

MODEL PAPER

**SEMESTER-II - BSc AI
COURSE 4: ARTIFICIAL & COMPUTATIONAL INTELLIGENCE**

Time: 3 hrs

Total Marks: 60

SECTION - A

Answer any five of the following questions

5 X 4 = 20 M

1. Define Artificial Intelligence.
 2. What is the PEAS framework? Explain briefly.
 3. What is an Expert System?
 4. Write the main components of an Expert System.
 5. What is problem formulation in AI?
 6. Differentiate between Breadth-First Search and Depth-First Search.
 7. What is Machine Learning?
 8. What is the difference between supervised and unsupervised learning?
 9. What is a Neural Network?
 10. Mention any four ethical issues in Artificial Intelligence.
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SECTION - B

Answer the following questions

5 X 8 = 40 M

11. (a) Explain the applications of Artificial Intelligence.
(OR)
(b) Explain the PEAS framework with an example.
12. (a) Explain the architecture and working of an Expert System.
(OR)
(b) Discuss rule-based systems of Expert Systems.
13. (a) Explain Breadth-First Search with an example.
(OR)
(b) Explain Greedy Best-First Search example.
14. (a) Explain different types of Machine Learning.
(OR)
(b) Describe basic learning algorithms and their applications.
15. (a) Explain the basics and structure of Neural Networks.
(OR)
(b) Discuss the role of Computational Intelligence in AI.