

# KENDRIYA VIDYALAYA SANGATHAN KOLKATA REGION

## CLASS VIII : ARTIFICIAL INTELLIGENCE

### SESSION ENDING EXAM : 2025-26

(MM : 50)

TIME : 2 Hrs

General Instructions:

1. All questions are compulsory.
2. Read the questions carefully before answering.
3. Marks are indicated against each question.
4. Write answers neatly and in points wherever required.

#### Section A - Objective Type Questions (1 × 10 = 10 Marks)

##### Q1. Fill in the blanks: (1 × 5 = 5)

- a) The first stage of AI Project Cycle is \_\_\_\_\_.
- b) Data collected in numbers is called \_\_\_\_\_ data.
- c) An AI system that can perform any intellectual task like humans is called \_\_\_\_\_.
- d) Identifying patterns in data is part of \_\_\_\_\_.
- e) Moral principles guiding AI development are known as \_\_\_\_\_.

##### Q2. Multiple Choice Questions: (1 × 5 = 5)

- a) Which of the following is NOT a stage of AI Project Cycle?
  - i) Problem Scoping
  - ii) Data Acquisition
  - iii) Marketing
  - iv) Modelling
- b) Which type of data includes images and videos?
  - i) Structured data
  - ii) Numerical data
  - iii) Unstructured data
  - iv) Binary data
- c) The 4W's Problem Canvas includes:
  - i) What, Why, When, Where
  - ii) Who, What, Where, Why
  - iii) Who, Which, Why, When
  - iv) What, Where, Which, Why
- d) AI used in face recognition systems mainly works on:
  - i) Sound data
  - ii) Image data
  - iii) Text data
  - iv) Numeric tables
- e) Bias in AI systems occurs due to:
  - i) Clean data
  - ii) Balanced datasets
  - iii) Incorrect or incomplete data
  - iv) High computing power

**Section B – Short Answer Questions (2 × 4 = 8 Marks)**

*Answer any FOUR questions.*

- Q3. Explain the term Artificial Intelligence. (2)
- Q4. Differentiate between Current AI and General AI. (2)
- Q5. What is Data Exploration? Why is it important? (2)
- Q6. Mention any two applications of AI in healthcare. (2)
- Q7. State any two ethical concerns related to AI. (2)

**Section C – Answer in Detail (4 × 5 = 20 Marks)**

- Q8. Explain the stages of AI Project Cycle in sequence. (4)
- Q9. What is Data Acquisition? Explain any two types of data with examples. (4)
- Q10. Why is Problem Scoping important in AI development? (4)
- Q11. Discuss the impact of AI on the job market. (4)
- Q12. How can AI help in solving environmental issues? Explain with examples. (4)

**Section D – Case Study Based Questions (2 × 4 = 8 Marks)**

Q13. Case Study: Smart Attendance System (4)

A school wants to install a smart attendance system using facial recognition to mark attendance automatically.

- a) Identify the problem being solved. (1)
- b) Mention two types of data required. (1+1)
- c) State two ethical concerns involved in this system. (1+1)

Q14. Case Study: AI for Waste Management (4)

A city plans to use AI-enabled sensors in dustbins to detect garbage levels and optimize garbage collection routes.

- a) Which stage of AI Project Cycle will involve collecting garbage data? (1)
- b) How will modelling help in this project? (2)
- c) Mention one benefit of using AI in waste management. (1)

**Section E – Long Answer Question (4 Marks)**

Q15. Define AI Ethics. Explain its role in shaping responsible AI development with examples. (4)