



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 - 1

Class : XI (SCIENCE/COMMERCE/ARTS)

Time : 3 hrs.

Date :09/09/26

Max Marks : 50

Admission No. :

Roll No. :

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 a barrier to effective communication?
- (a) Clear pronunciation (b) Use of unfamiliar jargon
(c) Eye contact (d) Active listening
- (ii) In a formal business letter, the part that carries the main message is called the
- (a) Salutation (b) Body
(c) Complimentary close (d) Reference line
- (iii) Which of the following is a healthy technique for managing stress?
- (a) Skipping meals (b) Regular physical exercise
(c) Avoiding sleep (d) Postponing all work
- (iv) 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
- (v) Which of the following is a function of an entrepreneur?
- (a) Avoiding every kind of risk (b) Bearing risk and organising resources
(c) Working only as a paid employee (d) Paying taxes on behalf of others
- (vi) Sustainable development means meeting the needs of the present without compromising the ability of to meet their own needs.
- (a) Industries (b) Future generations
(c) Governments (d) Consumers

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

(7 x 1 = 7)

- (i) The term “Artificial Intelligence” was coined by
(a) Alan Turing (b) John McCarthy
(c) Ronald Fisher (d) Guido van Rossum
- (ii) Which domain of AI allows a computer to understand, interpret, and generate human language?
a) Computer Vision b) Natural Language Processing
c) Expert Systems d) Data Mining
- (iii) **Data Science** is mainly concerned with:
a) Building robots b) Analyzing and interpreting large volumes of data
c) Designing operating systems d) Computer networking
- (iv) Which type of Machine Learning uses **labelled data** to train the model?
a) Supervised Learning b) Unsupervised Learning
c) Reinforcement Learning d) Deep Learning
- (v) Which of the following is NOT an example of an AI system?
(a) Voice assistant (b) Self-driving car
(c) Pocket calculator (d) Recommendation engine
- (vi) Voice assistants such as Siri and Alexa belong to which category of AI?
(a) Artificial Narrow Intelligence (b) Artificial General Intelligence
(c) Artificial Super Intelligence (d) Cognitive Computing
- (vii) **Reinforcement Learning** works by:
a) Giving the model labelled data to learn
b) Providing no feedback to the model
c) Using rewards and penalties to guide learning
d) Randomly adjusting the model without data
- (viii) State whether the following statement is True or False:
Deep Learning is a subset of Machine Learning.

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

(7 x 1 = 7)

- (i) 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
- (ii) Which AI professional audits algorithms for demographic bias and promotes fairness and transparency?
(a) AI Ethicist (b) Data Scientist
(c) NLP Engineer (d) Computer Vision Engineer
- (iii) A Precision Agriculture Specialist mainly uses AI-powered to monitor crop health.
(a) drones (b) chatbots
(c) dashboards (d) spreadsheets
- (iv) What role does a Machine Learning Engineer primarily focus on?
(a) Designing robotic hardware (b) Creating and training machine learning models
(c) Ensuring ethical use of AI (d) Conducting market analysis
- (v) Which AI job role involves ensuring responsible development of AI technologies?
(a) AI Engineer (b) AI Ethicist (c) Data Scientist (d) Robotics Engineer
- (vi) Which pair of tools is typically used by a Business Intelligence Developer to build visual dashboards?
(a) Tableau and Power BI (b) TensorFlow and Keras
(c) Hadoop and Spark (d) NumPy and Pandas
- (vii) Detecting fraudulent transactions using AI models in the banking sector is the duty of a
(a) Fraud Detection Analyst (b) Virtual Nurse Assistant

- (c) GIS Specialist (d) Textile Quality Control Inspector

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

The role of a Virtual Nurse Assistant belongs to the healthcare 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?

16 // 3

- (a) 5 (b) 5.33 (c) 6 (d) 1

(ii) Which of the following is a valid Python identifier?

- (a) 2marks (b) total-marks (c) total_marks (d) for

(iii) Which operator is used to check whether two variables are equal or not?

- (a) == (b) is (c) != (d) in

(iv) The statement range(1, 10, 2) generates the sequence

- (a) 1, 2, 3, 4, 5 (b) 1, 3, 5, 7, 9
(c) 2, 4, 6, 8 (d) 1, 10, 2

(v) Which list operation removes the last element?

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

(vi) In Python, mode allows the user to enter commands one at a time for quick experimentation.

- (a) Script (b) Interactive (c) Compile (d) Debug

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

Python is a dynamically typed language, so variable types need not be declared before use.

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

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

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 4 questions:

(3 x 2 = 6)

Q.(5) State any two barriers to effective communication. 2

Q.(6) What is meant by self-motivation? Name its two types. 2

Q.(7) State any two ways of maintaining a computer system for better performance. 2

Q.(8) Who is an entrepreneur? State any one quality of a successful entrepreneur. 2

Answer any 4 out of the given 6 questions:

(4 x 2 = 8)

Q.(9) Define Artificial Intelligence. 2

Q.(10) Differentiate between Artificial Narrow Intelligence (ANI) and Artificial General Intelligence (AGI). 2

Q.(11) What is Deep Learning? 2

Q.(12) State any two technical skills required by a Machine Learning Engineer. 2

Q.(13) What is a token in Python? Name any two categories of tokens. 2

Q.(14) Write any two rules for naming an identifier in Python. 2

Answer any 4 out of the given 6 questions:

(4 x 3 = 12)

Q.(15) Explain any three application of AI. 3

- | | |
|---|----------|
| Q.(16) Explain the three domains of Artificial Intelligence, giving one real-world application of each. | 3 |
| Q.(17) Explain the core function of an AI Ethicist and state the qualifications required for this role. | 3 |
| Q.(18) Explain the importance of Soft skills for AI professionals and how they contribute to successful AI projects. | 3 |
| Q.(19) Explain any three features of Python. | 3 |
| Q.(20) Write a Python program to print a table of 15 with proper format. | 3 |

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