INDIAN SCHOOL AL WADI AL KABIR
PRE-MID TERM EXAMINATION 2025-26
ARTIFICIAL INTELLIGENCE (417)

Class: X   **Max Marks: 30**
Date: 25-05-2025   **Time: 1 Hour**

General Instructions:

1. Please read the instructions carefully.

2. This Question Paper consists of **23 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 (14+9=) 23 questions, a candidate has to answer (14 + 6 =) 20 questions in the allotted (maximum) time of 1 hour.**

5. All questions of a particular section must be attempted in the correct order.

6. **SECTION A - OBJECTIVE TYPE QUESTIONS (14 MARKS):**

    i. This section has 14 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 (16 MARKS):**

    i. This section has 9 questions.

    ii. A candidate has to do 6 questions.

    iii. Do as per the instructions given.

    iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

	Answer all the questions (1 x 14 =14 marks)	

1	_____communication is the use of body language, gestures and facial expressions to convey information to others.
	    a) Verbal
	    b) Written
	    c) Non-Verbal
	    d) Visual
		1

2	Choose the correct example of oral communication.
	    (a) Reports
	    (b) Newspapers
	    (c) Face-to-face conversation
	    (d) Notes
		1

3	When it is difficult to communicate with someone who is not willing to talk or express their feelings and views it means there is a/an _____ a) Culture Barrier b) Interpersonal Barrier c) Physical Barrier d) Language Barrier	1
4	You need to apply leave at work? Which method of communication will you use? a) Poster b) Newsletter c) Blog d) e-mail	1
5	Identify the object, verb and subject in the sentence, 'The car crashed into a tree.' a) Object: a tree; Verb: crashed; Subject: the car b) Object: The car; Verb: crashed; Subject: a tree c) Object: crashed; Verb: the tree; Subject: the car d) Object: crashed; Verb: the car; Subject: the tree	1
6	_____is used in surveillance systems to monitor public spaces, buildings, and borders. a) Statistical data b) Natural Language Processing c) Computer vision d) None of these	1
7	What is the primary focus of NLP? a) Analyzing computer languages b) Interacting between computers and humans using artificial language c) Dealing with the interaction between computers and humans using natural language d) Enhancing human-to-human communication	1
8	Select the factor which is not influencing our decision-making. a) Value b) Religion c) Intuition d) None of these	1
9	The framework focuses on the character and intentions of the individuals involved in decision-making. a) Bioethics b) Rights-based c) Utility-based d) Virtue based	1
10	Assertion: Ethics provide guidance in distinguishing right from wrong. Reasoning: Ethics consist of a set of values and morals that aid individuals in making moral judgments and decisions. a) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of the Assertion. b) Assertion is true, but Reasoning is false. c) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of the Assertion. d) Assertion is false, but Reasoning is true.	1
11	During the modelling stage, the team chooses the decision tree algorithm. After training the model, they notice that the predictions are perfect on the training data but fail to generalize on new, unseen data. What issue does this suggest? a) Underfitting b) Overfitting c) Bias d) Incorrect feature selection	1

12	A robot that speaks with users, moves around, and analyzes sensor data is using which of the following combinations of AI domains?
	    a) Only Robotics
	    b) Computer Vision and NLP
	    c) NLP, Robotics, and Data
	    d) All AI domains
		1

13	Which of the following tasks is performed during the Modeling stage of an AI project?
	    a) Collecting data
	    b) Selecting the AI algorithm to train the model
	    c) Displaying the results of the AI model
	    d) Evaluating the performance of the model
		1

14	Which of the following activities is MOST relevant to the Data Acquisition stage in an AI project?
	    a) Creating a bar chart to show results
	    b) Writing code to train a machine learning mode
	    c) Collecting and organizing relevant data from various sources
	    d) Installing an AI-powered application on a smartphone
		1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 4 out of the given 6 questions (2 x 4 = 8 marks)

Answer each question in 20 – 30 words.

Q. 15	What are the elements of communication?	2
Q. 16	Explain the type of sentences based on the purpose.	2
Q. 17	Explain the capitalization rule in sentence writing.	2
Q. 18	How do value-based frameworks contribute to ethical decision-making by emphasizing fundamental principles and values?	2
Q. 19	Define a. Non-maleficence b. Beneficence	2
Q. 20	Explain any two real-life applications of NLP.	2

Answer any 2 out of the given 3 questions in 50– 80 words each (4x 2 = 8 marks)

Q. 21	**Scenario:** A healthcare organization is developing an AI model to predict the likelihood of patients developing diabetes based on various factors such as their age, diet, physical activity, weight, and medical history. The organization has collected a large dataset with this information from several patients. The goal is to use this dataset to train a predictive model that can help doctors identify high-risk patients and provide timely interventions. **Question:** Given the healthcare organization's goal, explain the steps should they follow to prepare the AI model for predicting the likelihood of diabetes?	4
Q. 22	What do you mean by Bioethics? Explain its principles	4
Q. 23	Draw the diagram showing the types of ethical frameworks. Explain the main two types of ethical frameworks	4

****************BEST WISHES****************