



University of Engineering and Management, Kolkata

Term- II Examination, April, 2024

Programme Name: B.Tech (CSE, CSE(IOT, BCT & CS),
CSE(AIML), CST, CSIT, ECE, EE, ME, BT)

Semester: 6th

Course Name: Skill Development for Professionals- VI

Course Code: HSMC682

Full Marks: 30

Time: 1hour

Part - A

Attempt any 15 Out of 20 questions
Each question carries 1 Mark (1 X 15)

- 1 Find the number of ways to arrange the letters of the word "COMPUTER" such that the vowels always come together. 1
A. 720
B. 1440
C. 360
D. 180
- 2 In how many ways can the letters of the word 'ALLAHABAD' be arranged? 1
A. 7560
B. 840
C. 336
D. 34650
- 3 In how many ways can a president, vice-president, and treasurer be selected from a group of 10 people? 1
A. 720
B. 180
C. 120
D. 30
- 4 The number of seats in a cinema hall is increased by 25%. The cost of each ticket is also increased by 10%. The effect of these changes on the revenue collection will be an increase of 1
A. 37.5%
B. 45.5%
C. 47.5%
D. 49.5%
- 5 A shopkeeper bought 15kg of rice at the rate of ₹29 per kg and 25kg of rice at the rate of ₹20 per kg. He sold the mixture of both types of rice at the rate of 27 per kg. His profit in this transaction is 1
A. Rs. 125
B. Rs. 150
C. Rs. 140
D. Rs. 145

Direction (6-10): Read the information given below and answer the questions that follow.
 There are eight persons - Mita, Niya, Om, Pari, Qiya, Rati, Shri and Tiya. All of them are sitting in a straight row and are facing in the South direction but not necessarily in the same order. There are only two persons between Rati and Pari. The number of persons between Qiya and Mita is same as the number of persons between Pari and Shri. Om is not a neighbor of Shri who is immediate left of Niya. Qiya is second to the left of Rati who is fourth from the right corner. Mita sits at any corner of the row. Tiya sits immediate right of Qiya.

- 6 How many persons are seated to the left of Niya? 1
 A. One
 B. Three
 C. Six
 D. None of these
- 7 Three of the following four are alike in some way and thus form a group. Which of the following does not belong to the group? 1
 A. Om
 B. Pari
 C. Rati
 D. Qiya
- 8 Who among the following is/are immediate neighbour(s) of Qiya? 1
 A. Tiya
 B. Om
 C. Both A & B
 D. None of these
- 9 Who among the following sits second to the left of the person who sits third from the right end? 1
 A. Niya
 B. Tiya
 C. Mita
 D. None of these.
- 10 Who among the following sits third to the left of Rati? 1
 A. Om
 B. Niya
 C. Pari
 D. None of these

Directions (11-15): Study the following information carefully and answer the questions given below.

Eight boxes are placed one above the another. Only two boxes are placed between box U and T. Only one box is placed between box T and R. Only two boxes are placed between box R and V. Box V is placed below box R. Three boxes are placed between S and Q, both S and Q are placed above box T. Box W is placed below box V. Not more than one box is placed between box S and box P.

- 11 How many boxes are there between box T and box S? 1
 A. None
 B. One
 C. Two
 D. More than three

- 12 Which of the following box is placed immediately above box Q? 1
 A. W
 B. U
 C. T
 D. R
- 13 Which of the following box is placed at the bottommost position? 1
 A. R
 B. W
 C. U
 D. T
- 14 Which of the following box is placed immediately below box P? 1
 A. U
 B. W
 C. R
 D. T
- 15 How many boxes are there between box W and box R? 1
 A. None
 B. One
 C. Two
 D. Three

Direction (16-20): Read each of the sentences given below and analyse if they are grammatically incorrect. Choose that part as your answer which has as error in it. If the sentence is error free, choose option 'D' as your answer.

