

ATOMIC ENERGY CENTRAL SCHOOL-1, HYDERABAD
PERIODIC TEST-III EXAMINATION, 2025-'26

Class: IX

Duration: 1½ hours

Subject: AI (Artificial Intelligence)

Max. Marks: 40

General Instructions:

1. This Question Paper consists of two sections: Section-A & Section-B
2. All questions of a particular section must be attempted in the correct order.

Section-A

1. Answer any 5 out of the given 6 questions: (1 X 5 = 5)

- i. _____ are repeating designs or sequences that can be observed in numbers, shapes, images, languages or objects in our surrounds.
(A) Patterns (B) Iterations
(C) Sequences (D) Statistics ()
- ii. _____ measures the amount of certainty of an event.
(A) Probability (B) Calculus
(C) Series (D) Pattern ()
- iii. _____ of an event occurring is somewhere between impossible and certain.
(A) possibility (B) existence
(C) probability (D) outcome ()
- iv. If an event is certain or sure to happen, it will have a probability of
(A) 0 (B) 1
(C) True (D) None ()
- v. Picking a random day of the week, and it turns out to be both Monday and Friday at the same time. Identify events.
(A) Likely events (B) Unlikely events
(C) Impossible events (D) Certain events ()
- vi. If you toss a coin, the chance of getting a head or tail is an example of
(A) equal probability (B) unlikely events
(C) impossible events (D) certain events ()

2. Answer any 5 out of the given 6 questions: (1 X 5 = 5)

- i. _____ generated images can add modifications, enhancements and even entirely new imaginative details.
(A) Computer (B) AI
(C) Algorithm (D) Real ()
- ii. Creating portraits of non-existing people can be done using
(A) Paint (B) GANs
(C) VAEs (D) RNNs ()

- iii. _____ can be used to generate large volumes of content quickly and efficiently.
 (A) Supervised learning (B) Unsupervised learning
 (C) Generative AI (D) Deepfake ()
- iv. Name the type of Generative AI used for creating new sentences that mimic the style of Shakespeare or generating dialogue for a chatbot.
 (A) Real data (B) GANs
 (C) VAEs (D) RNNs ()
- v. In generative AI, _____ is the initial input or instruction given by the user to the AI model to guide it in generating the desired content.
 (A) dataset (B) prompt
 (C) data (D) information ()
- vi. Name the type of generative AI used for artistic image creation based on learned features from famous paintings.
 (A) AEs (B) GANs
 (C) VAEs (D) RNNs ()

3. Answer any 5 out of the given 6 questions: (1 X 5 = 5)

- i. _____ assist computers to understand and recognize patterns, much like how humans do.
- ii. _____ is used in AI representing trends using data visualization.
- iii. Certain events are guaranteed to happen and have a probability _____.
- iv. _____ is the famous sequence starts with 0 and 1, and each subsequent number is the sum of the two preceding numbers.
- v. Calculus is essential for understanding the best possible solution algorithms used in machine learning. (True / False)
- vi. Mean is used to determine the effectiveness of new treatments or drugs. (True / False)

4. Answer any 5 out of the given 6 questions: (1 X 5 = 5)

- i. An AI-generated image is created using AI _____.
- ii. _____ dataset is the information, which is tagged with identifiers of data.
- iii. Gen AI is gaining popularity due to the fact that people can use _____ to prompt AI.
- iv. _____ is a generative multimodal AI model created by Google.

- v. Generative AI is trained with new data and content. (True / False)
- vi. Misinformation created by generative AI does not have any serious social impacts. (True / False)

Section-B

Answer any 3 of the following 4 questions:

(2 X 3 = 6)

- 5. What is probability in statistics? How do you calculate probability?
- 6. Define the term “Statistics”. Explain the use of statistics in disease prediction?
- 7. Find the probability of getting two heads when five coins are tossed?
- 8. List down any 4 areas of applications of statistics.

Answer any 3 of the following 4 questions:

(2 X 3 = 6)

- 9. List the important features of real images captured by camera.
- 10. Explain the term deep fake.
- 11. What is a random noise dataset?
- 12. Differentiate between Generative AI and Conventional AI in terms of goals.

Answer any 1 of the following 2 questions:

(4 X 1 = 4)

- 13. What are the possible ways to express probability? Explain each in brief.
- 14. (a) How is probability helpful for a student in studying a specific topic?
(b) How can probability help in the field of medicine?

Answer any 1 of the following 2 questions:

(4 X 1 = 4)

- 15. Explain briefly the limitations of Gen AI.
- 16. Write the benefits of using generative AI.

* * * * *