

SAMPLE ARTIFICIAL INTELLIGENCE QUESTION PAPER-CLASS 10

Subject: Artificial Intelligence

Time: 2 Hours

Total Marks: 80

Instructions:

All questions are compulsory.

Answer each question in the space provided.

Read each question carefully before answering.

Write your answers neatly and legibly.

Section A: Multiple Choice Questions (MCQs) [20 Marks]

What does AI stand for?

- a) Advanced Intelligence
- b) Artificial Intelligence
- c) Automated Interaction
- d) Algorithmic Integration

Which of the following is an example of a machine learning algorithm?

- a) Sorting algorithm
- b) Linear equation
- c) Decision tree
- d) Array data structure

What is the purpose of a neural network in AI?

- a) To simulate human intelligence
- b) To process natural language
- c) To perform logical operations
- d) To analyze data patterns

Which AI technique is commonly used for image recognition?

- a) Natural Language Processing
- b) Genetic Algorithms
- c) Expert Systems
- d) Deep Learning

What is the primary goal of AI in robotics?

- a) To replace human workers
- b) To mimic human behavior
- c) To automate repetitive tasks
- d) To achieve autonomous decision-making

Section B: Short Answer Questions [30 Marks]

6. Define artificial intelligence (AI) and explain its significance in modern technology.
7. Describe the difference between supervised and unsupervised learning in machine learning.
8. Explain the concept of natural language processing (NLP) and provide examples of its applications.
9. What are neural networks? How are they used in AI systems?
10. Discuss the ethical considerations associated with the use of AI in society.

Section C: Long Answer Questions [30 Marks]

11. Explain the process of training a machine learning model using a supervised learning algorithm.
12. Discuss the impact of AI on various industries such as healthcare, finance, and transportation.
13. Describe the Turing Test and its significance in the field of artificial intelligence.
14. Analyze the potential benefits and risks of implementing autonomous AI systems in everyday life.
15. Propose a solution to mitigate the ethical concerns surrounding the use of AI in decision-making processes.