



B.K. BIRLA CENTRE FOR EDUCATION

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



TERM 1 EXAMINATION (2026-27)
ARTIFICIAL INTELLIGENCE (843)
SET - 2

Class : XI (SCIENCE/COMMERCE/ARTS)

Date :09/09/26

Admission No. :

Time : 3 hrs.

Max Marks : 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 20 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 (4 + 16 =) 20 questions, a candidate has to answer (4 + 11 =) 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 04 questions.
 - ii. Marks allotted are mentioned against each 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 11 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:

(4 x 1 = 4)

(i) Which of the following is an example of non-verbal communication?

- (a) Telephone call (b) Body language
(c) E-mail (d) Business letter

(ii) Which of the following is the correct order of the elements of the communication cycle?

- (a) Sender - Message - Channel - Receiver - Feedback
(b) Message - Sender - Feedback - Receiver - Channel
(c) Receiver - Channel - Sender - Message - Feedback
(d) Channel - Feedback - Sender - Receiver - Message

(iii) In the acronym 'SMART' used for goal setting, the letter 'A' stands for

- (a) Attractive (b) Achievable (c) Active (d) Advanced

(iv) Which of the following is an example of an operating system?

- (a) MS Word (b) Ubuntu (c) Google Chrome (d) MS Excel

(v) A market survey is conducted by an entrepreneur mainly to

- (a) increase the rate of tax (b) understand the needs of customers
(c) recruit new employees (d) design the logo of the firm

(vi) In a word processor, which feature is used to display the same text at the top of every page of a document?

- (a) Header (b) Footnote (c) Hyperlink (d) Bookmark

Q.(2) Answer any 7 out of the given 8 questions:

(7 x 1 = 7)

- (i) _____ extracts information from the spoken and written words using algorithms.
(a) Machine learning (b) Computer vision
(c) Data science (d) Natural language processing
- (ii) _____ helps develop intelligent machines and software that learn, function, and react like humans.
(a) Deep Learning (b) Machine Learning
(c) Artificial Intelligence (d) Robotics
- (iii) What is the primary goal of data science?
(a) Automating tasks (b) Extracting meaningful insights from data
(c) Enhancing computer vision (d) Developing machine learning algorithms
- (iv) Which type of AI algorithm mimics the way the human brain processes data?
(a) Supervised learning (b) Unsupervised learning
(c) Reinforcement learning (d) Deep learning
- (v) What type of machine learning algorithm focuses on finding hidden patterns or structures in data without explicit guidance?
(a) Supervised learning (b) Unsupervised learning
(c) Reinforcement learning (d) Deep learning
- (vi) Which type of Machine Learning trains an agent through a system of rewards and penalties?
(a) Supervised Learning (b) Unsupervised Learning
(c) Reinforcement Learning (d) Transfer Learning
- (vii) Which domain of AI interprets numerical pixel arrays that represent colour and intensity values?
(a) Natural Language Processing (b) Computer Vision
(c) Data Science (d) Expert Systems
- (viii) State whether the following statement is True or False:
A microwave oven that heats food using a fixed timer is an example of an AI system.

Q.(3) Answer any 7 out of the given 8 questions:

(7 x 1 = 7)

- (i) Which professional designs and manages data warehouse architecture and reporting dashboards?
(a) Business Intelligence Developer (b) AI Ethicist
(c) Computer Vision Engineer (d) Precision Agriculture Specialist
- (ii) An NLP Engineer is primarily engaged in developing
(a) chatbots and voice-based assistants (b) hydraulic machines
(c) satellite hardware (d) textile looms
- (iii) A GIS Specialist who maps terrain using satellite imagery works in which sector?
(a) Textile and Design (b) Geospatial and Defence
(c) Banking (d) Retail
- (iv) Which AI job role involves ensuring responsible development of AI technologies?
(a) AI Engineer (b) AI Ethicist (c) Data Scientist (d) Robotics Engineer
- (v) An AI-Powered Fabric Design Specialist is employed in which industry?
(a) Textile and Design (b) Automobile
(c) Healthcare (d) Agriculture
- (vi) Big-data frameworks such as Hadoop and Spark are chiefly used by a
(a) Data Scientist (b) AI Ethicist
(c) Virtual Nurse Assistant (d) Fraud Detection Analyst
- (vii) An Autonomous Vehicle Engineer who develops self-driving systems belongs to which sector?
(a) Automobile (b) Retail and E-commerce
(c) Banking (d) Agriculture
- (viii) State whether the following statement is True or False:

An Inventory Management Specialist is an AI job role in the retail and e-commerce sector.

Q.(4) Answer any 6 out of the given 8 questions:

(6 x 1 = 6)

(i) What will be the output of the following expression?

`2 ** 3`

- (a) 6 (b) 8 (c) 9 (d) 23

(ii) Which of the following is a Python keyword?

- (a) My_Variable (b) while (c) 123_variable (d) Print_Data

(iii) Which list operation removes the last element?

- (a) POP (b) REMOVE (c) DEL (d) CLEAR

(iv) What will be the output of: `print(3 > 2 and 2 > 5)`

- (a) True (b) False (c) Error (d) None of these

(v) Which keyword is used to check a condition in Python?

- (a) check (b) if (c) condition (d) when

(vi) What is the purpose of indentation in Python?

- (a) To make the program colourful (b) To define blocks of code
(c) To declare variables (d) To end the program

(vii) What happens if the condition of a while loop never becomes false?

- (a) The loop runs once (b) The program stops automatically
(c) An infinite loop may occur (d) Python gives a syntax error

(viii) State whether the following statement is True or False:

Punctuators such as `:`, `( )` and `[ ]` form one of the categories of Python tokens.

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 4 questions:

(3 x 2 = 6)

Q.(5) What is meant by active listening?

2

Q.(6) What is stress? Name any two stress management techniques.

2

Q.(7) State any two advantages of using a word processor over handwritten documents.

2

Q.(8) What is meant by a business idea? Give one example.

2

Answer any 4 out of the given 6 questions:

(4 x 2 = 8)

Q.(9) Differentiate between Machine Learning and Deep Learning.

2

Q.(10) Write any two rules for naming an identifier in Python.

2

Q.(11) State any two responsibilities of a Data Scientist.

2

Q.(12) Name any two AI job roles in the agriculture sector.

2

Q.(13) Differentiate between the `'=='` operator and the `'='` operator in Python.

2

Q.(14) What is type casting in Python? Explain with example.

2

Answer any 4 out of the given 6 questions in 50 - 80 words each.

(4 x 3 = 12)

Q.(15) Differentiate between Cognitive Computing and Artificial Intelligence.

3

- | | |
|---|----------|
| Q.(16) Compare Artificial Narrow Intelligence, Artificial General Intelligence and Artificial Super Intelligence. | 3 |
| Q.(17) Explain the duties of a Computer Vision Engineer and state the key technical skills required for this role. | 3 |
| Q.(18) Explain any three industries in which AI is applied, naming one AI job role in each. | 3 |
| Q.(19) Explain the if, if-else and if-elif-else decision-making statements in Python with the syntax of each. | 3 |
| Q.(20) Write a program to print the numbers from 1 to 10 with their squares. | 3 |

***** ALL THE BEST! *****