) نشانات مختص ہیں۔ ہر سوال کا جواب چار (4) صفحات سے زیادہ نہ ہو۔ (5 x 12 = 60)
- 6- (A) ”سب رس“ کے پلاٹ کا خلاصہ تحریر کیجیے۔ (یا)
(B) ”سب رس“ کی ادبی اور فنی خوبیوں کا تجزیہ کیجیے۔
 - 7- (A) ”باغ و بہار“ میں مذکور بصرہ کی شہزادی کی روداد قلم بند کیجیے۔ (یا)
(B) اردو داستانوں میں ”باغ و بہار“ کے مقام کا تعین کیجیے۔
 - 8- (A) داستانوں کی مقبولیت میں فورٹ ولیم کالج کی خدمات پر روشنی ڈالیے۔ (یا)
(B) دکنی داستانوں پر اظہار خیال کیجیے۔
 - 9- (A) ”فسانہ عجائب“ کے اہم کرداروں کا تعارف کرایئے۔ (یا)
(B) سرور کی داستان نگاری کا تنقیدی محاسبہ کیجیے۔
 - 10- (A) داستان کے فن اور تکنیک کی وضاحت کیجیے۔ (یا)
(B) داستان کے عروج و زوال کے اسباب پر روشنی ڈالیے۔

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FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) I SEMESTER (CBCS R-22 NEW) EXAMINATIONS FEB 2024
QUANTITATIVE METHODS - I
PAPER – III

TIME: 3 HRS]

[MAX. MARKS: 80

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

- a Interpretation of revenue
- b Multivariable functions
- c Quartile deviation
- d Standard error
- e Pasche's index

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

2 A Briefly explain the uses of mathematics in economics

ORB Find the differentiation of $x^2y^3 + 2xy + y + 2 = 0$ 3 A Find the maximum and minimum values of $Y=x^3-3x-1$ and of $Y=3x^4-10x^3+6x^2+5$.**OR**

B Write not on the concept of production function and examine the different types of production functions

4 A Explain the various methods of data collection

OR

B From the following frequency distribution find out the value of median

Size	0-10	10-20	20-30	30-40	43-50
F	3	5	8	4	2

5 A Explain the significance of regression analysis. Distinguish between correlation and regression.

OR

B Calculate Karl Pearson's coefficient of correlation between expenditure on advertising and sales from the data given below.

Advertising expenses (X)	39	65	62	90	82	75	25	98	36	78
Sales (Y)	47	53	58	86	62	68	60	91	51	84

6 A Explain the term "Index Numbers" why index numbers are called economic barometers.

OR

B From the following data, compute price index by using weighted average of price relatives method using (i) Arithmetic mean, and (ii) Geometric Mean

Commodity	Base year price (Rs)	Base Year Quantity	Current Year Price (Rs)
Sugar	10	5kg	15
Wheat	9	20kg	12
Milk	6	2 litres	12

★★★★★

FACULTY OF SOCIAL SCIENCES
M.A (SOCIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
RESEARCH METHODOLOGY, SOCIAL STATS & COMPUTER APPLICATION
PAPER - III

TIME: 3 HRS]

[MAX. MARKS: 80

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

- a Social research
- b Steps in Social Research
- c Tools of Data Collection
- d Data Collection
- e Hypothesis

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

- 2 A Discuss the significance of Sociology as a science, elucidating the application of the scientific method in social research.

OR

- B Compare and contrast quantitative and qualitative research methods, highlighting their strengths and weaknesses.

- 3 A Define the term "sampling techniques" in Social Research. Describe the characteristics of a good sample and discuss the criteria for determining sample size.

OR

- B Discuss the importance of selecting the appropriate research design based on the research objectives and questions.

- 4 A Differentiate between probability and non-probability sampling methods. Provide examples of each method.

OR

- B Explain the concept of a case study in Social Research. Provide examples of research questions using this method.

- 5 A Explain the concept of Ethnography and its application in Social Research. Discuss the advantages of using Ethnographic methods for studying social phenomena.

OR

- B Describe the process of conducting a focus group study in social research. Discuss the advantages of using focus groups as a method of data collection.

- 6 A Define ANOVA and MANOVA. Discuss the difference between these two tests and provide examples of research questions

OR

- B Explain the purpose of research report writing in social research. Discuss the intended audience, format, and tone/style of research reports.

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FACULTY OF SOCIAL SCIENCES
M.S.W I SEMESTER (CBCS NEW) EXAMINATIONS FEB 2024
SOCIAL POLICY AND PLANNING
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

- 1 **Answer ALL the questions**
- a Concept of Social Policy
 - b Sectorial policy
 - c Women and Children
 - d Composition of Planning Commission
 - e Social Justice

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A What is the relationship between social policy and social development?
- OR**
- B Briefly explain values underlying social policy.
- 3 A Explain the process of social policy formulation
- OR**
- B Discuss the contribution of research and role of interest groups in social policy.
- 4 A Discuss the evaluation of social policy in India
- OR**
- B What do you about National Education Policy-2020.
- 5 A Briefly explain concept of social and development planning in India
- OR**
- B Describe the implementation of social planning at various levels
- 6 A Explain the contribution of five year plans in the development of Schedule Caste
- OR**
- B Describe the development measures taken by government for the Backward classes

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FACULTY OF COMMERCE**M.COM (ALL COURSES) I SEMESTER (CBCS NEW & OLD) EXAMINATIONS FEB 2024****FINANCIAL MANAGEMENT****PAPER - IV****Time: 3 Hrs]****[Max. Marks: 80****SECTION – A (5 X 4 = 20 Marks)****1. Answer ALL Questions**

- Write a note on profit maximization of finance.
- What do you understand by “Discounting”?
- What is cash cycle?
- What is capital rationing?
- What is MM hypothesis?

