



INDIAN SCHOOL AL WADI AL KABIR

PRE-MID TERM EXAMINATION 2024-25

ARTIFICIAL INTELLIGENCE (417)

MARKING SCHEME

Class: X

Date: 06-06-2024

Max Marks: 30

Time: 1 Hours

SECTION A: OBJECTIVE TYPE QUESTIONS

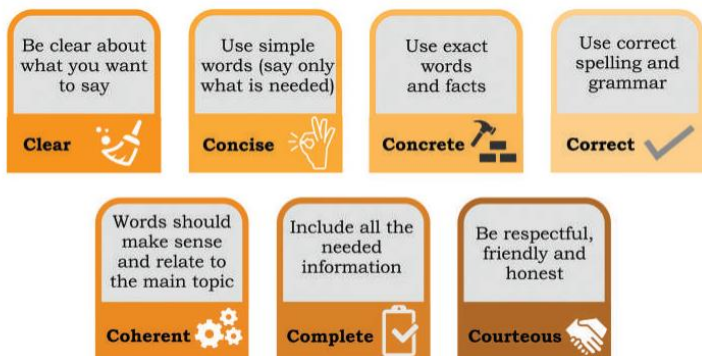
	Answer all the questions (1 x 14 =14 marks)	
1	d)She is arriving on Monday.	1
2	(c) Face-to-face conversation	1
3	(a) e-mail	1
4	(c) He is reading a book.	1
5	c)Financial barrier	1
6	d)All of the above	1
7	(b) AI Bias	1
8	(b) 1 -> (ii) ; 2 -> (i) ; 3 -> (ii) ; 4 -> (i)	1
9	(a) Google	1
10	c)A is correct R is incorrect	1
11	b)Data Science	1
12	b)Computer Vision	1
13	c)Artificial Intelligence	1
14	c)Natural Language Processing	1

SECTION B: SUBJECTIVE TYPE QUESTIONS


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

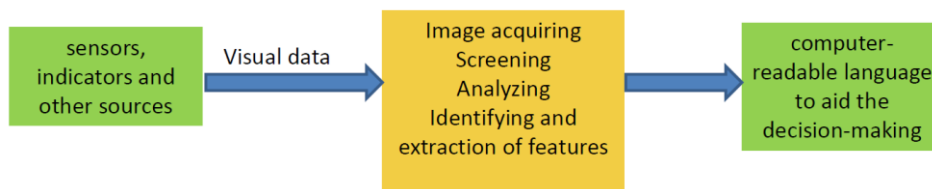
Answer each question in 20 – 30 words.

Q. 15	The various elements of the communication cycle are: <ul style="list-style-type: none">• Sender: the person beginning the communication.• Message: the information that the sender wants to convey.• Channel: the means by which the information is sent.• Receiver: the person to whom the message is sent.• Feedback: the receiver's acknowledgment and response to the message.	2
Q. 16	A good feedback is one that is: <ul style="list-style-type: none">• Specific: Avoid general comments. Try to include examples to clarify your statement. Offering alternatives rather than just giving advice allows the receiver to decide what to do with your feedback.• Timely: Being prompt is the key, since feedback loses its impact if delayed for too long.• Polite: While it is important to share feedback, the recipient should not feel offended by the language of the feedback.• Offering continuing support: Feedback sharing should be a continuous process. After	2

	offering feedback, let recipients know you are available for support. 0.5 Marks for each point	
Q. 17	Phone Smart Lock / Snapchat filter / Shopping websites / Netflix / YouTube / Face Detection / Google Maps / Emotions recognition / Google assistant / Natural language recognition / image detection / beauty filters etc. (2 marks for any four right examples)	2
Q. 18	1.Machines also become intelligent once they are trained with some information which helps them achieve their tasks. 2.AI machines also keep updating their knowledge to optimize their output. 1 Mark for each point	2
Q. 19	All methods of communication can only be effective if we follow the basic principles of professional communication skills. These can be abbreviated as 7 Cs i.e., Clear, Concise, Concrete, Correct, Coherent, Complete and Courteous.  <p>The diagram illustrates the 7 Cs of communication. It consists of seven orange-bordered boxes arranged in two rows. Each box contains a principle, a brief description, and an icon. The principles are: Clear (Be clear about what you want to say), Concise (Use simple words), Concrete (Use exact words and facts), Correct (Use correct spelling and grammar), Coherent (Words should make sense and relate to the main topic), Complete (Include all the needed information), and Courteous (Be respectful, friendly and honest).</p>	2
Q. 20	Chatbot (1 marks), as it is NLP based, the other three are Computer vision based (1marks for justification).	2

