



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

Term – I Examination: 2026-27 Artificial Intelligence – Set 1

Class: VIII

Time: 2 hr.

Date: 12-09-2026

Max Marks: 50

General Instructions:

The Question Paper is divided into three sections Section A to D.

- Section A has 25 questions, out of which 21 has to attempt and carries 1 mark each.
- Section B has 10 questions, out of which 6 has to attempt and carries 2 marks each.
- Section C has 7 question, out of which 3 has to attempt and carries 3 marks each.
- Section D has 3 questions, out of which 2 has to attempt and carries 4 marks.

Section A – Objective Type Questions

Q1. Choose and write the correct answer. Answer any eleven questions. [11 X 1 = 11]

1. The outcome of a project, which is a clear, defined goal or a specific result, is called a:
a) Task b) Milestone c) Deliverable d) Constraint
2. The 4Ws Problem Canvas is a common framework used in which phase of the AI project /cycle?
a) Evaluation b) Deployment c) Problem Scoping d) Data Modelling
3. In the AI project Cycle, during which phase do we build and train the model?
a) Evaluation b) Deployment c) Problem Scoping d) Data Modelling
4. The 'Why?' question in the 4Ws Problem Canvas aims to clarify:
a) The specific AI techniques to be used.
b) The historical background.
c) The importance of the solving the problem and benefits.
d) The technical limitations of existing solutions.
5. What is the useful tool for problem scoping that helps you break down an issue into manageable parts by asking specific questions?
a) 4Ws Problem Canvas c) Solution Design Buleprint
b) AI Algorithm Selector d) Data Feature Mapper
6. The foundational phase of AI project Cycle is:
a) Solution Deployment c) Model Training
b) Decision Tree d) Problem Scoping
7. What name is given to the process of understanding the reliability of the model?
a) Assessment b) Evaluation c) Overview d) Amalgamation

8. What name is given to the data that is significantly different from rest of the data set?
- a) Rarity b) Commonality c) Outlier d) Orthogonal
9. What type of AI model uses series of IF-THEN rules.
- a) Layered system c) Learning Based system
b) Rule based system d) None of the above
10. AI Bias is defined as the act of:
- a) Collecting personal data c) Developing data for ML
b) Favouring a person group of people unfairly d) Human centric models
11. What is one of the key features of integrating ethics into AI solutions?
- a) Creating Biasness c) Optimising profits of the business
b) The data safe AI programs d) Unintended consequences
12. What does Ethics serve as in daily life?
- a) Legal framework b) Moral compass c) Social hierarchy d) Visiting Temple daily
13. The term 'Machine Learning' was coined by:
- a) John McCarthy b) Alan Turing c) Arthur Samuel d) Rossum
14. Which machine learning technique uses feedback-based technique with reward and penalty?
- a) Supervised b) Unsupervised c) Reinforcement d) Deep Learning
15. Spam Filters is an example of which type of machine learning?
- a) Supervised b) Unsupervised c) Reinforcement d) Deep Learning

Q2. True or False

[5 X 1 = 5]

1. The initial phase of AI Project cycle is Data Explorer.
2. Data should be collected from random websites during Data Acquisition phase.
3. An AI Model is needed for the functioning of AI.
4. An ethics is the study of what is right and what is wrong.
5. Machine Learning means learning all about machine's mechanics.

Q3. Assertion and Reasoning

[5 X 1 = 5]

Directions: Choose the correct option from the following:

- **(a)** Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A).
- **(b)** Both Assertion (A) and Reason (R) are true, but Reason (R) is NOT the correct explanation of Assertion (A).
- **(c)** Assertion (A) is true, but Reason (R) is false.
- **(d)** Both Assertion (A) and Reason (R) are false.

1. **Assertion (A):** Collecting data through surveys and questionnaires is an example of acquiring data from a primary source.
Reason (R): Primary sources involve gathering fresh, original data collected specifically for your project by the project team itself.
2. **Assertion (A):** After an AI model is deployed, continuous monitoring of its performance is essential.
Reason (R): This monitoring helps ensure that the model's performance doesn't degrade over time due to changes in data and indicates when retraining or updates might be necessary.
3. **Assertion (A):** Data exploration is a crucial phase that directly informs the subsequent phases of the AI project cycle.
Reason (R): This phase allows a data scientist to identify biases in the data, which is critical for building a fair and ethical AI system
4. **Assertion (A):** Ethical AI should be designed to be "human-centric".
Reason (R): To be ethical, AI solutions must prioritize technological progress and global economic contribution over individual well-being
5. **Assertion (A):** The online chess game utilizes a form of Machine Learning to achieve better performance than simply playing randomly.
Reason (R): This AI works by being trained to look for patterns in the player's history and uses that pattern to predict the player's next move.

Section B – Short Answer Questions

Q4. Write the following questions answer in 3-4 sentences. Write any six answers. [6 X 2 = 12]

1. Give four properties that a project always has.
2. Write and explain any two characteristics that define a project.
3. Why Data Acquisition is important?
4. Mention the process of data acquisition.
5. Explain the Modelling stage in AI Project cycle.
6. How Evaluation works?
7. Mention any four examples where AI Bias has happened.
8. Write any three disadvantages of AI implementations on our daily life.
9. What is Machine Learning?

Section C – Long Answer Questions

Q5. Answer any three from the following questions in 5-6 sentences. [3 X 3 = 9]

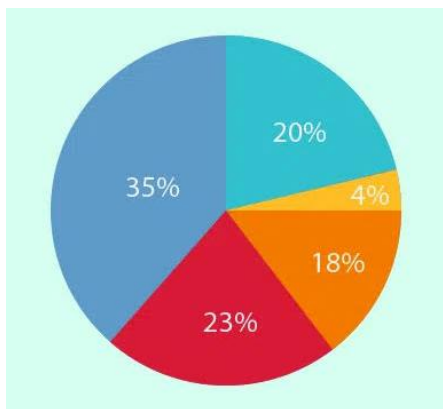
1. Describe the any three stages of the AI Project Cycle.
2. Describe any three types of data needed for AI Projects.
3. Differentiate between Rule-based and learning based approach for AI Modelling.
4. What is AI Ethics? Write any three importance of AI Ethics.
5. What we must consider while integrating Ethics in AI Projects?
6. What are the applications of Machine Learning? Write any three with explanation.
7. What are different types of machine learning? Explain in the terms of How it Works?

Section D – Application Based/Picture Based Questions

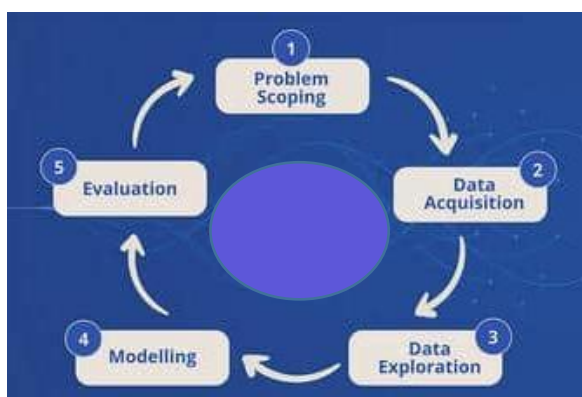
Q6. Do as directed. Attempt any two complete question.

[2 X 4 = 8]

1. Explain how Aeroponics Plant Growth Project represents a "Project Cycle," and describe its four sequential steps using the concept of AI Project Cycle concept.
2. Identify the following diagram explain when this type of diagram is utilised in which phase of AI Project Cycle in 5-6 sentences?



3. Identify the following image and explain it's steps in 7-8 sentences:

[illegible]