



B.K. BIRLA CENTRE FOR EDUCATION

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

ANNUAL EXAMINATION: 2025-26 (SET-02) ARTIFICIAL INTELLIGENCE (843)

Class: XI /SET-02

Date: 18-02-2026

Admission No. :

Time : 2 Hrs.

Max Marks: 50

Roll No. :

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 05 question.
 - ii. Marks allotted are mentioned against question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 16 questions.
 - ii. A candidate has to do 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q.(1) Answer any 4 out of the given 6 questions on Employability Skills.

(4 x 1 = 4)

- i. Being able to refuse politely without offending others is an important quality of being:
 - a. submissive
 - b. confident and assertive
 - c. indirectly aggressive
 - d. openly aggressive
- ii. Which of the following is NOT a form of spoken communication?
 - a. Panel discussion
 - b. Phone conversation
 - c. Online video meeting
 - d. Email message
- iii. When both the idea and its execution are creative and new, the business opportunities are likely to:
 - a. reduce
 - b. grow
 - c. remain unchanged
 - d. first reduce and then grow
- iv. Which type of business activity focuses on converting raw materials into usable finished goods?
 - a. Start-up business
 - b. Buying and selling business
 - c. Production-based business
 - d. Customer service business

- v. Environmental (green) policies mainly aim to ensure a respectable life and proper employment for:
- a. Business organizations
 - b. Different sections of society
 - c. Only workers
 - d. Only business owners
- vi. Which of the following government initiatives focuses on increasing and protecting forest areas?
- a. Clean India Campaign
 - b. Green India Mission
 - c. Sustainable Farming Mission
 - d. Light for All Campaign

Q.(2) Answer any 5 out of the given 6 questions.

(5 x 1 = 5)

- i. Technology that combines computer science and large sets of data to solve problems:
- a. Deep Thinking
 - b. Machine Learning
 - c. Artificial Intelligence
 - d. Deep Neural Network
- ii. The first artificial intelligence program is _____
- a. Turing Test
 - b. Logic Theorist
 - c. Python
 - d. Linux
- iii. _____ can be structured, semi-structured and unstructured.
- a. Data
 - b. Facts
 - c. Information
 - d. Concepts
- iv. What is a key responsibility of a Geographic Information Systems (GIS) Specialist?
- a. Developing AI ethics policies
 - b. Building and maintaining robots
 - c. Analysing spatial data using AI
 - d. Writing shell scripts
- v. Which skill is crucial for creating and training neural networks in AI?
- a. Shell scripting
 - b. Deep learning
 - c. Data visualisation
 - d. Communication skills
- vi. Which AI job role involves ensuring responsible development of AI technologies?
- a. AI Engineer
 - b. Data Scientist
 - c. AI Ethicist
 - d. Robotics Engineer

Q.(3) Answer any 5 out of the given 6 questions.

(5 x 1 = 5)

- i. What is an example of a valid identifier in Python?
- a. 1variable
 - b. my-variable
 - c. calculate_sum
 - d. my@var
- ii. Identify the relational operator from the following:
- a. and
 - b. >=
 - c. +
 - d. **
- iii. What is the type of the variable x after the following code executes?
- ```
x = None
```
- a. int
  - b. None
  - c. float
  - d. bool
- iv. What does the "Says quadrant in an Empathy Map represent?
- a. The user's emotional state
  - b. The actions of the user
  - c. What the user says aloud in an interview
  - d. What the user is thinking
- v. Which quadrant of the Empathy Map would capture the user's actions?
- a. Says
  - b. Thinks
  - c. Does
  - d. Feels
- vi. What is a key factor for a country's development and prosperity according to Goal 3?
- a. Economic growth
  - b. Healthy citizens
  - c. Political stability
  - d. Technological advancement

**Q.(4) Answer any 5 out of the given 6 questions.**

**(5 x 1 = 5)**

- i. In a dataset with no repeating values, what can be said about the mode?
- a. There is one mode
  - b. There are multiple modes
  - c. There is no mode
  - d. There is a mode, but it cannot be calculated

- ii. What is the purpose of data visualisation?
  - a. To make data analysis more complicated
  - b. To simplify the interpretation of complex data
  - c. To hide information from the user
  - d. To increase the size of datasets
- iii. Which function is used to set the size of the plot in Matplotlib?
  - a. Title
  - b. xlabel
  - c. figure
  - d. show
- iv. Which of the following is NOT a common machine learning method?
  - a. Decision trees
  - b. Neural networks
  - c. Support vector machines
  - d. Polynomial regression
- v. Which type of learning does a Virtual Personal Assistant (VPA) like Siri or Alexa use?
  - a. Supervised learning
  - b. Unsupervised learning
  - c. Reinforcement learning
  - d. All of these
- vi. In regression analysis, what type of events are typically forecasted?
  - a. Categorical
  - b. Continuous
  - c. Binary
  - d. Discrete

**Q.(5) Answer any 5 out of the given 6 questions.**

**(5 x 1 = 5)**

- i. What field of study is crucial for understanding and improving human language communication?
  - a. Mathematics
  - b. Linguistics
  - c. Chemistry
  - d. Physics
- ii. Which of the following is an example of a virtual assistant powered by NLP?
  - a. Google Search
  - b. Siri
  - c. Microsoft Word
  - d. Photoshop
- iii. What is the first step in preparing a winning Project Debate using AI?
  - a. Reasoning
  - b. Understanding
  - c. Interacting
  - d. Learning
- iv. Why is fairness critical in the context of AI ethics?
  - a. To accelerate the development of AI technologies
  - b. To ensure equal distribution of AI resources
  - c. To maximise AI's impact on environmental sustainability
  - d. To prevent bias and ensure equitable treatment of individuals
- v. What is the purpose of the Moral Machine?
  - a. To develop autonomous vehicles
  - b. To explore ethical dilemmas in AI
  - c. To create interactive decision-making scenarios
  - d. To quantify societal expectations about AI ethics
- vi. How do AI and data collaboration benefit decision-making?
  - a. By replacing human judgment entirely
  - b. By automating all decision-making processes
  - c. By identifying patterns and providing insights
  - d. By increasing the complexity of decision-making tasks

## **SECTION B: SUBJECTIVE TYPE QUESTIONS**

**Answer any 3 out of the given 5 questions on Employability Skills.**

**(3 x 2 = 6)**

**Answer each question in 20-30 words.**

- Q6. List any two effective steps of time management.
- Q7. What is goal setting?
- Q8. How many text alignment are there? Name them.
- Q9. What is the use of Header?
- Q10. What do you mean by the attitude of an entrepreneur?

**Answer any 4 out of the given 6 questions in 20-30 words each.**

**(4 x 2 = 8)**

Q11. What do you mean by NLP?

Q12. What are the traits required for an AI Professional?

Q13. Define a primary data source.

Q14. What is binary classification?

Q15. What is Lexical analysis?

Q16. What is AI bias?

**Answer any 3 out of the given 5 questions in 50-80 words each.**

**(3 x 4 = 12)**

Q17. Explain the importance of soft skills for AI professionals and how they contribute to successful AI projects.

Q18. Explain any four features of Python.

Q19. Explain 5W and 1H problem canvas.

Q20. Explain the steps of data pre-processing.

Q21. Explain the classification process.

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