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

Q. 21	<p>In AI human-machine interactions done through the following domains:</p> <p>Data: If a person thinks of automate any system or want a report or analysis of customers feedback, data is required. For example: Taking students daily attendance we need data of students like class, roll number, student name, etc This data can be in any form textual information, audio, video, big data like predictions, insights, forecasts, decision making, etc.</p>  <p>The flowchart shows a three-step process: 'Collect the data' (green box) leads to 'Analyze the trends in data' (red box), which leads to 'Make decisions from data' (blue box).</p> <p>Computer Vision (CV): It is a field of science that deals with how computers gain a high level of understanding from digital images or videos. Computer Vision is mainly used for Face recognition systems to recognize the faces in images and videos. The application areas like google photos, spam chat, Facebook, Instagram etc.</p>	4
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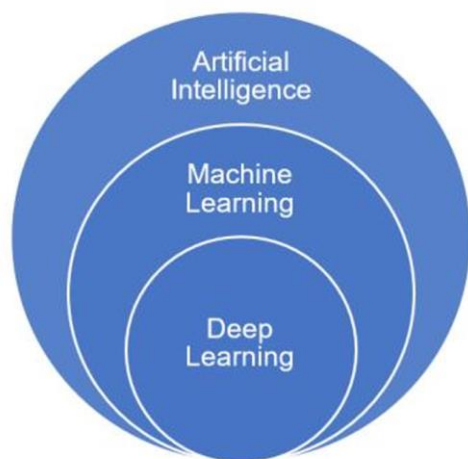
Natural Language Processing (NLP): The programming languages work on their own principles, syntax, and keywords. The aim of NLP is developing such systems that work on human natural language on oral as well-spoken language.

1 Mark for stating the domains and 3 mark for their explanation

- Q. 22** Intelligence is the ‘ability to perceive or infer information, and to retain it as knowledge to be applied towards adaptive behavior within an environment or context.’
As per major researches, there are mainly 9 types of Intelligence;
- (i) Mathematical Logical Intelligence: A person's ability to regulate, measure, and understand numerical symbols, abstraction and logic
 - (ii) Linguistic Intelligence: Language processing skills both in terms of understanding or implementation in writing or speech.
 - (iii) Spatial Visual Intelligence: It is defined as the ability to perceive the visual world and the relationship of one object to another.
 - (iv) Kinesthetic Intelligence: Ability that is related to how a person uses his limbs in a skilled manner
 - (v) Musical Intelligence: As the name suggests, this intelligence is about a person's ability to recognize and create sounds, rhythms, and sound patterns
 - (vi) Intrapersonal Intelligence: Describes the level of self-awareness someone has starting from realizing weakness, strength, to recognizing his own feelings
 - (vii) Existential Intelligence: An additional category of intelligence relating to religious and spiritual awareness.
 - (viii) Naturalist Intelligence: An additional category of intelligence relating to the ability to process information on the environment around us.
 - (ix) Interpersonal Intelligence: Interpersonal intelligence is the ability to communicate with others by understanding other people's feelings and the influence of the person.
- Definition of Intelligence-1 Mark and 1 Marks for any three Intelligences each**

- Q. 23** Differentiate between Artificial Intelligence vs Machine Learning vs Deep Learning.

Artificial Intelligence	Machine learning	Deep Learning
AI represents stimulated intelligence in machines.	ML is the practice of getting machines to make decisions without being programmed.	It is artificial neural network to solve the complex problems.
AI is a subset of data science.	ML is the subset of AI and data science.	DL is the subset of AI , ML and data science.
AI aims toward building machines that are capable to think like humans	ML aims to learn through data to solve problems.	DL aim to build neural network that automatically discover patterns for feature detection



1 Mark for Venn diagram .3 Marks for the table

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