SECTION – B (5 X 12 = 60 Marks)**Answer ALL Questions**

- What do you mean by Financial Management? Discuss the approaches to finance function.

OR

 - What is Time value of money? Explain how it is helpful in capital budget.Explain.

- Define capital structure? Discuss the important factors that should be considered while determining capital.

OR

- M/s. Harihara company is expected an EBIT of Rs. 1,00,000 whose equity capitalization rate (K_e) is 12.5 per cent. Currently company has a debt capital of Rs.4,00,000 at 8 per cent. Calculate the value of the firm (V) and cost of capital (K_o).

Case (1) When company increase debt by Rs. 2,00,000 uses proceeds to repurchase equity shares.

Case (2) When company reduces debt to Rs. 2,00,000 by uses equity shares, of the same amount.

- Briefly discuss the techniques of capital budgeting with their merits and demerits.

OR

- Red field Ltd., Bombay, has to make a choice between three possible investments project A, B and C. The immediate capital outlays for each being Rs.1,10,000. Each will continue for 5 years and it has been decided that a discount rate of 12 per cent acceptable for all the proposals. The cash flows for three projects are as follows:

Year	Projects		
1	10,000	20,000	30,000
2	20,000	30,000	40,000
3	30,000	50,000	35,000
4	40,000	30,000	25,000
5	50,000	20,000	20,000

Which project would you recommend and why? Use the following evaluating techniques.

(Contd.....)

5. A) Cash budgeting is the principal tool of cash management. Discuss.

OR

- B) From the following information of ABC Ltd., estimate the working capital needed to finance a level of activity of 1,10,000 units of production after adding a 10 percent safety contingency.

Particulars	Cost per unit (Rs.)
Raw Materials	78
Direct labour	29
Overheads (excluding depreciation)	58
Total Cost	165
Profit	24
Selling Price	189

Additional Information:

Average raw materials in stock: One Month

Average Materials-in-progress (50% completion stage): Half a month

Average finished goods in stock: One month

Credit allowed by suppliers: One month

Credit allowed to customers: Two months

Time lag in payment of wages: one and half weeks

Overhead expenses: One month

6. A) Critically explain Walter's relevance theory of dividends.

OR

- B) From the following information of Sai Co. Ltd. Calculate Company Share value as per Gordon's Model.

Earnings per share Rs. 10

Cost of capital = 15 per cent

Rate of return on investment (r) 16 per cent (b) 15 per cent © 14 per cent

	i	ii	iii	iv	v	vi
Dividend payment Ratio (1-b)	10	20	30	40	50	80
Retention Ratio	90	80	70	60	50	20

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FACULTY OF SCIENCE
MSC (BOTANY) ISEMESTER (CBCS) EXAMINATIONS FEB 2024
TAXONOMY OF ANGIOSPERMS AND MEDICINAL PLANTS
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Principles of Hutchinson system of classification
- B Concept of species
- C Compare the inflorescence of malvaceae and sterculiaceae
- D Origin of plant in medicine

SECTION – B (4 X 15 = 60 Marks)

Answer ALL Questions

- 2 A Give a critical account on phylogenetic systems prescribed.

OR

- B Explain the detailed account on taxonomic evidence and techniques.

- 3 A Write a detailed account on salient features of botanical nomenclature and ICBN concept.

OR

- B Describe the concept and categories of biosystematics.

- 4 A Give a comparative study on Apocynaceae and Asclepiadaceae and their treatment in recent systems.

OR

- B Describe in detail the inflorescence and detailed floral structure of Lamiaceae.

- 5 A Describe the morphology, active principles and medicinal value of *Andrographispaniculata*.

OR

- B Explain the morphology, active principles and medicinal value of *Phyllanthusemblica*.

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FACULTY OF SCIENCE
MSc (COMPUTER SCIENCE) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
SOFTWARE ENGINEERING
PAPER - IV

TIME: 3 HRS]**[MAX. MARKS: 80**

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain the Nature of Software.
- b List out Core Principles of Modeling.
- c What is Quality management?
- d Define SCM process.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Explain in detail about Changing Nature of Software and describe about Software Engineering Practice.

OR

- B Describe A generic Process Model and Discuss about Prescriptive Process Models.

- 3 A i) Discuss in detail about Associations and Dependencies
 ii) Write a detailed note on Design within the context of SE.

OR

- B What is Software Architecture? Discuss in detail about Architectural Styles and Considerations.

- 4 A Discuss in detail the following:
 a) Software Quality Dilemma b) Security Assurance c) SQA Tasks.

OR

- B Discuss a Strategic Approach to Software Testing in detail and explain about Test Validation testing.

- 5 A i) Explain in detail the Product Metrics for Requirements Model.
 ii) Discuss in detail about W5HH Principle.

OR

- B Discuss in detail about the following:
 a) Source Code b) Design Model c) Software Reengineering.

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FACULTY OF SCIENCE
M. Sc (FOOD SCI & TECH) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
FERMENTED FOODS & BEVERAGE TECHNOLOGY
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Explain types of fermentation.
- b Explain the classification of beverages with examples.
- c Write about the isotonic and sports drinks.
- d What are distilled spirits explain.

SECTION – B (4 X 15 = 60 Marks)

Answer ALL questions

2 A Give a brief account on (i) sauerkraut (ii) soya sauce

OR

B Give a brief account on (i) olive pickles (ii) tempeh

3 A Discuss detail the methods of water treatment.

OR

B Give a brief account on (i) BIS quality standards for bottled water (ii) quality evaluation of raw and processed water.

