ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417)

CLASS IX (SESSION 2023-2024)

MID TERM EXAMINATION

Max. Time Allowed: 2 Hrs

Max. Marks: 50

General Instructions:

- 1. Please read the instructions carefully.
- 2. This Question Paper consists of 21 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 (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.
- 5. All questions of a particular section must be attempted in the correct order.
- 6. SECTION A OBJECTIVE TYPE QUESTIONS (24 MARKS):
 - i. This section has 05 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 (26 MARKS):
 - i. This section has 16 questions.
 - ii. A candidate has to attempt 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)

i.	Choose the correct example of oral communication. (a) Reports (b) Newspapers (c) Face-to-face conversation (d) Notes	1
ii.	Which of the following is not a self-management skill? (a) Problem solving (b) Bargaining (c) Understanding self (d) Confidence Building	1
iii.	The is a special folder that stores the deleted files and folders. (a) Recycle bin (b) Desktop (c) Computer (d) clipboard	1
iv.	What does GPS stand for ? (a) Global Positioning System (b) Global Payment System (c) Global Program system (d) Global Pointing System	1
v.	Which of the following is not an ICT Tool? (a) Mobile (b) Laptop (c) Solar lamp (d) Tablet	1
vi.	 What can you do to get rid of negative thoughts or feelings? (a) Meditate to calm down and feel positive. (b) Ignore them and move on in life. (c) Act based on the negative thoughts or feelings. (d) Talk to a friend and share all your negative feelings. 	1
	Answer any 5 out of the given 6 questions. (1 x 5 = 5 n	narks)
i.	 Virtual assistants like Siri, Alexa, Cortana are based on technology of AI. (a) Machine Learning (b) Big Data (c) NLP (d) Data Science 	1
ii.	A smart home comprises of these components : (a) The Internet (b) Smart Devices (c) IoT (d) All of these	1
iii.	 The branch of AI that work with understanding language based audio inputs and producing language based audio output, is called (a) Audio Input output processing (b) Natural Language Processing 	1

(c) Audio Language Processing(d) Natural Language Input Output

iv.	A company used a system for recruitment, creating a situation in which many eligible women were left out of the consideration. What is this known as? (a) Misinterpretation of data (b) Problem of inclusion (c) Gender bias (d) Data Privacy	1
v .	 Price comparison websites are related to which domain of AI? (a) Artificial Intelligence (b) Machine learning (c) Deep learning (d) Data science 	1
vi.	Which of the following uses Computer Vision domain predominantly? (a) Email Spam Filter (b) Google Photos (c) Google Translator (d) Smart Bots	1
Q3	Answer any 5 out of the given 6 questions.	5 marks)
i.	 Which of the following technology is an adaption of how human brain works? (a) Super Networks (b) Smart Technology (c) Neural Networks (d) Wide Area Networks 	1
ii.	The first stage of an Al project cycle is Data Exploration. (True/False)	1
iii.	 Which of the following is not a feature of a smart school? (a) Automatic ordering of fruits (b) Multiple library access points (c) Informed parents (d) None of these 	1
iv.	How many SDGs are included in 2030 agenda of UN? (a) 30 (b) 17 (c) 27 (d) 15	1
v.	 What is the goal of sustainable development? (a) Efficient usage of resources (b) Sustainability of resources (c) Reusability of resources (d) All of these 	1

	Which of the following is an example of structured data?	
vi.	(a) Videos (b) Emails	1
•••	(c) CSV files	-
	(d) Presentations	
	Answer any 5 out of the given 6 questions. 5	
	m	arks)
i.	Identify the SDG Goal . (a) No poverty (b) Good Education (c) Quality Education (d) None of these	1
ii.	 Ms. Khushi, a computer science teacher at Kendriya Vidyalaya, has developed an educational humanoid namely Ammu, which can converse in 47 languages. Which AI technology helps Ammu, the robot, converse with us humans ? (a) NLP (b) Computer Vision (c) ML 	1

(a) Climate change 1 (b) Life below water 1 (c) Life on Land 1 (d) Gender equality 1 (a) General Processing Term 3 1 (b) General Processing Terminator 3 1 (c) General Pre-term 3 1 (d) General Pre-trained transformer-3 1 (d) General Pre-trained transformer-3 1 (e) Data Analysis 1 (f) All of these 1 v. (b) Robotics 1 (c) Data Analysis 1 (d) All of these 1 vi. (a) Biased 1 (b) Ethical (c) Fair (d) Both (b) and (c) 5		Sustainable Development Goal 5 is	
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i.	involves collecting data from various authentic sources such as reliable websites, observations, surveys. (a) Data Acquisition (b) Data Evaluation (c) Data Testing (d) Data Modelling	1
ii.	In this stage of AI Project Cycle, AI algorithms are developed around the final AI-model. Which stage is this? (a) Data Acquisition (b) Data Exploration (c) Modelling (d) Evaluation	1
iii.	In block of 4Ws Canvas, the focus is on the context/situation/location of the problem. (a) What (b) Why (c) Who (d) Where	1
iv.	The block of 4Ws Problem Canvas helps in analysing the people getting affected directly or indirectly due to it. (a) Who (b) What (c) Where (d) Why	1
v.	is one of the types of supervised learning model, where data is classified according to labels and data need not be continuous. (a) Regression (b) Classification (c) Clustering (d) Dimensionality reduction	1
vi.	Understage of AI Project Cycle, we look at various parameters which affect the problem we wish to solve so that the picture becomes clearer. (a) 4Ws canvas (b) Modelling (c) Evaluation (d) Problem Scoping SECTION B: SUBJECTIVE TYPE QUESTIONS	1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills ($2 \times 3 = 6$ marks) Answer each question in 20 - 30 words.

Q6	What are some stress management techniques?	2
Q7	How do you copy files from one folder to another?	2
Q8	Shilpa's computer has suddenly become very slow and non-responsive. She feels that her computer has been infected with a virus. Write any two ways Shilpa can follow to protect her computer from viruses.	2
Q9	What is self confidence?	2
Q10	What are the various elements of Communication?	2

Answer any 4 out of the given 6 questions in 20 - 30 words each. (2 x 4 = 8 marks)

QII	Name the scientist who first used the term "Artificial Intelligence"	2
Q12	List two advantages of AI.	2
Q13	What is Sustainable Development?	2
Q14	What are the authentic sources of Data collection?	2
Q15	How is AI contributing towards the SDG of quality education?	2
Q16	Give examples of some applications of AI where Computer Vision is primarily used.	2

Answer any 3 out of the given 5 questions in 50 - 80 words each. (4 x 3 = 12 marks)

Q17	What are the three major domains of AI?	4
Q18	Enlist some AI based jobs of future.	4
Q19	Define AI Ethics? List some ethical issues related to AI.	4
Q20	Write the applications of AI in your day to day life.	4
Q21	What is an AI Project Life Cycle?	4