# 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 – MARKING SCHEME

**Class : VIII** **Duration : 2 Hrs**
**Date : 16-03-2026** **Max. Marks : 50**
**Admission No.:** **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 : This section has 05 questions. Do as per the instructions given.
- Section B has 8 questions attempt 7 and carry 2 marks each.
- Section C has 6 questions attempt 4 and carry 3 marks each.

### SECTION A: OBJECTIVE TYPE QUESTIONS

**Q.(1) Multiple Choice Questions: (Any 6)** **(6 x 1 = 6)**

1. Face recognition in mobile phones is an example of:
A. Computer Vision * B. Word Processing C. Spreadsheet D. Painting
2. In Computer Vision, a picture is made up of tiny dots called:
A. Pixels * B. Files C. Codes D. Signals
3. Which of the following is an example of NLP?
A. Face recognition B. Google Translate * C. Barcode scanner D. Calculator
4. Among the top producers of weeding robots worldwide are Nexus and Naio Technologies, both from:
A. Spain B. USA C. Japan D. France *
5. Which of the following is not a feature of humanoid robots?
A. Artificial intelligence B. Facial Recognition
C. Speech recognition D. Four legs *
6. Which colour is typically used to indicate a visited hyperlink?
A. Blue B. Red C. Green D. Purple *
7. Which operator is used for string concatenation in Python?
A. * B. + C. / D. =
8. What will be the output?

```
a = "AI "
b = "Class"
print(a + b)
```

A. AIClass* B. AI_Class C. AI+Class D. Error

**Q.(2) Fill in the blanks: (Any 6)** **(6 x 1 = 6)**

1. A megapixel mean _____ pixels. (one million)

2. _____ analysis is the interpretation and classification of emotions. (sentiment)
3. The _____ has been called an "ultra compact assistant robot" due to its small size. (wakamaru)
4. _____ robots are designed to resemble human beings in form and function. (humanoid)
5. The ____ tag is used to create hyperlink. (a)
6. _____ attribute specifies the source of audio file. (src)
7. The statement used to skip one loop turn is _____. (continue)
8. if statements are used for _____ making. (decision)

**Q.(4) State True or False: (Any 6)** **(6 x 1 = 5)**

1. Computer Vision works only with text data. F
2. Auto-correct in smartphones uses NLP. T
3. Humanoid robots can use speech recognition. T
4. Python uses indentation to define blocks of code. T
5. if statement can be written without indentation. F
6. range(5) gives numbers from 1 to 4. F

**Q.(3) Match the following: (Any 6)** **(6 x 1 = 6)**

| Column A | Column B |
|---|---|
| 1. Inner eye | 1. NLP – 2 |
| 2. Email Filter | 2. Intelligent robot toy – 5 |
| 3. ABB YuMi | 3. Source attribute – 4 |
| 4. src | 4. Industrial robot – 3 |
| 5. Cozmo | 5. Computer Vision – 1 |
| 6. Jump Statement | 6. Returns the power of given number -7 |
| 7. Pow( ) | 7. Break Statement - 6 |

**Q.(3) Answer any 7 out of the given 8 questions** **(7 x 2 = 14)**

1. Differentiate between Pixel and Resolution.

Ans: **Pixel** (short form of "picture element") is a single point in a picture. They are smallest unit of information that make up a picture. It is the basic unit of programmable colour on a computer display.
On the monitor of a computer, a pixel is usually a square.
Every pixel has a colour and all the pixels together make a picture.
**Resolution**- It refers to the total number of pixels in a digital image. The pixel resolution is defined with a set of two numbers. The first number is width and the second number is height.
For example if the monitor resolution is 1280 x 1024, it means 1280 pixels from left to right and 1024 pixels from Top to Bottom.

2. What is Smart bot?

Ans: A **Smart bot** is a computer program that uses **Artificial Intelligence (AI)** to understand, learn, and make decisions like humans. It can improve its answers using experience and data.

3. Farmers in India can profit from using agricultural robots in a number of ways. Mention a few.

- Ans: Robots can help with seeding, watering, and harvesting.
- Drones can monitor crop health and spray fertilizers.
- AI robots reduce labour cost and increase productivity.

4. Give any two characteristics of a humanoid robot.

Ans: **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).

5. Distinguish between href and name attributes of <a> tag with examples.

| **Attribute** | **Purpose** | **Example** |
|---|---|---|
| **href** | Specifies the URL/location to which the link points. | `<a href="https://www.example.com">Visit</a>` |
| **name** | Used to create a bookmark within the same page. | `<a name="section1"></a>` |

6. Correct the code:

a. <a href="https://www.google.com">Google Ans: </a> <source src=”song.mp3”>

b. <audio controls>
<source="song.mp3">
</audio>

7. How many types of indexing are available in Python Strings?

There are **two types of indexing** in Python strings:

1. **Positive indexing** (from left to right, starting from 0)
2. **Negative indexing** (from right to left, starting from -1)

8. What are iterative statements?

**Iterative statements** are statements in programming that **repeat a set of instructions again and again** until a condition is met. They are also called **looping statements**.

**Q.(4) Answer any 4 out of the given 6 questions** **(3 x 4 = 12)**

1. Explain: a. Google lens b. Face filter

**Google Lens** is an AI-based app that uses your phone camera to identify objects and give information about them. It uses **Artificial Intelligence and Image Recognition** to understand what the camera sees.

A **Face filter** is a feature that adds fun effects or changes to a person's face using a camera. It uses **AI and Face Recognition** to detect facial features and apply effects.

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

- Ans: They make learning interactive and fun.
- Help in teaching coding and robotics.
- Encourage creativity and problem-solving among students.

3. State some 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. Explain the attribute: a. Name b. autoplay

The **Name** attribute is used to **give a unique name** to an element so it can be identified in forms or scripts. <input type="text" name="username">

The **Autoplay** attribute is used in audio or video to **play media automatically** when the page loads.

```
<video autoplay>
  <source src="movie.mp4" type="video/mp4">
</video>
```

5. Explain the concept of traversing a string in Python with example.

**Traversing a string** means accessing each character of the string one by one.

**Example:**

```
s = "Python"
for ch in s:

    print(ch)
```

6. Write a program to accept two no and print the largest number.

```
# Accept two numbers from user
a = int(input("Enter first number: "))
b = int(input("Enter second number: "))

# Check largest number
if a > b:
    print("Largest number is:", a)
else:
    print("Largest number is:", b)
```

***** All the best !!! *****