B.K. BIRLA CENTRE FOR EDUCATION

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

TERM-1 EXAMINATION (2025-26)

ARTIFICIAL INTELLIGENCE – MARKING SCHEME

Class : VIII   Duration : 2 Hrs
Date   : 17-09-2025   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) Answer any 4 out of the given 6 questions (4 x 1 = 4)

1. Grouping customers with similar buying habits together is the example of _____.
A. Clustering   B. Supervised Learning *
C. Unsupervised Learning   D. Reinforcement Learning

2. _____ algorithms can figure out how to perform important tasks by generalizing from examples.
A. Artificial Intelligence   B. Machine Learning *
C. Deep Learning   D. Data Mining

3. _____ is a feedback-based machine learning technique in which an agent learns from the environment.
A. Supervised Learning   B. Unsupervised Learning
C. Reinforcement Learning *   D. Deep Learning

4. Which of the following is Not a type of machine learning?
A. Supervised learning   B. Unsupervised learning
C. Reinforcement learning   C. Deep learning *

5. Which of the following application of machine learning is having significant impact on the world?
A. Self-driven car   B. Face recognition
C. Fraud detection   D. All of these *

6. Which of the following is Not a characteristics of machine learning?
A. Ability to learn from data   B. Ability to make predictions *
C. Ability to reason and make decisions   D. Ability to adapt to new situations

Q.(2) Answer any 5 out of the given 6 questions (5 x 1 = 5)

1. Alice and Bob are:
A. AI voice assistants   B. Social media influencers
C. Facebook chatbots *   D. Virtual reality characters

2. Full form of 'TAY' , the artificial chatbot is:
A. Talking AI Youth   B. Thinking About You *

3. In June 2005, a _____ at a hospital in Philadelphia malfunctioned during prostate surgery.

A. nurse assistant   B. surgical robot *

C. computer system   D. medical scanner

4. A _____ is caused when a prediction or end outcome negatively impacts an individuals ability to establish their rightful identity.

A. Fairness   B. Harm*   C. Job loss   D. Accuracy loss

5. Safety in AI can be understood as "AI must not cause accidents, or exhibit_____.

A. Harmful behavior *   B. Human touch

C. Precision   D. Fairness

6. _____ are AI generated videos or audio content with an intent to deceive.

A. Deep fakes   B. Canva   C. Facebook   D. None of these

Q.(3)   **Answer any 5 out of the given 6 questions (5 x 1 = 5)**

1. What is your data footprint?

A. The data left by you when you surf the internet *

B. The time you spend on your computer

C. The number of electronics you buy in a year

D. The number of Apps you have on your mobile

2. What is the purpose of transforming data into information?

A. To make data easier to store   B. To make data easier to analyze

C. To give data meaning and context *   D. To make data more valuable

3. _____ refers to the protection of personal information or data that individuals share with organization or third parties.

A. Data recovery   B. Data Footprint   C. Data Privacy*   D. None of these

4. Which refers to the process of representing data and information in a graphical format?

A. Data visualization *   B. Data recovery   C. Data privacy   D. All of these

5. Which refers to the accidental or intentional destruction or deletion of data?

A. Data export   B. Data import   C. Data loss*   D. All of these

6. Which of the following is an example of quantitative data?

A. The colour of a product   B. The size of customer business

C. The number of item sold in a day*   D. The customer opinion of a product

Q.(4)   **Answer any 5 out of the given 6 questions (5 x 1 = 5)**

1. There is no _____ in a self-driven car.

A. Human*   B. Engine   C. Steering wheel   D. Fuel

2. A megapixel means _____ pixel.

A. One Million*   B. Two Million   C. One Thousand   D. None of these

3. _____ is the image recognition techonology developed by google based on neural network.

A. Inner eye   B. Google lens *   C. Pixelit   D. Captchas

4. Which of the following is an application of computer vision?

A. Robotics   B. Medicine   C. Security   D. All of these *

5. _____ are images that contains text you have to type in before you can access a website.

A. CAPTCHAS*   B. PNG   C. JPG   D. TIFF

6. _____ images are made up of three primary colours Red, Green and Blue.

A. RGB *   B. PNG   C. BAT   D. TXT

Q.(5)   **Answer any 5 out of the given 6 questions (5 x 1 = 5)**

1. _____ bot works around a script which is programmed in them.

