

# NAVODAYA VIDYALAYA SAMITI

SUBJECT: ARTIFICIAL INTELLIGENCE (417)

CLASS X<sup>TH</sup>

Periodic Test - II (Session 2026-27)

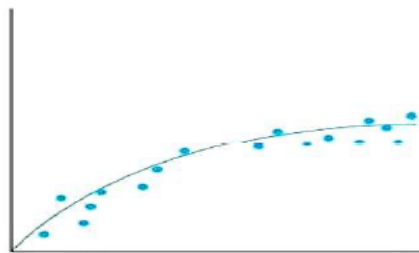
Max. Time Allowed: 01:30 Hrs.

Max. Marks: 40

## SECTION – A (OBJECTIVE TYPE QUESTIONS)

(20 x 1 = 20)

1. A receiver hears a message but fails to understand its intended meaning. Which stage has most likely failed?  
a) Transmission                      b) Decoding                      c) Feedback                      d) Channel selection
2. Ms. Saloni travelled to Sweden from India to pursue her higher education. But she doesn't know how to speak Swedish (language of Sweden). Because of this, she was unable to find a part time job. This is an example of:  
a) Interpersonal barrier    b) Physical barrier    c) Organisational barrier    d) Linguistic barrier
3. Which of the following best describes about descriptive feedback?  
a) It simply tells whether the performance is good or bad.  
b) It explains what was done well and/or what needs improvement.  
c) It is always given in written form.  
d) It is always negative in nature.
4. Which of these is not a benefit of good communication?  
a) Better relationships    b) Better teamwork    c) More misunderstanding    d) Clear understanding
5. Which type of non-verbal communication is shown by actions like raising a hand to greet or pointing a finger at someone?  
a) Facial Expression                      b) Posture                      c) Gesture                      d) Eye Contact
6. Predicted data generated from the AI project is known as  
a) Testing Data                      b) Training Data                      c) Sample Data                      d) Predicted Data
7. Which AI application involves analysing large sets of data to extract meaningful insights for decision-making?  
a) Computer Vision                      b) Robotics                      c) NLP                      d) Data Science
8. The following diagram indicates:



- a) Classification                      b) Regression                      c) Positive Reinforcement                      d) Clustering
9. \_\_\_\_\_ is a domain of AI related to data systems and processes, in which the system collects numerous data, maintains data sets and derives meaning/sense out of them.  
a) Data Science                      b) Computer Vision                      c) NLP                      d) All of the above
10. The stakeholder is determined in which of the following block of 4Ws?  
a) what                      b) where                      c) who                      d) why
11. Interpretation of some useful information out of the large data is known as \_\_\_\_\_.  
a) Problem Scoping                      b) Evaluation                      c) Data exploration                      d) Data acquisition

12. Choose the correct option:

- a) Classification -> continuous data
- b) Regression -> discrete data sets
- c) Clustering -> unknown data set
- d) Decision Tree -> Only discrete data

13. Which of the following statements is true about AI Bias?

- a) It is always negative.
- b) It leads to overfitting of training data.
- c) It can result in unfair and discriminatory outcomes.
- d) A machine can have biases of its own.

14. For Data Science, usually the data is collected in the form of tables. These tabular datasets can be stored in different formats. Which of the following formats is not used for storing data in a tabular format?

- a) CSV
- b) Website
- c) SQL
- d) Spreadsheet

15. The concept of \_\_\_\_\_ is used to apply face filters on various social media platforms.

- a) NLP
- b) Computer Vision
- c) Data Science
- d) Block Chain Technology

16. An AI recruitment system consistently gives lower scores to candidates from a particular group because its training data contained historical bias. This is an example of:

- a) Transparency
- b) Bias
- c) Accessibility
- d) Efficiency

17. In a dataset about students, which can be a **feature**?

- a) Student's age
- b) Student's final prediction
- c) AI model
- d) Computer

18. A dataset contains photographs labelled "Cat" and "Dog". An AI model learns to classify new photographs as either Cat or Dog. This is an example of:

- a) Supervised learning
- b) Unsupervised learning
- c) Reinforcement learning
- d) Data cleaning

19. Which framework focuses on maximum benefit for the greatest number of people?

- a) Virtue-based
- b) Right-based
- c) Utility-based
- d) Privacy-based

20. An AI system protects a user's personal information because privacy is a person's right. Which framework is this?

- a) Virtue-based
- b) Right-based
- c) Utility-based
- d) None

### SECTION – B (SUBJECTIVE TYPE QUESTIONS)

**Short Answer type Question (20–30 words)**

**(6 × 2 = 12)**

- 21. Write any two advantages and disadvantages of Written Communication.
- 22. Explain the difference between Data Exploration and Data Acquisition.
- 23. Explain and draw Problem Statement Template.
- 24. Define Ethical framework.
- 25. Rishika works for a company wherein she was assigned the task of developing a project using AI project cycle. Help her list the stages that she must go through to develop the project.
- 26. Differentiate between Machine Learning (ML) and Deep Learning (DL).

**Long Answer type Question**

**(4 × 2 = 8)**

- 27. What is an Artificial Neural Network? Briefly explain all the layers of ANN.
- 28. Explain the following with example:
  - i) Classification Model
  - ii) Association Rule Model

**\*\*\*ALL THE BEST\*\*\***