



B.K. BIRLA CENTRE FOR EDUCATION

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

ANNUAL EXAMINATION 2025-26 ARTIFICIAL INTELLIGENCE (SET 02)

Class: VI

Date: 18-03-2026

Name:

Duration: 2 hrs.

Max Marks: 50

Exam No. :

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 19 questions in two sections: Section A & Section B.
3. Section A has Objective type questions (MCQ, Fill in the blanks, Match the following) whereas Section B contains Subjective type questions.
4. All questions of a particular section must be attempted in the correct order.
5. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 03 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
6. **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.

MARKING SCHEME

SECTION A: OBJECTIVE TYPE QUESTIONS

I. Multiple Choice Questions: (Answer any twelve)

(12 X 1 = 12)

- (1) Which of the following is a pictorial representation of an algorithm ?
(a) Pseudocode (b) Program (c) **Flowchart** (d) Algorithm
- (2) What symbol is used to represent output in a flowchart ?
(a) Circle (b) Square (c) **Parallelogram** (d) Kite shaped box
- (3) When can algorithms be used ?
(a) Only with computers (b) Only when programming
(c) Only with flowcharts (d) **Any time to design solutions to problems**
- (4) Which of these animals can identify itself when seen in a mirror ?
(a) Dogs (b) Elephants (c) Tiger (d) **Dolphins**
- (5) Due to which of these abilities has human beings emerged as the dominant species on Earth?
(a) Great strength (b) Great speed
(c) Great size (d) **High intelligence**
- (6) A home equipped with lighting, heating and electronic devices that can be controlled remotely

by smartphone or computer is called a

- (a) **Smart home** (b) Intelligent home (c) Sustainable home (d) Sensor home

(7) Which technology does Bloomberg use to help make quick sense of complex financial reports ?

- (a) **Cyborg technology** (b) Access
(c) Excel (d) J2EE

(8) What is the function of the “Move 10 steps” command block ?

- (a) Runs the blocks inside over and over (b) **Move sprite forward**
(c) Runs script below when specified key is pressed
(d) None of the above

(9) What will happen if we place the instruction blocks in the Scratch in the wrong order ?

- (a) The program will start working slowly (b) **The program will not work well**
(c) The program will terminate (d) The speed of the program will increase

(10) A sprite can have one or more, allowing it to change its appearance as an application executes.

- (a) **Appearances** (b) outfits (c) costumes (d) disguises

(11) The cat in Scratch is an example of

- (a) Avatar (b) **Sprite** (c) Template (d) Character

(12) is when someone uses your personal data to impersonate you, typically to steal from you.

- (a) Cyberstalking (b) Cyberbullying (c) **Identity Theft** (d) Spoofing

(13) The short form of malicious software is

- (a) **Malware** (b) Malsoft (c) Maliware (d) Malisoft

(14) Which one of the following is susceptible to radiation and infection ?

- (a) **Human** (b) Robots
(c) Both (a) and (b) (d) None of the above

(15) Robot is derived from Czech word

- (a) Rabota (b) **Robota**
(c) Rebotat (d) Ribota

II. State True/False : (Answer any eight)

(8 X 1 = 8)

- (1) False
(2) True
(3) True
(4) True
(5) False.
(6) True
(7) False
(8) False
(9) True
(10) False

III. Fill in the blanks. (Answer any four)

(4 X 1 = 4)

- (1) Google glass
(2) Virtual
(3) Dulux Visualizer
(4) IKEA Place
(5) Filters

SECTION B: SUBJECTIVE TYPE QUESTIONS

IV. Short Answer Type Questions: (Answer any seven)

(7 X 2 = 14)

(1) Write an algorithm to bake a cake.

Ans. :

Example of Algorithm :

Step 1 : Take the ingredients

Step 2 : Mix ingredients

Step 3 : Pour ingredients mixture into a pan

Step 4 : Put it in an oven

Step 5 : Bake until ready

Step 6 : If ready, remove

Step 7 : Let it cool

Step 8 : Serve

(2) Differentiate between an Algorithm and Flowchart.

Ans. :

Algorithm	Flowchart
1. It is a step by step solution to the problem	1. It is also a step by step solution to the problem but in the pictorial form
2. In it, we use simple English	2. In it, we use a special symbol like an input, or output box
3. The algorithm provides either to the computer or to a human being an unambiguous instruction to solve a problem.	3. It provides a better understanding of existing and prepared methods and procedures and systems.

(3) Define Intelligence. Name any two animals that are much stronger than the strongest human.

Ans. :

Three animals that are much stronger than the strongest human are Tiger, Crocodile, Lion, Hyena, alligator and Elephant.

(4) Explain any two features of Intelligence.

Ans. :

- (a) Handling incomplete data
- (b) Handling contradictory data
- (c) Handling uncertain data
- (d) Handling heuristics
- (e) Ability to learn

(5) Artificial Intelligence is impacting the future of virtually every industry and every human being. Justify.

Ans. :

Artificial Intelligence is impacting the future of virtually every industry and every human being. AI has acted as the main driver of emerging technologies like big data, robotics and IoT, and it will continue to act as a technological innovator for the foreseeable future.

Transportation, Manufacturing, Healthcare, Education, Media, Customer Service etc. are sectors at the start of their AI journey. AI is indeed transforming the future of nearly every industry and every aspect of human life.

(6) Explain block coding.

Ans. :

Block based coding uses “blocks” of code which can be dragged and dropped onto a work environment and pieced together to make meaningful programs.

(7) Explain any two commands from the Looks Block in Scratch.

