



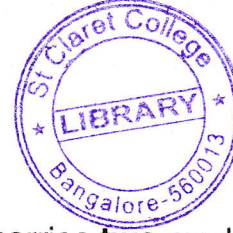
NP – 273

45
V Semester B.A./B.Sc. Examination, February/March 2024
(NEP Scheme) (Freshers)
COMPUTER SCIENCE
Artificial Intelligence

Time : 2½ Hours

Max. Marks : 60

Instruction : Answer all the Parts.



PART – A

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

- 1) Define Agents.
- 2) What is Planning ? What are the components of planning ?
- 3) Define Truth Maintenance System.
- 4) What are the steps in Natural Language Processing ?
- 5) What do you mean by knowledge ?
- 6) Define syntactic analysis.

PART – B

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

- 7) Explain BFS. 4
- 8) Differentiate between forward chaining and backward chaining. 4
- 9) What is Neural Network ? Explain the role of Neural Network in AI. 4
- 10) Define Problem. Explain water-jug-problem. 4
- 11) Write A* search algorithm. 4
- 12) Write a short note on fuzzy logic. 4

P.T.O.



PART – C

- III. Answer **any four** questions. **Each** question carries **eight** marks. **(4×8=32)**
- 13) Explain depth first search algorithm and write its algorithm. **8**
- 14) a) Explain problem solving agents. **5**
b) Write a short note on computer vision. **3**
- 15) Explain proportion logic and predicate logic. **8**
- 16) Explain in detail the architecture of an expert system.
- 17) Convert the following English statements in first-order-logic. **8**
- i) Every apple or pear is a fruit
 - ii) Every fruit is a yellow or a green or a red color
 - iii) No pear has red color
 - iv) No fruit which is sweet in green color
 - v) Pear is a fruit
- 18) a) Explain supervised and unsupervised learning. **4**
b) Explain syntactic processing and pragmatic processing. **4**
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