4 A Discuss the manufacturing process of fruit beverages.

OR

B Describe the role of various ingredients of soft drinks.

5 A Discuss the role of yeast in technology of brewing process.

OR

B Describe the manufacturing process for fermented beverages.

★★★★★

FACULTY OF SCIENCE
M. Sc (ZOOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
GENETICS AND EVOLUTION
PAPER - IV

TIME: 3 HRS

MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

- 1 **Answer ALL the questions**
- a Cytological basis of Crossing over
 - b Hardy Weinberg law
 - c Molecular clock.
 - d Eugenics importance.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Define Epistasis. Write about extra chromosomal inheritance in detail.

OR

- B Illustrate the Chromosomal aberrations with reference to structural and numerical changes.

- 3 A Explain the various aspects of Genetic structures in populations.

OR

- B Describe the DNA level Genetic variations caused in natural populations.

- 4 A Write detailed patterns and modes of Substitutions.

OR

- B What are chemical mutagens? Add a note on Induce mutations in human.

- 5 A Explain about Darwinism and Neo Darwinism with examples.

OR

- B Write the origin of uni and multicellular animals in detail.

★★★★★

FACULTY OF SCIENCE
M. Sc (MICROBIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
MICROBIAL BIOCHEMISTRY
PAPER – IV

TIME: 3 HRS]**[MAX. MARKS: 80**

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL Questions**

- A Determination of pH
- B Nucleotides
- C Enzyme nomenclature
- D Competitive and non – competitive inhibition

SECTION - B (4 X 15 = 60 Marks)

Answer ALL Questions

2 A Explain all the steps of TCA Cycle. Add a note on its regulation

OR

B Explain biological redox systems and biological oxidation

3 A Explain the different sugar derivatives (deoxy sugars, amino sugars, sugar acids)

OR

B Write a detailed account on the major steroids of biological importance

4 A Write on the structure, confirmation and properties of proteins

OR

B Discuss on enzyme properties as well as its kinetics

5 A What are the methods for increased microbial enzyme production? Add a note on enzyme engineering

OR

B Explain the methods of regulation of enzyme activity. Add a note on isoenzymes

★★★★★

FACULTY OF SCIENCE
MSc (CHEMISTRY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
ANALYTICAL TECHNIQUES AND SPECTROSCOPY - I
PAPER - IV

Time: 3 Hours]

[Max. Marks: 80

SECTION - A (4 X 5 = 20 Marks)

I. Answer the following

- a) Explain the principle involved in Chromatography.
- b) Classify the molecules based on the moment of Inertia.
- c) Explain Stokes and Anti-stokes lines.
- d) What are equivalent and non equivalent protons in NMR Spectroscopy?

SECTION - B (4 X 15 = 60 Marks)

Answer ALL Questions

2. a) Explain the principle of Gas Chromatography and mention various detectors used in GC.
- b) Explain GC analysis of hydrocarbons of a mixture.

OR

- c) Describe the principle and instrumentation of HPLC.
 - d) Write a note on differential migration rates and partition ratio.
3. a) How bond length of a diatomic molecule can be obtained from its rotational spectrum? Explain.
 - b) The reduced mass of CO is 1.38×10^{-23} gm. If its rotational constant is 1.92 cm^{-1} , calculate the bond distance.

OR

- c) What is finger print region in IR? Write a note on Fermi Resonance with an example.
 - d) Describe the applications of IR Spectroscopy.
4. a) Write a note on complementary nature of IR and Raman Spectra.
 - b) Explain Woodward Fieser rules for the Homoannular and Heteroannular dienes with examples.

OR

- c) Discuss the applications of Beer Lambert's law to the dissociation constant of weak acid.
 - d) Define Chromophore and Auxochrome. Explain various types of electronic transitions in molecules.
5. a) What is Chemical Shift? Explain the factors influencing the Chemical Shift.
 - b) Sketch NMR Spectra of Ethyl alcohol and Anisole.

OR

- c) Explain applications of ^1H NMR to determine hydrogen bonding and deuterium exchange reactions.
- d) Write a note on Nuclear Overhauser Effect.

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FACULTY OF SCIENCE
M. Sc (NUTRITION & DIETETICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
PRINCIPLES OF DIETETICS
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write about SGA.
- b Explain the complications of parenteral nutrition.
- c Explain the dietary management for celiac disease.
- d What are NSAIDS explain.

SECTION-B(4 X 15 =60 Marks)

Answer ALL questions

- 2 A Describe the role of dietitian in a hospital.

OR

- B Describe the modification of normal diet along with types of hospital diets.

- 3 A Briefly discuss the short term and long-term feeding methods.

OR

- B Discuss the nutritional care in pre and post operative conditions.

- 4 A Discuss in detail the treatment and dietary management for patients suffering from gastritis.

OR

- B Give a brief account on (i)dietary management for patients suffering from diarrhoea
(ii)aetiology and symptoms of ulcerative colitis.

- 5 A Describe the metabolic changes, dietary management for fevers of short duration with reference to typhoid.

OR

- B Describe the effect of food on drug therapy.

★★★★★

FACULTY OF SCIENCE
MSC (ENGG. PHYSICS & INSTR. AND PHYSICS) I SEM (CBCS) EXAMINATIONS, FEB 2024
ELECTRONIC DEVICES AND CIRCUITS
PAPER - IV

TIME: 3 HRS]**[MAX.MARKS: 80****SECTION - A (4 X 5 = 20 Marks)**

1 **Answer ALL the questions**

- a Write a Brief Note on Solar Cell?
- b Briefly explain about zener diode voltage regulator?
- c What is Darlington Pair? Explain.
- d What is Barkhausen Criterion? Explain..

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about FET construction and Its V-I characteristics.

