ST. MARGARET SR. SEC. SCHOOL
ANNUAL EXAMINATION 2024-25
SUBJECT:ARTIFICIAL INTELLIGENCE (417)
CLASS: IX

Time: 2Hr   **SAMPLE PAPER**   **M.M: 50**

IMPORTANT INSTRUCTIONS:

The Question Paper consists of four sections: Section A ,B,C and D.
● The Question paper consists of 28 questions in total.
● Section A has Objective type questions whereas Section B,C and D contains Subjective type questions.

- **Section A** consists of 15 questions (Q1 to Q15). Each question carries 1 Mark.
- **Section B** consists of 6 questions (Q16 to Q21). Each question carries 2 Mark.
- **Section C** consists of 5 questions (Q22 to 26). Each question carries 3 Mark.
- **Section D** consists of 2 questions (Q27 to Q28). Each question carries 4 Mark

● All questions of a particular section must be attempted in the correct order

SECTION A   **1x15=15**

Multiple Choice Questions (Write the correct answer)

1. _____ method involves training a model using labelled data.
a. Supervised learning   b. Unsupervised Learning   c. Clustering

2. Likely, unlikely, certain and _____are the events of the probability.
a.Unacheivable   b. Impossible   c.Prohibited

3. _____ can be used to manipulate videos, creating realistic but false representations of people.
a. Deep Fake   b. Generative Adversarial Networks   c. Autoencoder

4. State True and False :
"Generative AI models use vast libraries of samples to train neural networks and other complicated structures to produce new content based on those patterns."

5. Map applications like Google Maps use probability_____.
a. To play music in the background
b.To predict traffic congestion based on past and real-time data
c. To randomly select destinations

6. Assertion (A): Election outcomes can be predicted using probability.
Reason (R): Political analysts use probability models based on polling data and historical trends to estimate election results.
a. Both A and R are true, and R is the correct explanation of A.
b. Both A and R are true, but R is not the correct explanation of A.
c. A is false, but R is true.

7**.** In the Data Pyramid, 'Wisdom' represents_____.
a. Raw data collected from various sources.
b. Processed data that provides information.
c. Understanding why things are happening in a particular way

8. _____data is used in Computer Vision domain of AI
a. Images and videos   b. Textual   c. Numeric

9. _____ is the correct order of key elements of 4Ws Problem Canvas.
a. Who, What, where and Why
b. Why, What , Where and Who
c. Who, What, Why and Where

10. _____is an example of non verbal communication
a. Facial Expression   b. face to face communication   c. verbal call

11.Muse Ai tool is used to generate _____.
a. Text   b. Video   c.Productivity

12. Characteristic of Entrepreneurship is _____.
a. Creative Activity   b. Risk Bearing   c. Both of these

13. _____type of irrigation is used to conserve water.
a. Sprinkler irrigation   b. Crop Rotation   c. Terracing

14. _____as the final stage in the AI project cycle where the AI model or solution is implemented in a real-world scenario.
a. Data Acquisition   b. Deployment   c. Evaluation

15. _____ referred to as information privacy, concerned with the proper handling of sensitive data.
 a. Data Security   b. Data Literacy   c. Data Privacy

SECTION B   **2x6=12**
16. Write about any two applications areas where statistics is used?
17. How is ICT used in our daily life?
18. Discuss any two limitations of Generative AI?
19. Mention various methods and practices to conserve Air.
20. Differentiate between Self Esteem and Self Monitoring.
21. Write about various types of facial expression.

Section C   **3x5=15**
22. Write about the following terms:
a. GANs   b.RNN   c.VAEs
23.a. What is Pattern?
     b. How AI and Maths are interconnected?
24. Define Entrepreneurship. State various roles of Entrepreneur.
25. Write about various AI models.
26. State the difference between Qualitative Data and Quantitative Data.

Section D   **4x2=8**
27. Write about the following terms:
a. Data Exploration   b. Modelling   c. Machine Learning   d. Cyber Security
28. How does Generative AI enhance the following aspects:
a. Creativity   b. Accessibility   c. Exploration   d.Personalization