Time : 2 Hours   **Max Marks : 70**

Note:- Attempt any 14. Each question carries equal marks.

14 x 5 = 70 marks

Q. 1 Define AI? Write its applications.

Q. 2 Discuss History of AI.

Q. 3 Define intelligent agent? How it works in AI.

Q. 4 Explain the knowledge base system in AI.

Q. 5 What are the various knowledge representation techniques? Explain.

Q. 6 Differentiate between programming and AI programming languages.

Q. 7 Define algorithm? Define with time and space complexity

Q. 8 Differentiate between uninformed and informed search techniques.

Q. 9 Explain the BFS algorithm with its disadvantages.

Q.10 Define graph colouring technique with suitable example

Q. 11 Describe A* algorithm with example.

Q. 12 How to convert first order propositional logic to predicate logic? Explain with examples.

Q. 13 Explain the clausal form or CNF with any 5 examples.

Q. 14. Define natural language processing.

Q. 15 What are the steps in Natural language processing?

Q. 16 What is grammar? Explain with its type.

Q. 17 Write the hierarchy of different parsing techniques.

Q. 18 Define machine learning technique.