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FOUR YEAR B.A./B.Com./B.Sc./B.C.A./B.B.A./B.Music./B.Dance./B.A.(O.L)/ B.H.M./B.VOCATIONAL IN DAIRYING AND ANIMAL HUSBANDRY/B.VOCATIONAL IN HORTICULTURE (ALL GROUPS) DEGREE EXAMINATION, JUNE/JULY -2024

CHOICE BASED CREDIT SYSTEM

SECOND SEMESTER

PART-I(A) - GENERAL ENGLISH

PAPER-I: A COURSE IN READING AND WRITING SKILLS

(Under CBCS New Regulation w.e.f. the academic year 2023-24)

Time : 3 Hours **Max. Marks : 75**

I. Answer any THREE of the following questions. **(3×5=15)**

a) Give a critical analysis of the poem, "Ulysses"

b) Write Noun forms for the following words by adding a Suffix:

i) Communicate

ii) Organise

iii) Develop

iv) Analyse

v) Provide

c) Write One Word Substitutes for the following.

i) One who does not have a definite belief about whether God exists or not.

ii) A great lover of books

iii) That which cannot be believed.

iv) One who is present everywhere.

v) Imaginary perfect society or place.

d) Match the following into appropriate collocations:

A			B	
1.	Fast	( )	A.	Warming
2.	Global	( )	B.	Play
3.	Gender	( )	C.	Jam
4.	Role	( )	D.	Bias
5.	Traffic	( )	E.	Food

e) Explain: "Tis not too late to seek a newer world".

II. Answer any THREE of the following questions. **(3×5=15)**

a) How does A.J. Cronin's "The Best Investment I Ever Made" explore the theme of the value of human connections and relationships over material wealth?

b) Who was Florence Nightingale, and what role did she play in the history of nursing, particularly during the Crimean War?

c) How did Florence Nightingale earn the nickname "The Lady with the Lamp," and what significance does it hold in her legacy as a nurse and healthcare reformer?

d) Write the differences between Skimming and Scanning.

e) What are the advantages of Skimming and Scanning in Reading Comprehension?

III. Answer any THREE of the following questions. **(3×5=15)**

a) Describe narrator's encounter with the girl selling baskets in "Night Train at Deoli" and its significance in the story.

b) Discuss the theme of infatuation portrayed in "Night Train at Deoli"

c) Write the summary of "Stopping by Woods on a Snowy Evening" in your own words, highlighting the main ideas and emotions conveyed by the poem.

d) Read the following passage and answer the questions that follow.

Albert Einstein, known for his brilliance in physics, had a reputation for being absentminded. One day, as he was traveling to deliver a lecture at a university, Einstein's driver, who resembled him in appearance, offered a suggestion.

"Professor Einstein," said the driver, "I've heard your lecture so many times that I could deliver it myself. Why don't you take a break and let me do it?"

Einstein, amused by the idea, agreed and swapped places with his driver. As the driver

delivered the lecture, Einstein, disguised as the driver, sat among the audience, enjoying the role reversal.

To his surprise, the driver delivered the lecture flawlessly, capturing Einstein's ideas and theories with remarkable accuracy. However, during the question-and-answer session that followed, a particularly challenging question was posed.

The driver, unfazed, replied, "Well, the answer to that question is quite simple. In fact, it's so simple that I'll let my driver in the audience answer it."

The audience burst into laughter as Einstein, still disguised as the driver, stood up and provided the correct answer, much to everyone's amusement.

This anecdote highlights Einstein's playful nature and his ability to find humor in everyday situations, even while sharing his profound insights with the world.

i) Which word in the passage means 'exchanged'?

ii) How did Einstein react to the driver's suggestion? (Choose the right option)

a) He declined the offer and delivered the lecture himself.

b) He swapped places with the driver and let him deliver the lecture.

c) He laughed at the driver's suggestion but continued with his plans.

d) He fired the driver for proposing such an idea.

iii) How did the driver perform during the lecture?

iv) What happened during the question-and-answer session?

v) What does the anecdote reveal about Einstein's personality?

e) Make Notes on the following passage.