OR

- B Explain the Construction and V-I Characteristics of UJT.

- 3 A Discuss the Emitter-feedback bias and Explain about the stabilization against variation of V_{BE} for self-bias circuit?

OR

- B Explain in Detail about different types of IC Voltage regulators.

- 4 A Discuss about the Working principle and Frequency Response of RC Coupled Amplifier with neat circuit diagram

OR

- B Describe the working of class B and push pull amplifiers and Explain the harmonic distortion.

- 5 A Explain the Construction and Working of Colpit's and Hartley Oscillators

OR

- B Draw the circuit diagram of Astable multivibrator and explain its operation. Derive an expression for its frequency of oscillation?

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FACULTY OF SCIENCE
M.Sc. (STATISTICS) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
ESTIMATION THEORY
PAPER – IV

TIME:3 HRS]

[MAX.MARKS:80

SECTION - A (4 X 5 =20 Marks)

1 **Answer All the questions**

- a State and prove the necessary and sufficient condition for the consistent estimator?
- b Obtain the bias in estimation of variance in Jackknife method of estimation?
- c State the properties of CAN and BAN estimators?
- d Define one sample U-statistic. Establish that the sample mean is one sample U-statistic

SECTION-B(4 X 15 =60 Marks)

Answer All questions

- 2 a State and prove Cramer-Rao inequality by stating regularity conditions.

OR

- b (i) Let x_1, x_2, \dots, x_n be an i.i.d. random sample of size n drawn from the population with density $f(x, \theta) = \theta e^{-\theta x}, 0 < x < \infty$ and $\theta > 0$ then the sufficient statistic for θ ?
- (ii) How can you obtain the UMVUE for θ for the given density $f(x, \theta)$?

- 3 a Let x_1, x_2, \dots, x_n be an independent random sample of size 'n' drawn from one parameter exponential family of distribution with density function $f(x, \theta)$ where $x, \theta \in \mathbb{R}$, can be expressed in the exponential form then estimate the mean and variance of the distribution?

OR

- b Describe bootstrap method of estimation. Illustrate the method to estimate bias?

- 4 a (i) Let x_1, x_2, \dots, x_n be an independent random sample of size n drawn from exponential distribution with density $f(x, a, b) = \frac{1}{b} e^{-\frac{x-a}{b}}$ then obtain the maximum likelihood estimator for b ?
- (ii) State and prove any two properties of maximum likelihood estimator?

OR

- b Show that maximum likelihood estimator of θ in $f(x, \theta)$ is consistent and asymptotically normal estimator.

- 5 a Explain the confidence interval of the parameters of Normal distribution.

OR

- b Obtain the confidence interval for estimation of parameter θ of Poisson distribution.

★★★★★

FACULTY OF SCIENCE
M. Sc (DATA SCIENCE) I SEMESTER (CBCS R-24) EXAMINATIONS FEB 2024
JAVA PROGRAMMING
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 = 20 Marks)

1 **Answer ALL the questions**

- a Write a short note on AWT Class Hierarchy.
- b Explain briefly about Server-Side Java.
- c Discuss about JDBC Drivers.
- d Write a short note on JNDI.

SECTION - B (4 X 15 = 60 Marks)

Answer ALL questions

- 2 A Discuss in detail about Event Handling and Dialog Boxes with a sample program.

OR

- B What is RMI? Explain with an example program.

- 3 A Explain the Life Cycle of a Servlet and discuss about Http Servlet and GenericServlet.

OR

- B Define JSP. Explain in detail about JSP Engines and explain how JSP Works.

- 4 A Define JDBC. Explain how a Connection is made to Database and SQL Statements are executed with an example.

OR

- B What is Hibernate? Demonstrate Writing a Hibernate Application, Compiling and Running Application.

- 5 A Write a detailed note on JSF.

OR

- B What are Java beans? Explain in detail about Advantages of Java Beans and its Properties.

★★★★★

FACULTY OF SCIENCE**M.Sc. (MATHEMATICS) I SEM (CBCS R-22NEW) EXAMINATIONS FEB 2024
ORDINARY DIFFERENTIAL EQUATIONS AND SPECIAL FUNCTIONS
PAPER - IV****TIME: 3 HRS]****[MAX. MARKS: 80****SECTION - A (4 X 5 = 20 Marks)****1 Answer ALL the questions.**

- a Classify the ordinary points, regular singular points, and irregular singular points of the differential equation $e^x y'' + 2y' - xy = 0$.
- b Prove that $P'_n(-1) = (-1)^n \frac{n(n+1)}{2}$.
- c Show that $\beta(p, q) = \beta(p+1, q) + \beta(p, q+1)$.
- d Find the Hermite Polynomials of order 2, and 4.

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

- 2 A Find the general solution of $y'' + (x-3)y' + y = 0$ about $x = 2$.

OR

- B Obtain two linearly independent solutions for $2x^2 y'' - xy' + (x-5)y = 0$ about $x = 0$, by using Frobenius method.

- 3 A Derive Rodrigue's Formula for Legendre's differential equation

OR

- B Prove that $\int_{-1}^1 P_n(x)(1-2xt+t^2)^{-1/2} dx = \frac{2t^n}{2n+1}$, where n is a positive integer.

- 4 A If λ_i and λ_j are the roots of the equation $J_n(a\lambda) = 0$, then show that

$$\int_0^a x J_n(\lambda_i x) J_n(\lambda_j x) dx = \begin{cases} 0, & i \neq j \\ \frac{a^2}{2} J_{n+1}^2(\lambda_i a), & i = j \end{cases}$$

OR

- B Prove that $\int_0^\infty e^{-ax} x^{n-1} dx = \frac{\Gamma(n)}{a^n}$, where a and n are positive.

