



Delhi Public School, Howrah

PERIODIC ASSESSMENT I (2024-2025)

CLASS – IX

Care must be taken not to write anything on the question paper. All the questions must be attempted in the correct sequence.

SUBJECT: ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417)

THEORY EXAMINATION

Time Allowed:-1 Hour

F.M.-25

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **15 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 (3 + 12 =) 15 questions, a candidate has to answer (3 + 6 =) 9 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 (11 MARKS):**
 - i. This section has 03 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 (14 MARKS):**
 - i. This section has 12 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

Q. 1	Answer any 3 out of the given 4 questions on Employability Skills (1 x 3 = 3 marks)	
i.	Oral Communication is based on_____. (a) Language and tone of voice (b) Listening and Writing (c) Facial Expressions (d) Gestures	
ii.	State whether the following statement is True or False. If false, rewrite the correct statement. Non-Verbal Communication includes object or symbolic communication.	(1)
iii.	Niraj had difficulty in speaking English. He, therefore, avoided talking to his classmates. He believed that he can learn English by joining spoken english classes and in a few days he was able to speak English fluently. Which of the following quality is he demonstrating? (a) Personal hygiene and grooming (b) Self-control (c) Self-confidence (d) Team work	(1)
iv.	What are the types of words we should use for verbal communication? (a) Simple (b) Jargons (c) Technical (d) Acronyms	(1)

Q. 2	Answer any 4 out of the given 6 questions (1 x 4 = 4 marks)	
i.	Jhanak loves to play Rock, Paper and Scissors game with her younger brother every day. Rock Paper and Scissors game is based on the following domain: (a) Data for AI (b) Image processing (c) Computer Vision (d) Natural Language Processing	(1)

ii.	Which was the first programming language developed for AI? (a) BASIC (b) LISP (c) ABC (d) C	(1)
iii.	Auto-suggestion feature in search engine is a component of— (a) Machine Learning (b) Deep Learning (c) Robotics (d) Data processing	(1)
iv.	The first Computer which laid the foundation for today's modern machines was the— (a) Mark1 (b) Analytical engine (c) Turing Machine (d) ENIAC	(1)
v.	_____ is the India's first and largest Artificial Intelligence Banking chatbot. (a) SIA (b) Flippi (c) EVA (d) Messenger	(1)
vi.	Two statements are given below, read the statements and choose the correct option. Statement1: AI is getting integrated into our lives seamlessly. Statement2: Often we do not even realize that we are using AI. (a) Statement 2 is correct and Statement 1 is incorrect. (b) Statement 1 is correct and Statement 2 is incorrect (c) Both Statement1 and Statement2 are correct (d) Both Statement1 and Statement2 are incorrect	(1)

Q. 3	Answer any 4 out of the given 6 questions (1 x 4 = 4 marks)	
i.	Fill in the blank: Google Home or Nest is a Google Assistant based smart speaker which uses _____ technology.	
ii.	Give one word answer: State an example of Reactive Machines.	(1)
iii.	State whether the following statement is True or False. If false, rewrite the correct statement. Computer Vision is the heart of AI system.	(1)
iv.	An application lets you search what you see, get things done faster and understand the world around you – using just your camera or a photo. Which domain does this app belong to? (a) Natural Language Processing (b) Data Sciences (c) Computer Vision (d) Artificial Language Processing	(1)
v.	Assertion (A): If one is working alone, one will have better knowledge of things and the situations. He/she will know the exact status of the job or task. Reason (R): There will be a few ideas and suggestions on how to complete the work. Lack of confusion means better clarity for the person to finish the work. (a) Both A and R is true and R is the correct explanation of A. (b) Both A and R is true but R is not the correct explanation of A. (c) A is true but R is false. (d) A is false but R is true.	(1)
vi.	Give one word answer: Semantris game depends on this AI technology.	(1)

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 2 out of the given 4 questions on Employability Skills (2 x 2 = 4 marks)

Answer each question in 20 – 30 words.

Q. 4	Atul is very poor in his studies but he is very enthusiastic about photography which he wants to pursue. He is completely unaware about his passion and strength. Explain to Atul two ways to identify strengths.	(2)
Q. 5	Oral Communication is a method of communication where we can exchange words, but there are few more factors which affect a good oral communication. What are the factors responsible for enhancing oral communication?	(2)
Q. 6	What are the factors affecting perspectives in communication?	(2)
Q. 7	State the fundamentals of being independent?	(2)

Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)

Q.8	Romila visited City Hospital with her grandparents for regular check-up. There she was surprised to see that doctors are using machines to detect pulse rate. So explain Romila the applications of AI in the Healthcare Industry.	(2)								
Q.9	Match the following. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Column A</th> <th>Column B</th> </tr> </thead> <tbody> <tr> <td>1. Smart Mobility</td> <td>i) Resources and Sustainability</td> </tr> <tr> <td>2. Smart Environment</td> <td>ii) Creativity and Social Capital</td> </tr> <tr> <td>3. Smart People</td> <td>iii) Infrastructure and Transport</td> </tr> </tbody> </table>	Column A	Column B	1. Smart Mobility	i) Resources and Sustainability	2. Smart Environment	ii) Creativity and Social Capital	3. Smart People	iii) Infrastructure and Transport	(2)
Column A	Column B									
1. Smart Mobility	i) Resources and Sustainability									
2. Smart Environment	ii) Creativity and Social Capital									
3. Smart People	iii) Infrastructure and Transport									
Q.10	What are the types of AI based on capability?	(2)								
Q.11	Amrita wants to buy a voice controlled digital assistant at her home. The system which can use voice commands to ask natural questions, play music, order pizza, hail an Uber, and integrate with smart home devices. Suggest a suitable device from a reputed brand for her requirement with a short description.	(2)								
Q.12	Differentiate between Machine Learning and Deep Learning.	(2)								

Answer any 1 out of the given 3 questions in 50 – 80 words (4 x 1 = 4 marks)

Q.13	Can you demonstrate your ability to develop algorithms and techniques to extract meaningful information from visual data, such as identifying objects, recognizing patterns, and understanding scenes, as required in computer vision?	(4)
Q.14	"Smart City "plays an important role in our modern life. It makes our life easier and comfortable. Elaborate the term Smart City.	(4)
Q.15	What competencies are required to understand the association between NLP and AI?"	(4)