Climate change poses significant threats to biodiversity worldwide. Rising temperatures and erratic weather patterns are disrupting ecosystems, leading to habitat loss and fragmentation. This displacement forces species to migrate, impacting genetic diversity and increasing extinction risks. Moreover, climate change affects reproductive cycles and behaviours, causing mismatches in key life events like flowering and migration. These disruptions exacerbate existing threats like habitat destruction and pollution, pushing species towards extinction. Urgent action is needed to address these challenges. Efforts to reduce greenhouse gas emissions, protect natural habitats, and promote sustainable practices are essential. By mitigating climate change impacts, we safeguard biodiversity and maintain ecosystem services vital for human well-being. This requires global cooperation and policy interventions to ensure a sustainable future for all life on Earth.

IV. Answer any THREE of the following questions. **(3×5=15)**

a) Describe the feelings of the mother as presented in the poem "Night of the Scorpion".

b) Rome was not built in a day. Expand the idea

c) Write a critical analysis of the poem, "Night of the Scorpion."

d) What is an agenda of a meeting? What is its significance?

e) Imagine that you have been the student convener of cultural activities of your college. Prepare a notice inviting students to participate in the competitions in connection with Annual Day Celebrations of your college.

V. Answer any THREE of the following questions. **(3×5=15)**

a) Provide a summary of "An Astrologer's Day" in your own words, highlighting the key events and characters in the story.

b) Prepare a CV for the job you are aspiring to get.

c) Write a letter to the editor of the newspaper about frequent interruptions to power supply in your area.

d) What is E-Correspondence? What are its advantages?

e) Write an email to the principal of your college for leave of absence as you have to attend the marriage of your sister.

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FOUR YEAR B.A./B.Com./B.Sc./B.C.A./B.B.A./B.Music./B.Dance./B.A(OL)/ B.H.M./B.A(OL) (All Groups) DEGREE EXAMINATION, JUNE/JULY - 2024

CHOICE BASED CREDIT SYSTEM

SECOND SEMESTER

PART-I(A) - SANSKRIT

PAPER - II: Poetry, Prose And Grammar - II

(Under CBCS New Regulation w.e.f. the academic year 2023-24)

Time : 3 Hours **Max. Marks : 75**

सुचनाः- द्वितीय, तृतीय, चतुर्थ, पञ्चम, दशम, प्रश्नाः संस्क्रुत भषायामेव समाधेयाः

Q.No. 2, 3, 4, 5, and 10 Should be Answered in Sanskrit Only. **(25)**

(प्रथमों भागः)

I. द्वौ श्लोकौ पूरयित्वा भावं च लिखत। **(2×3=6)**

1) ता..... च क्षुरिव प्रविष्टा।।

2) स्थाने वृता..... कथमात्मतुल्यम्।।

3) अपामार्गस्तु..... सरक्तहृद्राहि गन्तिकृत।।

4) तुलसी..... रूचकृद्वातशान्तिकृत्।।

II. द्वयोः सम्पूर्ण शब्दरूपाणि लिखत। **(2×3=6)**

1) तनुः

2) वधूः

3) वनम्

4) वारि

III. द्वयोः धात्वोः निर्दिष्ट लकारे सर्वाणि रूपाणि लिखत। **(2×2½=5)**

1) इच्छन्ति

2) ऐच्छताम्

3) करवाणि

4) वन्देवहि

IV. चतुर्णां नामनिर्देशपूर्वकं सन्धत्त। (4×1=4)

1) तत् + लयः 2) सुप् + अन्तः
3) प्रत्यङ् + आत्मा 4) उमाम् + स्तौमि
5) नृपः + जयति 6) नराः + इमे
7) कवि + आयाति 8) रामः+ टीकते

V. चतुर्णां नामनिर्देशपूर्वकं विग्रह वाक्यानि लिखत। (4×1=4)

1) उपकृष्णमु 2) निर्मक्षिकम्
3) प्रत्यहम् 4) शाकप्रति
5) ऊढरथः 6) कृशोदरी
7) मुष्टामुष्टे 8) दक्षिणपूर्वा

(द्वितीयो भागः) (50)