- 5 A Show that the Hermite polynomials are orthogonal over $(-\infty, \infty)$ with respect to the weight function e^{-x^2} .

OR

- B Derive the generating function for Hermite polynomial $H_n(x)$ and then generate the Rodrigue's Formula.

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FACULTY OF ARTS
M.A (TELUGU) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
సంస్కృతం - I
పేపర్ - IV

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

- ఎ చతుర్వేదాలు
- బి పురాణ లక్షణాల వివరణ
- సి బాణుడు
- డి అజమహారాజు
- ఇ హరి శబ్దం

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ సంస్కృత భాషా వైశిష్ట్యాన్ని వివరించండి

లేదా

బి వేదాంగాల ఆవశ్యకతను చర్చించండి

3 ఎ ఇతిహాసలక్షణాలను సోదాహరణంగా వివరించండి

లేదా

బి గద్య కావ్య లక్షణాలను సోదాహరణంగా వివరించండి

4 ఎ వాల్మీకి రామాయణ విశిష్టతను వివరించండి

లేదా

బి శ్రీహర్షుని నైషధ కావ్య విశిష్టతను విశదీకరించండి

5 ఎ కాళిదాసు కవితా రచన శైలిని మీ పాఠ్యం ఆధారంగా వివరించండి

లేదా

బి రఘువంశ ప్రథమ సర్గ సారాన్ని వివరించండి

6 ఎ జలముక్, మరుత్, భిషక్ శబ్దాలను అన్ని విభక్తులలో వ్రాయండి

లేదా

బి భూ, స్థా, గమ్ ధాతువుల లట్, లృట్ రూపాలను వ్రాయండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS R-23 NEW) EXAMINATIONS FEB 2024
ROMANTIC AGE
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Hellenism
- B Describe the frightening experience of silent sea with the hot sun above them in *The Rime of Ancient Mariner*?
- C What is Negative Capability according to John Keats?
- D Why does Frankenstein create the monster?
- E Write a short note on characteristics features of William Hazlitt's prose style?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

- 2 A Write an essay on the French Revolution?

OR

- B Write in detail on Pre-Romantic poets?

- 3 A How Wordsworth does recollect the images of nature from his childhood in his *Intimations of Immortality Ode*? Explain.

OR

- B Discuss the use of supernaturalism in Coleridge's *The Rime of Ancient Mariner*?

- 4 A Write a critical appreciation of John Keat's *Ode on a Grecian Urn*?

OR

- B Discuss Shelley's use of symbols in his poems prescribed for your study?

- 5 A Write an essay on the major themes of Jane Austen's *Pride and Prejudice*?

OR

- B Critically analyse the historical relevance of *Frankenstein*?

- 6 A What are the concerns of Charles Lamb about the Chimney Sweeper in *The Praise Of Chimney Sweeper*?

OR

- B Critically analyse William Hazlitt's *The Flight*?

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FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS-OLD) EXAMINATIONS FEB 2024
ENGLISH LANGUAGE AND PHONETICS (OLD)
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS:80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL Questions**

- A Write a short note on features of human language?
- B Organs of Speech
- C Syllable
- D Types of Morphemes
- E Homophones

SECTION – B (5 X 12 = 60 Marks)

Answer ALL Questions

2 A Discuss language as a system of Communication?

OR

B What is Formal Vs Informal Communication? Explain?

3 A Write an essay on the classification of Phonetic sounds?

OR

B Write an essay on the description of vowel sounds with examples?

4 A Write an essay on Weak forms and Elision?

OR

B Write an essay on Tones of Intonation?

5 A Discuss the minimal pairs in Phonology?

OR

B Write an essay on the important concepts of Morphology?

6 A What are the difference between GIE and RP? Explain.

OR

B Write in detail on Semantics with examples?

★★★★★

FACULTY OF ARTS

M.A. (Urdu) I - Semester Examination (CBCS) FEB 2024

Paper - IV چوتھا پرچہ
Deccani Adab (دکنی ادب)

Time : 3 Hours

Max. Marks : 80

Answer All the questions.

(حصہ الف)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے چار (4) نشانات ہیں۔ ہر جواب پندرہ (15) سطروں میں تحریر کیا جائے۔ (5 x 4 = 20)
- 1- دکنی ادب کی امتیازی خصوصیات کیا ہیں؟ بیان کیجیے۔
 - 2- اشرف بیابانی پر مختصر نوٹ لکھیے۔
 - 3- نصرتی کے بارے میں اپنی معلومات قلم بند کیجیے۔
 - 4- غواصی کی مثنویوں کا اجمالی تعارف کرائیے۔
 - 5- سراج اورنگ آبادی کی شاعری کا جائزہ لیجیے۔

(حصہ ب)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ (12) نشانات مختص ہیں۔ ہر سوال کا جواب چار (4) صفحات سے زیادہ نہ ہو۔ (5 x 12 = 60)
- 6- (A) دکنی زبان کے آغاز و ارتقاء پر روشنی ڈالیے۔ (یا)
(B) دکنی کی لسانی خصوصیات کی وضاحت کیجیے۔
 - 7- (A) بہمنی دور میں دکنی شاعری کی صورت حال پر روشنی ڈالیے۔ (یا)
(B) حضرت گیسو دراز کی دکنی شاعری کے بارے میں اپنی معلومات قلم بند کیجیے۔
 - 8- (A) میراں جی شمس العشاق کے حالات زندگی اور تصانیف پر روشنی ڈالیے۔ (یا)
(B) عادل شاہی دور کے اہم شعرا کا تعارف کرائیے۔
 - 9- (A) سلطان محمد قلی قطب شاہ کی شاعری کا تنقیدی جائزہ لیجیے۔ (یا)
(B) ملا وجہی کے نثری کارناموں پر تبصرہ کیجیے۔
 - 10- (A) مثنوی ”پھول بن“ کے پلاٹ کا مختصر خلاصہ لکھیے۔ (یا)
(B) دکنی غزل کی امتیازی خصوصیات بیان کیجیے۔

