

KENDRIYA VIDYALAYA SANGATHAN, DELHI REGION
PERIODIC TEST 2(2023-24)

SUBJECT: ARTIFICIAL INTELLIGENCE (417)

TIME ALLOWED: 2 HRS

CLASS: IX
MAX MARKS: 50

NOTE: All questions are compulsory.

- Section A contains 12 (01 Mark MCQs). (1X12=12marks)
- Section B contains 9 (02 Marks Questions). (2X9=18marks)
- Section C contains 4 (03 Marks Questions). (3X4=12marks)
- Section D contains 2 (04 Marks Questions) (4X2=8marks)

SECTION-A

1	<p>A Smart Home comprises of these components:</p> <ol style="list-style-type: none"> 1. Internet 2. IoT 3. Smart Devices 4. All of these 	1
2	<p>Name the 4Ws of problem canvases under the problem scoping stage of the AI Project Cycle.</p> <ol style="list-style-type: none"> 1. Who, what, where and why 2. Who, what, which and where 3. Who, why, which and where 4. Who, what, which and why 	1
3	<p>Which of the following skills are required to be a successful entrepreneur?</p> <ol style="list-style-type: none"> i. Ambition ii. Creativity iii. Team management iv. All of these 	1
4	<p>Which statement(s) is/are applicable for Problem Scoping of AI project cycle?</p> <ol style="list-style-type: none"> 1. setting the goal 2. identifying the problem 3. a deeper understanding of the problem 4. All of these 	1
5	<p>Here are the stages of AI project cycle. Rearrange the stages in the correct order.</p> <ol style="list-style-type: none"> 1. Problem scoping 2. Data Exploration 3. Data Acquisition 4. Evaluation 5. Modelling <p>a. i) -> iii) -> ii) -> v) -> iv)</p> <p>b) ii) -> iv) -> iii) -> v) -> i)</p> <p>c) iii) -> ii) -> iii) -> iv) -> v)</p> <p>d) iii) -> v) -> iv) -> ii) -> i)</p> <p>a. i) -> iii) -> ii) -> v) -> iv)</p>	1
6	<p>What do you understand by AI Ethics?</p> <ol style="list-style-type: none"> a. Set of Principles and Techniques to ensure the conduct of AI Models fair and right. b. Restrictions of task to be done via AI c. Use of biasness in daily life d. Google Maps 	1
7	<p>You can develop your self - confidence through changes in _____.</p> <ol style="list-style-type: none"> a. Attitude 	1

- b. Practice
- c. Both a) and b)
- d. None of the above

8 **Example of mobile operating system** _____
 a. Apple iOS
 b. Android
 c. Microsoft
 d. All of the following

9 **Which of the following options do not conserve our health and environment?**
 (a) Grow organic crops
 (b) Use natural fertilizers
 (c) Manage waste water
 (d) Use more air conditioning

10 **Which of the following is not one of the 7C's principles of communication?**
 a. Clear
 b. Concise
 c. Correct
 d. Conscious

11 **The AI bias usually reflect**
 a) Societal
 b) Culture
 c) Gender
 d) All of these

12 _____ helps to represent graphical data that use symbols to convey a story and help people understand large volumes of information.
 a. Dataset
 b. Graphical Representation
 c. Data Acquisition
 d. None of the above

SECTION-B

13 **How entrepreneurs positively contribute to society?**

14 **What are Sustainable Development Goals Name any two SDGs.**

15 **What is verbal communication? Advantages and disadvantages of verbal communication.**

16 **What is Positive Thinking? What is the importance of positive thinking?**

17 **Explain any four features of mobile devices?**

18 **What are the different Real World Application in AI?**

*Social media
games*

19 **What are the different ways to collecting / Acquiring Data?**

20 **Explain the different types of dataset available in AI?**

21 **Write all the different AI Project Cycle Stages?**

SECTION- C

22 **What are the two different approaches for AI modelling? Explain each with example.**

Rule-based - Learn

23 **Mention any 3 features of Smart Phones with brief explanation.**

24 What is a problem statement template and what is its significance explain with example? 3

25 Give any three example of Artificial Intelligence Domain? Explain each of them. 3

SECTION D
(COMPETENCY BASED QUESTIONS)

26 Suppose you are working as a Librarian in a School. Your duty is to organize books by class, subjects and authors. But the library doesn't have any database system and all books are mixed up. Thus, you encounter several problems when looking for a particular book. In order to find a book, the library requires an effective technique. So you recommend to the management for the creation of a database of books, after which the books are categorized into shelves so that students can quickly search for them. 4

1. Taking this as a problem, choose which of the following would be the ideal problem statement template.

- (i) Librarian and students are facing problem regarding searching for books in a library. An ideal solution would be to assign a duty to the student to find books in the library.
- (ii) Librarian and students are facing problem regarding searching for books in a library. An ideal solution would be to create a database of books and place books on shelves according to category.
- (iii) Librarian and students are facing problem regarding searching for books in a library. An ideal solution would be to restrict the entry of students in the library.
- (iv) Librarian and students are facing problem regarding searching for books in a library. An ideal solution would be to close the library.

2. Using an AI application, it is possible to identify a Student's feelings with data sets such as phone records, web chats and feedback on social media platforms. Which domain of AI can help him? → Data Mining

3. He is trying to search details about some newly added books from the Internet. Name the application / technique for this. - google

4. Library Teacher needs to protect his database of books in his system. He also secures certain important details. How can he/she achieve this? Password

7 (i) While designing a Security system for the School where rare books were to be kept for Book Exhibition. What Smart Security Measures should be taken for protecting these books. LCTB 4

(ii) Which stage of AI project cycle is used to gather data for the above problem? Modelling

(iii) Who all are the Stakeholders to deal with the above problem?

(iv) Name any 2 sources for data acquisition? principal