



B.K. BIRLA CENTRE FOR EDUCATION

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



PERIODIC TEST II 2025-26

ARTIFICIAL INTELLIGENCE – MARKING SCHEME

Class : VIII
Date : 07/11/2025
Admission No.:

Duration : 1 Hrs
Max. Marks : 25
Roll No.:

General Instructions:

Try to attempt all questions as per given order.

All questions are compulsory.

The Question Paper is divided into Three sections Section A to C.

- Section A has 11 questions attempt 11 and carry 1 mark each.
- Section B has 4 questions attempt 4 and carry 2 marks each.
- Section C has 2 questions attempt 2 and carry 3 marks each.

Section-A

Multiple Choice Questions: (Each 1 Mark)

1. The _____ has been called an “ultra-compact assistant robot” due to its small size and friendly demeanour.

- a. Roomba b. Sophia c. Wakamaru d. Nao

Ans: (c) Wakamaru

2. The RX-V100 responds with “All right” using AI speech when a user commands it to clean, and it “waggles” in response. The cleaning process then starts in Automatic Mode.

- a. Nao b. Wakamaru c. Sophia d. RX-V100

Ans: (d) RX-V100

3. _____ is an artificially intelligent robot toy with a strong personality and a range of emotions.

- a. a. Shophia b. Cozmo c. Nao d. Eurobot

Ans: (b) Cozmo

4. The US spacecraft Mariner 2 made history on December 14, 1962, when it successfully completed a flyby of:

- a. Mars b. Sun c. Mercury d. Venus

Ans: (d) Venus

5. The _____ vacuum cleaner robot is a little, self-contained cleaning robot that you can control to clean rugs, carpets, and floors.

- a. Roomba b. Sophia c. Nao d. Eagle 2.0

Ans: (a) Roomba

6. Among the top producers of weeding robots worldwide are Nexus Robotics and Naïo Technologies, both from:

- a. Spain b. USA c. Japan d. France

(d) France

7. What are the benefits of using humanoid robots?

- a. They can perform tasks that are dangerous for humans.
- b. They can work 24/7 without getting tired.
- c. They can be programmed to do repetitive tasks.
- d. All of the above.

Ans: All of the above

8. Which of the following is an example of a humanoid robot?

- a. Roomba b. Pepper c. Alexa d. Tesla

Ans: Pepper

9. Which of the following is not a feature of humanoid robots?

- a. AI b. Facial recognition c. Speech recognition d. Four legs

Ans: Four Legs

10. What are the current applications of humanoid robots?

- a. They are used in manufacturing and assembly.
- b. They are used in health care to assist patients.
- c. They are used in education to teach children.
- d. All of the above.

Ans: All of the above

11. What are some of the challenges associated with designing and building humanoid robots?

- a. Finding the right material to use.
- b. Making the robot walk and move like a human.
- c. Making the robot think like a human.
- d. All of the above

Ans: All of the above

Short Questions :

2

1. Give any two examples of Military Robots being used by India.

Ans: Daksh: Used to handle and diffuse explosives.

Netra: UAV used for surveillance.

Nishant: Used for reconnaissance and intelligence gathering.

2. How are robots used in the domestic sector? Explain with a few examples.

Ans: Robots help with household chores such as cleaning, vacuuming, and assistance.

Examples: Roomba (cleaning floors), Alexa (voice assistant), and robotic lawnmowers.

3. Write any two identification rules of an industrial robot.

Ans:

- Usually fixed at one place in factories.
- Performs repetitive tasks like welding, painting, assembling.
- High precision and speed.
- Designed for heavy-duty manufacturing.

4. State any two identification rules of a mobile robot.

Ans:

- It can move from one place to another without being fixed at a single location.
- Uses wheels, tracks, or legs for movement.
- Controlled by sensors and navigation systems.
- Works wirelessly or autonomously in dynamic environments.

SECTION – C

Long Questions:

1. Robots for education are intended for use in classrooms and other learning environments. Justify the statement by giving a three points.

Ans: They make learning interactive and fun.

Help in teaching coding and robotics.

Encourage creativity and problem-solving among students.

2. What is a humanoid robot? Give a few characteristics of a humanoid robot.

A humanoid robot is a robot designed to resemble and imitate human body structure and behavior.

Characteristics:

- Has a head, arms, and sometimes legs like humans.
- Can walk, talk, and interact socially.
- Uses AI for communication and learning.
- Equipped with sensors (vision, touch, sound).