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FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) I SEMESTER (CBCS R-22 NEW) EXAMINATIONS FEB 2024
AGRICULTURAL ECONOMICS
PAPER – IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Resource use and efficiency
- b Price spread
- c Cropping pattern
- d Effect of technological change in productivity
- e Sustainable agriculture

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Briefly discuss the sources of rural credit in agriculture development

OR

B Critically analyse the changing phase of agriculture in development of an economy

3 A What are the factors on which marketable surplus of food grains depends

OR

B Explain the main systems of agricultural marketing in India

4 A Discuss the minimum support price policy in India

OR

B Explain the trend and pattern agricultural growth in India

5 A Discuss the role of public investment in Indian agriculture

OR

B Explain the distribution of gains from technological change

6 A Critically state the impact of globalisation on Indian agriculture

OR

B Explain the impact of WTO on food security

★★★★★

FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) I SEMESTER (CBCS OLD) EXAMINATIONS FEB 2024
COMPUTER APPLICATIONS – I
PAPER - IV

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Structure of Computer
- b Printer and Scanner
- c Paint
- d Word Pad
- e Micro Computers

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Explain the types of Computer Generations

OR

B Describe the Computer Applications in different fields in Railways, Income tax.

3 A Briefly explain the Components of Computer

OR

B Explain the difference between the Video display and Storage medias

4 A Elucidate the difference between the Internal and External Commands

OR

B Interpret the difference between the **Operating System** – Salient Features5 A Discuss the difference between the My Computer and **My Documents**

OR

B Briefly explain the Ms-Word and MS- Excel

6 A Briefly discuss the History of Computer

OR

B Micro Computers – Structure of Computer

★★★★★

FACULTY OF SOCIAL SCIENCES
M.A (SOCIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
INDUSTRIAL SOCIOLOGY
PAPER - IV

TIME: 3 HRS]

[MAX.MARKS: 80

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

- a What is Industrialisation
- b What are the functions of Industrial management
- c Functions of Trade Union
- d What is the role of conciliation in Industrial dispute
- e What is Absenteeism

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

- 2 A Discuss the nature and scope of Industrial sociology

OR

- B Distinguish between formal and informal organization

- 3 A Discuss the views of Adam smith on Industry and society

OR

- B What did Harry Braverman argue on labour and monopoly capital

- 4 A Elaborate on the evolution and growth of Labour union in India

OR

- B Critically examine the application of workers participation in management

- 5 A Explain the causes and consequences of Industrial Dispute

OR

- B Write a brief note on Industrial Dispute Act -1947

- 6 A Discuss the provisions and activities of ILO

OR

- B Discuss the impact of globalization on Industry and labour

★★★★★

310/MAR24/I-D

**FACULTY OF SOCIAL SCIENCES
MSW I SEMESTER (CBCS NEW) EXAMINATIONS FEB 2024
SOCIALCASE WORK
PAPER - IV**

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (4 X 5 =20 Marks)

1 **Answer ALL the questions**

- a Social Development
- b Developed economy
- c Social Advocate
- d Role of Therapist
- e Sustainable Development

SECTION - B (4 X 15 =60 Marks)

Answer ALL questions

2 A What are the indicators used in measuring Social Development

OR

B Name any two approaches in achieving Social Development

3 A Explain the role of social welfare in the transformation of developing societies

OR

B Discuss the importance of Social Welfare programs in addressing poverty

4 A Define Globalization and its impact on developing societies

OR

B Examine the effectiveness of international organization in promoting sustainable development in Developing societies.

5 A Name three components of sustainable development ?Discuss

OR

B What are the pre requisites for sustainable development?

6 A Discuss the social policy and its role in social development in India

OR

B Write about the evolution of social policy in India?

★★★★★

FACULTY OF COMMERCE
M.COM (GEN, CA & FA) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
BUSINESS ANALYTICS WITH SPREAD SHEETS (NEW)
PAPER - V

TIME: 3 HRS]

[MAX. MARKS: 60

SECTION - A (5 X 2 = 10 Marks)

1) Answer ALL the Questions

- a) What are the advantages of Business Analytics?
- b) How to copy text/ values/ formulas in MS-Excel?
- c) What is the procedure working with images?
- d) What is Histogram?
- e) Write about ACCRINT Function.

SECTION - B (5 X 10 = 50 Marks)

Answer ALL Questions

2. a) What is data decision model? Write down steps in problem solving

OR

- b) What is MS-Excel? Describe the advantages of MS-Excel.

3. a) Explain decision making with if condition logical formulas

OR

- b) Write about numerical formatting with Round(), Int() and Ceiling().

4. a) Explain the procedure of grouping and ungrouping of data

OR

- b) Write about goal seek and scenarios for what if analysis.

5. a) Explain the procedure of Mean, Median and Mode in MS-Excel with suitable example.

OR

- b) Explain in detail about ANOVA in MS-Excel with suitable example.

6. a) Write in detail about the Asset Depreciation Functions

OR

- b) Write in detail about INTRATE NOMINAL and RATE functions.

