O. P. JINDAL SCHOOL, SAVITRI NAGAR
Half Yearly Examination (2025 – 2026)

Class: X   **MM: 50**

Subject: Artificial Intelligence (417)   **Time: 2 Hrs.**

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(Fifteen Minutes Extra will be given for reading the Question Paper.)

General Instructions:
- ➢ **This question Paper contains four sections A, B, C and D.**
- ➢ **Section – A Multiple Choice Questions, consists of 10 questions. Each question carries 01 mark.**
- ➢ **Section – B Very Short Answer Type Questions, consists of 06 questions. Each question carries 02 marks.**
- ➢ **Section – C Short Answer Type Questions, consists of 06 questions. Each question carries 03 marks.**
- ➢ **Section – D Long Answer Type Questions, consists of 02 questions. Each question carries 05 marks.**

SECTION – A (Multiple Choice Questions)

Q1. Which of the following is an application of reinforcement learning?
  a) Topic modeling   b) Recommendation system
  c) Self-driving cars   d) Image classification

Q2. The full form of ANNs is
  a) AI Neural Network   b) Artificial Neural Node
  c) Artificial Neural Numbers   d) Artificial Neural Networks

Q3. In an ANN, the adjustable parameter on each connection that scales the data passing through it, is called
  a) Soma   b) Synapse
  c) Weight   d) Axon

Q4. ANNs are said to have mainly these two abilities:
  a) Ability to code   b) Ability to learn
  c) Ability to design   d) Ability to generalize

Q5. What is an Activation Value?
  a) Weighted sum of inputs   b) Threshold value
  c) Main input to neuron   d) None of these

Q6. Which of the following makes the most contribution in communication as a whole?
  a) Voice   b) Voice Tone   c) Words   d) Body Language

Q7. Which of the following is NOT an element of communication process cycle?
  a) Channel   b) Receiver   c) Sender   d) Time

Q8. _____plays an important role in communication as it tells both sender and receiver, how the message was interpreted.
  a) Media   b) Source   c) Courtesy   d) Feedback

Q9._____is a style and process of bending or bringing body in postures that work on mind, body and spirit together.
a) Meditation   b) Yoga   c) Sports   d) Nature walk

Q10. The _____ systems are not largely scalable.
a) Learning based   b) Rule based   c) Robotics   d) A l l   o f   t h e s e

SECTION – B (Very Short Answer Type Questions)

Q11. What is an AI project cycle?
Q12. What is the importance of feedback in communication?
Q13. Give an example of AI application / technology that has used and implemented various domains of Artificial Intelligence.
Q14. What is Good stress and Bad stress?
Q15. What is the value alignment in AI Ethics?
Q16. Why is transparency important in AI systems?

SECTION – C (Short Answer Type Questions)

Q17. How does autonomy influence medical decision-making?
Q18. What is the importance of data preprocessing?
Q19. What is training data, validation data, and test data?
Q20. Discuss the four steps of effective time management.
Q21. What are different qualities of successful entrepreneurs?
Q22. What is Neural Network in the context of computing?

SECTION – D (Long Answer Type Questions)

Q23. What is Sustainable Development? Discuss briefly about four dimensions of Sustainable Development?
Q24. What is the difference between the rule based and learning based AI model?
            (OR)
      What is the purpose of modeling phase of AI project cycle?