A. Smart   B. Script*   C. Analysis   D. Sentiment

2. Which of the following is the type of data used by NLP applications?

A. Images   B. Numerical   C. Graphical   D. Text and Speech *

3. Which analysis is the interpretation and classification of emotions within text data using text analysis techniques?

A. Natural   B. Sentiment *   C. Language   D. None of these

4. Which is the sub field of AI that is focused on enabling computer to understand and process human language?

A. Natural Language Processing*   B. Computer Vision

C. Data   D. None of these

5. Which is the first chatbot created in 1964?

A. Eliza *   B. Mitsuku   C. Haptik   D. None of these

6. Which one is the smart assistants we are using in daily life?

A. Siri   B. Alexa   C. Cortana   D. All of these*

SECTION – B SUBJECTIVE TYPE QUESTIONS

Short Answer Type Questions (7 x 2 = 14):

1. What is Machine Learning?

Answer: Machine learning is a subset of artificial intelligence (AI) that involves the development of algorithms and statistical models that allow computer systems to learn and improve their performance on tasks without explicit programming. It relies on data to identify patterns, make predictions, and automate decision making processes.

2. Define Ethics.

Answer : The moral principles governing the behavior or actions of an individual or a group. It is used for improving health information, improving consistency of healthcare information, Predicting human wild life conflict using AI, inform dam and barrage water releases and build early warning system to risk of disasters.

3. Write any two Ethics of AI.

Answer :(i) Be socially beneficial.

         (ii) Avoid creating or reinforcing unfair bias.

         (iii) Be built and tested for safety

         (iv) Be accountable to people.

         (v) Incorporate privacy design principles.

4. Differentiate between data and information?

Answer : Data : It refers to raw facts, figures and statistics that are collected and stored in a structured and unstructured format.

Information : It is data that has been processed and organized in a way that gives it meaning and context.

5. What are data footprints ?

Answer : Data footprints are the traces left by an individual or organization's online activities and interactions.

6. Write any two ways in which the functionality of Radiologists can be augmented using computer vision.

Ans. : Augmenting the functionality of Radiologists through computer vision are :

  (i)   Finding the dimensions of various organs.

  (ii)   Tools to change contrast, brightness etc. of the images.

  (iii)   Building 3D models of organs from series of 2D images.

  (iv)   Segmenting an organ from images, to help in better viewing and detailed study.

  (v)   Registering a template to an organ in the image, for comparative study.

7. What is the use of Face Filter in Computer Vision application?

Answer: Face Filters : Through the camera the machine or the algorithm is able to identify the facial dynamics of the person and applies the facial filter selected.

8. What is Email filter?

Answer: Email filters : A spam filter is a program that is used to detect unsolicited and unwanted email and prevent those messages from getting to a user's inbox.

SECTION – C

Long Answer Type Questions (4 x 3 = 12) :

1. Differentiate between AI Artificial Intelligence) and ML (Machine Learning)

Artificial Intelligence	Machine Learning
The goal is to simulate natural intelligence to solve complex problem	The goal is to learn from data on certain tasks to maximize the performance of the given task.
It leads to developing a system to mimic humans to respond in certain circumstances.	It involves creating self-learning algorithms.

2. Explain any two examples where AI is being used for good.

Ans. : Human Rights : The Indian project Track Child uses the latest face recognition technology to compare photos from missing kids with photos from kids from orphanages.
Environment : Wildlife conservation involves counting animals, which is a difficult task. Motion sensitive cameras can automatically photograph wild animals, providing massive amounts of data.

3. Give any three examples of how data impacts our daily lives.

Ans. : Healthcare : Data is revolutionizing the healthcare industry, from electronic health records to wearable devices that track our vital signs.
Education : Data is increasingly being used to improve education outcomes.
Business : Data is a critical tool for businesses looking to make informed decisions.
Online Shopping : Data plays a crucial role in online shopping, both from the perspective of the online retailer and the consumer.
Travel : Data is increasingly being used in the travel industry to provide a more personalized and seamless experience for travelers.
Online Platform : Data is used extensively in online shows and OTT (Over The Top) platforms to provide a personalized and engaging user experience.

4. Differentiate between Pixel and Resolution.

Pixel and Resolution : The pixel (Picture element) is the basic unit of programmable color on a computer display or in a computer image. A pixel is a single point in a picture. The term resolution refers to the total number of pixels in a digital image. If an image has M rows and N columns, then its resolution can be defined as M X N.

5. Differentiate between Script bot and Smart bot.

Answer:

Script Bot	Smart Bot
Easy to make	Are flexible and powerful
It work around a script which is programmed in them	It work on bigger databases and other resources directly
Mostly are free and are easy to integrate to a messaging platform	It learn with more data
No or little language processing skills	Coding is required to take this up on board
Limited functionality	Wide functionality

6. Explain: a) Smart Assistants   b) Chatbot

Answer:
Smart assistants : Smart assistants like Apple's Siri and Amazon's Alexa recognize patterns in speech, then infer meaning and provide a useful response.
Chatbots : A chatbot is an AI software that can simulate a conversation with a user in natural language through messaging applications, websites, mobile apps or through the telephone.

*** ALL THE BEST ! ***