- 16 Towns after towns were (A)/ conquered by him but (B) he found no peace.(C)/ No error.(D) 1
 A. A
 B. B
 C. C
 D. D
- 17 He informed that (A)/he had lost a packet (B)/of the hundred rupees notes(C)/ No Error (D) 1
 A. A
 B. B
 C. C
 D. D
- 18 Last week's sharp hike in the wholesale price of beef(A) / is a strong indication for(B) / higher 1
 meat costs to come.(C)/ No error(D)
 A. A
 B. B
 C. C
 D. D
- 19 All the woman teachers (A)/are agitating against the (B)haughty attitude of the Principal. (C)/ 1
 No Error (D)
 A. A
 B. B
 C. C
 D. D

- 20 All the furnitures have been (A)/sold for a song (B)/ as we were in a hurry to leave the town.(C)/ 1
No error.(D)
A. A
B. B
C. C
D. D

Part - B

Attempt any 1 out of 3 questions
Each question carries 5 Marks (1 X 5)

Direction (21-23): Choose any one of the following topics and write an answer according to the question.

- 21 Imagine yourself applying for a summer research position at a neuroscience institute 5
investigating brain-computer interfaces for enhancing human cognition. Construct a professional CV showcasing your technical expertise and research capabilities, leveraging coursework, academic projects, and any relevant internships or publications. Highlight skills in areas such as neuroimaging analysis, computational modelling, and experimental design, emphasizing your passion for advancing neuroscience research.
- 22 Picture yourself pursuing a summer internship at an environmental conservation organization 5
dedicated to preserving biodiversity and combating climate change. Develop a professional CV that highlights your diverse skill set and experiences, even if they diverge from traditional conservation backgrounds, to demonstrate your commitment to environmental stewardship.
- 23 Envision yourself applying for a summer research position at a leading artificial intelligence 5
lab focused on advancing machine learning algorithms for healthcare applications. Construct a professional CV showcasing your technical prowess and research acumen, leveraging coursework, academic projects, and any relevant internships or personal projects.

Part - C

Attempt all the questions
Each question carries 2 marks (2 X 5)

Direction (24-28):Read the passage given below and answer the questions that follow.

The victory of the small Greek democracy of Athens over the mighty Persian Empire in 490 B.C. is one of the most famous events in history. Darius, king of the Persian Empire, was furious because Athens had interceded for the other Greek city-states in revolt against Persian domination. In anger the king sent an enormous army to defeat Athens. He thought it would take drastic steps to pacify the rebellious part of the empire.

Persia was ruled by one man. In Athens, however, all citizens helped to rule. Ennobled by this participation, Athenians were prepared to die for their city-state. Perhaps this was the secret of the remarkable victory at Marathon, which freed them from Persian rule. On their way to Marathon, the Persians tried to fool some Greek city-states by claiming to have come in peace. The frightened citizens of Delos refused to believe this. Not wanting to abet the conquest of Greece, they fled from their city and did not return until the Persians had left. They were wise, for the Persians next conquered the city of Eritrea and captured its people.

Tiny Athens stood alone against Persia. The Athenian people went to their sanctuaries. There they prayed for deliverance. They asked their gods to expedite their victory. The Athenians refurbished their weapons and moved to the plain of Marathon, where their little band would meet the Persians. At the last moment, soldiers from Plataea reinforced the Athenian troops. The Athenian army attacked, and Greek citizens fought bravely. The power of the mighty Persians was offset by the love that the Athenians had for their city. Athenians defeated the Persians in both archery and hand combat. Greek soldiers seized Persian ships and burned them, and the Persians fled in terror. Herodotus, a famous historian, reports that 6,400 Persians died, compared to only 192 Athenians.

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| 24 | What event sparked Darius, the king of the Persian Empire, to send an enormous army to defeat Athens? | 2 |
| 25 | How did the Athenian form of government differ from that of the Persian Empire? | 2 |
| 26 | How did the citizens of Delos react to the arrival of the Persians, and what was the consequence of their decision? | 2 |
| 27 | Describe the preparations made by the Athenians before the Battle of Marathon. | 2 |
| 28 | What role did the soldiers from Plataea play in the Battle of Marathon? | 2 |
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