



NP – 412

V Semester B.C.A. Degree Examination, January/February 2026
(NEP Scheme)
COMPUTER APPLICATIONS
Artificial Intelligence

Time : 2½ Hours

Max. Marks : 60

Instruction : Answer **all** the Parts.

PART – A

Answer **any four** questions. **Each** question carries **two** marks. **(4×2=8)**

1. Define the term “Environment” in the context of agents.
2. What is Truth Maintenance System ?
3. Differentiate between informed and uninformed search strategies.
4. What is chunking ?
5. What is Fuzzy Logic ?
6. What do you mean by lexical analysis ?

PART – B

Answer **any four** questions. **Each** question carries **five** marks. **(4×5=20)**

7. Explain the structure of an Intelligent Agent with a neat diagram.
8. Describe Best First Search with an example.
9. Explain Forward chaining with example.
10. Discuss Blocks World Problem with example.
11. Describe Resolution in Predicate Logic with an example.
12. What are the stages of Natural Language Processing ? Explain.

PART – C

Answer **any four** questions. **Each** question carries **eight** marks. **(4×8=32)**

13. Explain Minimax search in two-player zero-sum games with an example game tree.
14. Discuss Blocks World Problem and its representation in STRIPS.

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15. Explain operations on Fuzzy sets with suitable examples.
16. Explain fundamentals of Robotics and Robot kinematics with examples.
17. a) Explain the applications of Computer Vision.
b) Discuss probabilistic reasoning. **(4+4)**
18. Briefly explain the following :
- a) Reinforcement learning. **4**
- b) Artificial Neural Network. **4**
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