★★★★★

FACULTY OF COMMERCE AND BUSINESS MANAGEMENT
M.COM (GEN, FA and INSU & BANKING) II SEM (CBCS OLD) EXAMINATIONS FEB 2024
COMPUTER APPLICATIONS IN BUSINESS (OLD)
PAPER – V

Time: 3 Hours]

[Max. Marks : 60

SECTION - A (5 X 2 = 10 Marks)

1. Answer ALL Questions

- a) What are components of computer?
- b) What are the uses of Formatting menu?
- c) What are different modes of transmission?
- d) Explain the features of Ms-PPT.
- e) Accounting Information System

SECTION - B (5 X 10 = 50 Marks)

Answer ALL questions.

- 2 a) What is the role of computers in present scenario?

OR

- b) Discuss in detail about various applications of Computers in Business.

- 3 a) What do you mean by Data Communication? Explain the concepts and procedures.

OR

- b) What is meant by network topology and what are different network topologies?

4. a) How What do you mean by internet? What are the uses of internet?

OR

- b) What is operating system? What are the types of OS?

5. a) Create a document using word processor and examine the following:

- i. Create text ii. Save and Save as iii. print, print preview iv. closing

OR

- b) What are the different functions available in MS-Excel? Explain how they are useful for commerce

6. a) Why information is important to effective managerial planning, decision-making and control?

OR

- b) Explain the need and structure of Management Information System.

★★★★★

FACULTY OF ARTS
M.A (TELUGU) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
తెలుగు వారి చరిత్ర సంస్కృతి - I

పేపర్ - V

సమయం: 3 గంటలు]

[గరిష్ట మార్కులు : 80

సెక్షన్ - ఎ (5 X 4 = 20 మార్కులు)

1 ఈ క్రింది వానిపై లఘు వ్యాఖ్య వ్రాయండి

ఎ నాగరికత స్వభావం

బి హోలుడు

సి ఇక్ష్వాకులు

డి రెండవ మాధవ వర్మ

ఇ పల్లవులు

సెక్షన్ - బి (5 X 12 = 60 మార్కులు)

అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి

2 ఎ సంస్కృతి స్వరూప స్వభావాలను చర్చించండి

లేదా

బి ప్రాచీన సంస్కృతి అధ్యయన పద్ధతిని వివరించండి

3 ఎ శాతవాహనరాజులకు పూర్వపు ఆంధ్రదేశ స్థితిని వివరించండి

లేదా

బి శాతవాహనరాజుల కాలపు సాంస్కృతిక వైవిధ్యాన్ని వివరించండి

4 ఎ ఇక్ష్వాకుల పరిపాలన మత రాజకీయ పరిస్థితులను వివరించండి

లేదా

బి బృహత్ పలాయనుల పరిపాలన రీతిని విశదీకరించండి

5 ఎ విష్ణుకుండినుల కాలపు సాహిత్యం సంస్కృతి రీతిని వివరించండి

లేదా

బి ఆనంద గోత్రీకుల పరిపాలన ,సాహిత్యవిశేషాలను వివరించండి

6 ఎ రాష్ట్ర కూటుల పరిపాలనలో సాంస్కృతిక విశేషాలను వివరించండి

లేదా

బి పల్లవుల పరిపాలన నాటి సామాజిక పరిస్థితులను వివరించండి

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS R-23 NEW) EXAMINATIONS FEB 2024
PHONETICS AND SPOKEN ENGLISH
PAPER - V

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the following questions**

- A Distinguish between Phone, Phoneme And Allophone?
- B Affricates
- C Combinatory restriction of sounds in language
- D Pitch and Rhythm
- E Mother Tongue influence on English Language

SECTION – B (5 X 12 = 60 Marks)

Answer ALL the following questions

- 2 A Describe English vowel sounds in terms of three essential variables?

OR

- B Write an essay on Received Pronunciation (RP)?

- 3 A Write an essay on Diphthongs with examples?

OR

- B Write an essay on the classification of Consonant sounds?

- 4 A Write in detail on Syllable structure with examples?

OR

- B What are the problems of teaching Spoken English in India? Explain.

- 5 A Explain the different types of Stress with suitable examples?

OR

- B Write an essay on different types of tone groups?

- 6 A Distinguish between American English and General Indian English (GIE)?

OR

- B Explain the mother tongue influence on English Language?

★★★★★

FACULTY OF ARTS
M.A. (ENGLISH) I SEMESTER (CBCS-OLD) EXAMINATIONS FEB 2024
MODERN INDIAN LITERATURES IN TRANSLATION
PAPER - V

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL Questions**

- A Dalit Aesthetics
- B Write a short note on the theme of *Naked Solitary Hand* by Jibanananda Das?
- C Write a short note on the significance of the title *Samskara*?
- D The role of Leela Benare in *Silence! The Court is in Session*
- E Write a short note on Volga's *Agony*?

SECTION – B (5 X 12 = 60 Marks)

Answer ALL Questions

- 2 A Write an essay on the Indian Concept of Translation?
OR
B Write an essay on Progressive Writers Movement?
- 3 A Give an account of thematic concerns in Makhdoom Mohiuddin's poetry prescribed for your study?
OR
B Summarize Gajanan Madhav Muktibodh's *The Orange –Outang*?
- 4 A *Samskara* exemplifies the degeneration of values, serving as the mirror to the custom reality in Indian society? Explain.
OR
B Write an essay on the Psychological crises of Mother in Mahaswetha Devi's *Mother of 1084*?
- 5 A Write an essay on the main theme of Vijay Tendulkar's *Silence! The Court is in Session*?
OR
B Write an essay on the use of myth in Girish Karnad's *Hayavadana*?
- 6 A Write a critical analysis of Prem Chand's *Lottery*?
OR
B Write an essay on the central theme of Ishmat Chughtai *Lihaaf*?