Ans. :

1. **Say:** Displays a speech bubble with text for a specified duration.
2. **Think:** Shows a thought bubble with text.
3. **Change Costume:** Switches the sprite's appearance to a different costume.
4. **Show/Hide:** Makes the sprite visible or invisible.
5. **Change Size:** Adjusts the sprite's size.
6. **Set Color Effect:** Applies visual effects like color changes to the sprite.

(8) Differentiate between Proxy and VPN.

Ans. :

Proxy and VPN : Proxy is a computer on a network that acts as computer middle man between your computer and the website. VPN is Virtual Private Network. VPN is a technique to add security and privacy to your network. It never shares IP address, location and other details of your computer.

(9) Explain at least two advantages and disadvantages each of a robot.

Ans. :

Advantages :

Cost effectiveness :

Increased productivity ;

Better quality assurance :

Workforce motivation

Robots are incapable of getting bored at work.

Robots are teleoperated

Disadvantages :

Potential job losses

Hiring skilled personnel

Over dependence on technology

Investment prices

Lack of analytical skills

Safety concerns
Robots cannot improvise.
Health issues may arise

(10) Explain the use of augmented reality in the field of beauty.

Ans. :

- (i) Cosmetic company Sephora uses AR technology to allow customers to try out different looks and eye, lips and cheek products as well as colours right on their own digital face.
- (ii) L'Oreal partnered with Perfect Corp. to integrate the brand's makeup collections into the YouCam Makeup app.
- (iii) Nyka's augmented reality beauty app allows users to take a photo of a makeup look and then try that exact look on their own face using AR.
- (iv) The Garnier Virtual Try On is a fun way to try out different hair colours from the comfort of your own home.

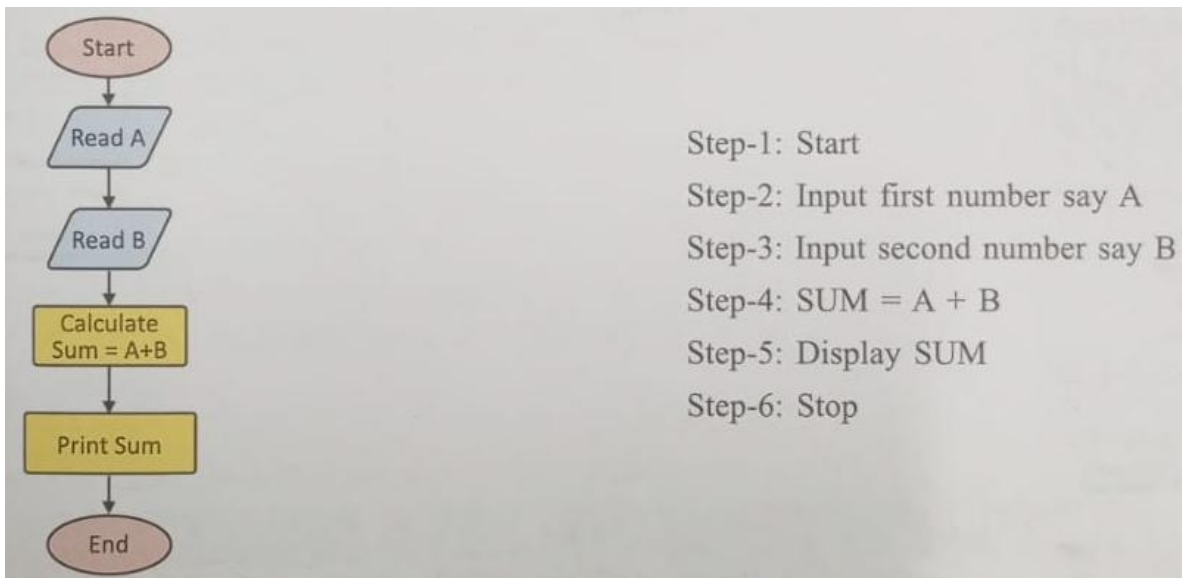
V. Long Answer Type Questions : (Answer any four)

(4 X 3 = 12)

(1) Draw flowchart for the following :

- (a) Sum of two numbers
- (b) Average of three numbers

Ans. :



(2) What is Intelligence. Define Human intelligence & Artificial intelligence.

Ans. : Intelligence allows us to imagine and use our experiences in life to solve problems.

Human Intelligence : It is a mental quality, that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment.

Artificial Intelligence : The ability to learn and understand, to solve problems and to make decisions.

(3) Describe intelligent security.

Ans. :

Intelligent security refers to the use of advanced technologies, such as artificial intelligence (AI), machine learning to enhance the protection of digital and physical assets. Get instant alerts on your phone in case your home is hit with fire, flood or any other disaster. Remotely control your locks from anywhere in the world.

Intelligent security represents the next generation of security technologies, leveraging AI and machine learning to enhance threat detection, automate responses, and predict potential risks.

(4) Explain any three blocks used in scratch.

Ans. :

Motion : These are used to move a sprite back and forth.

Looks : Used to change the look of the sprite.

Sounds : Tempo or sounds are used to control the sound flow in the program.

Events : Events handle trigger calls.

Controls : Conditional operators and loops are all in this category.

Sensing : It controls how to react whenever the mouse pointer hits the playground.

Operators : These are for the control and flow of arithmetic operations in the program.

Variables : You can declare the variables in your program using these blocks.

My Blocks : You can create your custom blocks from here.

(5) What is cyber crime ? Explain its classification.

Ans. : It can be defined as a crime done by the internet to cause an immeasurable loss to the individual, organization or the government.

Crime against an individual

Crime against an organization

Crime against Government

(6) Explain any three challenges faced in the field of Robotics.

Ans. :

New materials

Mapping environments

Loss of jobs

Threats to the security

Creating multipurpose robots

Existential threat to humanity

Ethical

Social

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