VI. द्वयोः आन्ध्रभाषायाम् आंग्लभाषायां वा अनुवदत। (2×3=6)

a) मुहूर्त विश्रान्तः तस्य सरसः उत्तरे तीरे श्रुतिसुभगं गीतशब्दमश्रुणोत्।
कुतोऽत्रगीतसभूतिः इति तत्प्रभवजिज्ञासया पश्चिमया सरस्तीरसरण्या संप्रतस्थे।।

b) अत्रान्तरे चन्द्रमण्डलविनिर्गता दिव्याकृतिः पुरूषः बाहुभ्यां तमुपरतमुत्क्षिपन् गम्भीरेण स्वरेण वत्से महाश्वेते! न परित्याज्यास्त्वया प्राणाः।

c) नन्दा-'चोरः ग्रहीतव्यः' इति बहुकालतः इच्छा आसीत्। सः चोरः अध लब्धः इति तं गृहीतवती एव। (सगर्वम्) रज्वां तस्य बन्धनं कृत्वा आगता अस्मि।

d) वृन्दा - मम गृहे गोष्ठे स्थिताः सर्वेऽपि वत्साः रज्जुविहीनाः कृताः तेन दुष्टेन। अतः एकापि धेनुः क्षीरमेव न ददाति अद्य।

VII. a) "हस्तेन हस्तं पारेगृह्य वध्वाः स राजसूनुः सुतरां चकासे" विशदयत। (1×8=8)

(अथवा)

b) गणेशाय एकविंशति पत्रार्चनं समर्थयत।

VIII.a) कथं पत्रा राणावंशपरित्राणं चक्रे? (1×8=8)

(अथवा)

b) कीदृशं सत्पुमासं भजेत? विशदयत।

IX. a) चन्द्रापीडमहाश्वेतयोर्मेलनं, तस्याः वृत्तान्तं च विशदयत। (1×8=8)

(अथवा)

b) को जानीते को जानीते परमपुरूष तव महिमानम्? विशदयत।

X. चतुर्णां लघु समाधानानि लिखत। (4×2=8)

1) विवाहसमये वरः कीदृशः आसीत्? कुमारी कीदृशी बभूव?

2) वध्वा सह वरः कीदृशं राजमार्गं प्राप?

3) ज्वरहारिणी का?

4) रक्तमांसबलप्रदं किम्?

5) पन्नया कति वर्षाणि राजभोजनं भक्षितम्?

6) कः पन्नबालकं खण्डद्वयं चकार?

7) सुहृत्प्राणरक्षणार्थं कपिञ्जलः किं कृतवान्?

8) महाश्वेताथाः तपः कारणं किम्?

XI. चतुर्णां ससन्दर्भं व्याख्यात। (4×3=12)

1) तथा हि शेषेन्द्रियवृत्तिरासां सर्वात्मना चक्षुरिवप्रविष्टा।

2) गतेयमात्मप्रतिरूपमेव मनो हि जन्मान्तर सङ्गतिज्ञम्।

3) कुष्टं निहन्ति लेपेन प्रभावेण ज्वरं जयेत्।

4) राष्ट्रनिष्ठा सदाचारा पुत्रत्यागेन मानिनी।

5) भगवन्! गृहाण तवायमात्मजः।

6) कथमात्मसुखार्थिनी पाणिं ग्रहथिष्यामि।

7) वरोऽपि नागच्छति, वराहोऽपि नागच्छति।

8) दोहनार्थं यदा गच्छामि , धेनवः पादेन मां प्रहरन्ति।

FOUR YEAR B.C.A. HONOURS (DATA SCIENCE/ARTIFICIAL INTELLIGENCE/BIG DATA/CLOUD COMPUTING/GENERAL) DEGREE EXAMINATION

JUNE/JULY-2024

CHOICE BASED CREDIT SYSTEM

SECOND SEMESTER - MAJOR

PART-II

PAPER-4: PROGRAMMING IN C

(Under CBCS New Regulation w.e.f the academic year 2023-24)

Time : 3 Hours **Max. Marks : 75**

SECTION - A

Answer any Five of the following questions. Each question carries equal marks.

(5×3=15)

1. What are the key features of algorithms?
2. What are variables, and how are they declared and used in C?
3. What is an array in programming, and why is it used?
4. What is a function in programming?
5. What is a Pointer?
6. What is an array of structures?
7. What are structures and unions in C programming?
8. What are common operations performed on arrays?
9. What are tokens in programming, and why are they important?
10. Define flowcharts and their significance in algorithm design.

SECTION- B

Answer any Five of the following questions. Each question carries equal marks.