★★★★★

FACULTY OF ARTS

M.A. (Urdu) I - Semester Examination (CBCS) FEB 2024

Paper - V پانچواں پرچہ

Ghazal (غزل)

Time : 3 Hours

Max. Marks : 80

Answer All the questions.

(حصہ الف)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے چار (4) نشانات ہیں۔ ہر جواب پندرہ (15) سطروں میں تحریر کیا جائے۔ (5 x 4 = 20)
- 1- غزل کے لغوی معنی اور اصطلاحی مفہوم کی وضاحت کیجیے۔
 - 2- سراج اورنگ آبادی اور ان کی غزل گوئی پر مختصر نوٹ لکھیے۔
 - 3- مومن کی غزل گوئی پر اظہار خیال کیجیے۔
 - 4- فانی کی غزل کی امتیازی خصوصیات بیان کیجیے۔
 - 5- آتش کی غزل گوئی کا تنقیدی جائزہ لیجیے۔

(حصہ ب)

- نوٹ : تمام سوالات حل کیے جائیں۔ ہر سوال کے بارہ (12) نشانات مختص ہیں۔ ہر سوال کا جواب چار (4) صفحات سے زیادہ نہ ہو۔ (5 x 12 = 60)
- 6- (A) غزل کی فنی خصوصیات کا تجزیہ کیجیے۔ (یا)
(B) غزل کی ہیئت اور موضوعات پر اپنے خیالات کا اظہار کیجیے۔
 - 7- (A) سلطان محمد قلی قطب شاہ کی غزل گوئی پر تبصرہ کیجیے۔ (یا)
(B) دکنی غزل کے امتیازات اجاگر کیجیے۔
 - 8- (A) اردو غزل کی تاریخ میں میر کے مقام کا تعین کیجیے۔ (یا)
(B) دبستان لکھنؤ کی غزل کی امتیازی خصوصیات واضح کیجیے۔
 - 9- (A) اردو غزل کے اہم معترضین کون تھے؟ اور غزل پر ان کے اعتراضات کیا تھے؟ (یا)
(B) اردو غزل کے احیاء میں حصہ لینے والے اہم شعرا کی خدمات پر روشنی ڈالیے۔
 - 10- (A) غالب کی غزل گوئی کی امتیازی خصوصیات بیان کیجیے۔ (یا)
(B) ”ترقی پسند غزل“ پر اپنے خیالات کا اظہار کیجیے۔

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FACULTY OF SOCIAL SCIENCES
M. A (ECONOMICS) I SEMESTER (CBCS R-22 NEW) EXAMINATIONS FEB 2024
ECONOMICS OF SOCIAL SECTOR
PAPER – V

TIME: 3 HRS]

[MAX. MARKS: 80

SECTION - A (5 X 4 = 20 Marks)

1 **Answer ALL the questions**

- a Human capital
- b Private and social benefits
- c Income distribution
- d Malnutrition
- e GATS

SECTION - B (5 X 12 = 60 Marks)

Answer ALL questions

2 A Discuss Differentiate between ordinary economics and the economics of education

OR

B Explain the Differentiate between education as consumption and as an investment

3 A Explain the Meaning of cost-benefit analysis. Its purpose and problems

OR

B State the Interpretations and evaluation of rates of return on investment in education.

4 A Write a note on Government's role in financing education at different levels with special reference to higher education

OR

B State the contribution of education to economic growth

5 A Discuss the major advantages of health and healthcare

OR

B Explain health as consumption and investment goods

6 A Elucidate the institutional issues in healthcare delivery

OR

B Explain the pricing and subsidies to the health sector

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FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) I SEMESTER (CBCS) EXAMINATIONS FEB 2024
RURAL AND URBAN SOCIOLOGY
PAPER - V

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (5 X 4 = 20 Marks)

1. Answer ALL the questions

- a) Explain the concept of Town / City
- b) Explain Jajmani System..
- c) Discuss the causes for social tensions in urban areas?
- d) Do we require Land Reforms? Discuss
- e) Write a note on Traffic Congestion and Transportation

SECTION – B (5 X 12 = 60 Marks)

Answer ALL questions

- 2 A) Explain the nature and scope of Rural Sociology.

OR

- B) Explain the causes and implications of population growth in urban areas.

- 3 A) Write a note on inter-caste relationships in rural India.

OR

- B) Explain Multi-nuclei Theory of Urban Growth.

- 4 A) Explain the causes and social implications of Green Revolution in India.

OR

- B) Enumerate the factors and consequences of Migration.

- 5 A) Discuss the causes for weavers suicides in Telangana.

OR

- B) Discuss the changes taking place in rural India due to Globalization.

- 6 A) Discuss unplanned settlements as a social problem in India.

OR

- B) Discuss the National Urban policy in India.

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FACULTY OF SOCIAL SCIENCES
M.A. (SOCIOLOGY) I SEMESTER (CBCS OLD) EXAMINATIONS FEB 2024
MODERNISATION, GLOBALISATION AND SOCIAL CHANGE

PAPER – V (B)

Time: 3 Hours]

[Max. Marks: 80

SECTION – A (4 X 5 = 20 Marks)

1. Answer ALL Questions

- a. World Capitalism
- b. IMF
- c. Diasporic Communities
- d. Modern Society

SECTION – B (4 X 15 = 60 Marks)

2. (a) Explain about Globalization as an Economic and Cultural process.

OR

- (b) Discuss about age of Information and Communication Technology.

3. (a) Explain what is meant by Political Economy of Globalisation.

OR

- (b) Explain about MNCs and market as agencies of Globalisation.

4. (a) Elaborate on ethos of Globalization.

OR

- (b) Discuss about mass media and consumer culture

5. (a) Explain how Globalisation has transformed India

OR

- (b) Describe the impact of Globalization on the Marginalized Communities.

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