

DAV BR PUBLIC SCHOOL, BINA
Practice Paper for Annual Examination Session (2023-24)
Class IX AI (417)

Time Allowed : 2 Hrs

Maximum Marks : 50

General Instructions:

1. This question paper consists of two parts viz.
 - i. Section A: Employability Skills and
 - ii. Section B: Subject Skills.
2. Section A: Employability Skills (10 Marks)
 - i. Answer any 4 questions out of the given 6 questions of 1 mark each.
 - ii. Answer any 3 questions out of the given 5 questions of 2 marks each
3. Section B: Subject Skills (40 Marks)
 - i. Answer any 10 questions out of the given 12 questions of 1 mark each.
 - ii. Answer any 4 questions out of the given 6 questions of 2 marks each.
 - iii. Answer any 4 questions out of the given 6 questions of 3 marks each.
 - iv. Answer any 2 questions out of the given 4 questions of 5 marks each.
4. This question paper contains 39 questions out of which 27 questions are to be answered.
5. All the questions of a particular part/section must be attempted in the correct order.

SECTION A Employability Skills

Answer any 4 questions out of the given 6 questions of 1 mark each

1. Match the following.

1

Column A: Barriers	Column B: Examples
1. Language	A. Trying to read a book when somebody else is watching TV in the same room
2. Emotional	B. In some cultures, wearing shoes and walking inside the kitchen is considered rude and disrespectful
3. Environmental	C. Talking in Hindi when others know only Tamil
4. Cultural	D. Parent is not talking to the child

2. Which of these is not a type of entrepreneurship? **1**

- a. Small business entrepreneurship
- b. Scalable entrepreneurship
- c. Large scale entrepreneurship
- d. Intrapreneurship

3. The process of creating something new is called: **1**

- a. Creative flexibility
- b. Management
- c. Business
- d. Innovation

4. Ownership position of less than 50 per cent in a business is known as: **1**

- a. Majority Interest
- b. Joint Venture
- c. Minority Interest
- d. None of the above

5. **Plants take in _____ gas that helps reducing air pollution.** **1**

- 1. NH₃
- 2. H₂
- 3. CO₂
- 4. NO₂

6. **Which of the following is not a natural resource?** **1**

- 1. coal
- 2. electricity
- 3. petroleum
- 4. soil

Answer any 3 questions out of the given 5 questions of 2 marks each

7. What is a green economy, and why is it important? **2**

8. What are the components of a Green Economy? **2**

9. What is Entrepreneurship? 2
10. What are the roles of Entrepreneur? 2
11. Write four qualities of Entrepreneur? 2

Section B: Subject Skills

Answer any 10 questions out of the given 12 questions of 1 mark each.

12. **It is the basic working unit of the brain.** 1
- a) Neuron
 - b) Electron
 - c) Prton
 - d) None of the above
13. **A perceptron is a single-layer neural network. It consists of _____ main parts.** 1
- a) two
 - b) three
 - c) four
 - d) five
14. **In a human neuron, it is a long, cable-like projection of the cell carries the electrochemical message (nerve impulse) along the length of the cell.** 1
- a) Soma
 - b) Dendritis
 - c) Axon
 - d) None of the above

15. A “neuron” in an artificial neural network is a _____ function that collects and classifies information according to a specific architecture. **1**

- a) Statistical
- b) Mathematical
- c) Text
- d) Graphical

16. In case a machine is capable of changing its course of action based on the external environment without any external help then the machine is called ____. **1**

- a) Intelligent
- b) Mobile
- c) Both A and B
- d) None of the above

17. On which approach the face recognition system is based? **1**

- a) Weak AI Approach
- b) Cognitive AI Approach
- c) Strong AI Approach
- d) Applied AI Approach

18. ____ was originally called ‘the Imitation game’. **1**

- a) The Turning Test
- b) LISP
- c) The Halting Problem
- d) None of the above

19. In the artificial neural network, forward propagation delivers the: **1**

- a) Error value
- b) Predicted value
- c) Fixed value
- d) Unpredicted value

20. In this learning, you train the machine using data which is well labelled.” 1

- a) Unsupervised
- b) Supervised
- c) Reinforcement
- d) None of the above

21. This type of learning takes place when a machine can analyse data patterns previously unspecified by humans. 1

- a) Unsupervised
- b) Supervise
- c) Reinforcement
- d) None of the above

22. _____ is a kind of algorithm which can help us solve many obstacles. 1

- a) Anomaly Detection
- b) Association rule
- c) Semi supervised

23. In a human neuron, these are small, branchlike projections of the cell make connections to other cells. 1

- a) Soma
- b) Dendritis
- c) Axon
- d) None of the above

Answer any 4 questions out of the given 6 questions of 2 marks each

24. What do you understand from reinforcement learning? 2

25. Write any two common algorithms for Supervised learning. 2

26. Write the functions of Dendrites and Soma. 2

27. Write two advantages of Neural Network. 2

28. Mention any two challenges faced by Neural Network. **2**

29. Define Adaptive learning. **2**

Answer any 4 questions out of the given 6 questions of 3 marks each

30. Differentiate between Machine Learning and Deep learning (3 points) **3**

31. Write three features of a Reinforcement learning with an example. **3**

32. Make a decision tree for different grade system. **3**

33. Write 3 applications of machine learning. **3**

34. Differentiate between Artificial Intelligence and Machine learning. **3**

35. Explain Unsupervised learning in brief. **3**

. Answer any 2 questions out of the given 4 questions of 5 marks each.

36. Explain Examples of Deep learning at work. **4**

37. Explain the concept of Decision Tree with diagram. **4**

38. Write key concepts of Deep Neural Network. **4**

39. Explain prognosis and Fault tolerance. **4**