(5×12=60)

11. Discuss the features of the C programming language.
12. Explain the process of compiling and executing C programs.

13. Explain the syntax and usage of if, if-else, and nested if-else statements in C programming.

14. Discuss in detail about the iterative statements (loops) in C.

15. Explain in detail about the syntax for declaring arrays in C programming.

16. Explain various methods for accessing elements of an array.

17. Explain the concept of recursion in programming.

18. What is the difference between local variables, global variables in C?

19. Explain the concept of enumerated data types in C programming.

20. Define a union in C programming and explain how it differs from a structure.

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FOUR YEAR B.C.A. HONOURS (ARTIFICIAL INTELLIGENCE) DEGREE EXAMINATION, JUNE/JULY-2024
CHOICE BASED CREDIT SYSTEM
SECOND SEMESTER - MAJOR
PART - II
PAPER-3: FUNDAMENTALS OF COMPUTERS AND BASICS OF ARTIFICIAL INTELLIGENCE

(Under CBCS New Regulation w.e.f the academic year - 2023-24)

Time : 3 Hours **Max. Marks : 75**

SECTION - A

Answer any Five of the following questions. Each question carries equal marks.

(5×3=15)

1. What are the characteristics of a computer?
2. Explain the types of computers and provide examples for each.
3. What are the objectives and functions of an operating system?
4. Explain the types of operating systems with examples for each type.
5. Define artificial intelligence and its underlying assumptions.
6. Discuss the AI problems and techniques used in AI problem-solving.
7. Define heuristic search techniques.
8. Provide examples of real-world problems where heuristic search techniques can be applied effectively.
9. Define problem-solving agents and their role in artificial intelligence.
10. Explain depth-limited search and its relevance in solving complex problems.

SECTION- B

Answer any Five of the following questions. Each question carries equal marks.

(5×12=60)

1. Explain the types of computers and their respective uses in various domains.
2. Discuss the different types of hardware, including input and output devices, and their roles in computer systems.

3. Explain the features and commands of DOS highlighting its role in computer operations.

4. Analyse the components and features of the Windows operating system elucidating their functionalities.

5. Examine the concept of problem spaces and search techniques, emphasizing their role in AI models.

6. Evaluate the criteria for success in artificial intelligence applications and the challenges in designing search programs.

7. Discuss heuristic search, techniques such as generate-and-test, hill climbing, and best-first search and their applications in problem solving.

8. Explain problem reduction and constraint satisfaction methods in heuristic search, highlighting their effectiveness in complex scenarios.

9. Compare problem-solving agents and their strategies, including breadth-first search uniform cost search, depth-first search, and depth-limited search.

10. Illustrate how search strategies are applied to solve toy problems and real-world challenges in artificial intelligence.

FOUR YEA B.Sc. HONOURS DEGREE EXAMINATION, JUNE/JULY -2024

CHOICE BASED CREDIT SYSTEM

SECOND SEMESTER - MINOR

PART-II: ELECTRONICS

PAPER-3: FUNDAMENTALS OF ELECTRICITY AND ELECTRONICS

(Under CBCS New Regulation w.e.f the academic year 2023-24)

Time : 3 Hours **Max. Marks : 75**

SECTION - A

Answer any FIVE of the following questions. Each question carries 5 marks. (5×5=25)

1. State and Explain Coulomb's law.
2. Derive the relation between electric field and electric potential.
3. Derive the equation for the resultant capacity of a set of series capacitors.
4. Derive the expression for the energy stored in a capacitor.
5. What is specific resistance ? How it can be determined using Carey-Foster bridge.
6. What is Biot-Savart's Law? Explain.
7. What is Zener diode? Explain its construction and characteristics.
8. Derive the equation for the efficiency of a half wave rectifier.
9. What is a transistor? Explain the construction of a NPN transistor.
10. Explain transistor as an amplifier.

SECTION - B

Answer All of the following questions. Each question carries 10 marks. (5×10=50)

11. a) Discuss electric potential due to a uniformly charged conducting sphere.

(OR)

b) Discuss electric field intensity due to an electric dipole.

12. a) Derive the expression for the capacity of a parallel plate capacitor with and without a dielectric medium.

(OR)

b) Explain different types of capacitors.

13. a) What is a potentiometer? Explain calibration of low range ammeter.

(OR)

b) Explain the measurement of the figure of merit of a ballistic galvanometer.

14. a) What is a junction diode? Explain construction, working and characteristics of a junction diode.

(OR)

b) Explain clipper and clamper using diodes.

15. a) What are hybrid parameters of a transistor? Explain.

(OR)

b) Explain the construction of logic gates AND and OR using diodes.

Redesign and develop a Java program for implementation of data link layer framing Methods