

BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)
B. Tech. Sem.- VI Computer Science & Business Systems : SUMMER : 2025
SUBJECT: ITC-IV: ARTIFICIAL INTELLIGENCE

Day : Tuesday
Date : 03/06/2025

S-24183-2025

Time : 02:30 PM-05:30 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagrams **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

Q. 1 Describe in detail Techniques of AI. (10)

OR

Q. 1 Write 5 example of Agents with their PEAS Representation. (10)

Q. 2 Discuss the concept of AO* Algorithm with suitable example. (10)

OR

Q. 2 List informed Search Techniques. Explain the concept A* Algorithm with suitable example. (10)

Q. 3 Define the Constraint Satisfaction problems. Describe the elements in the Definition. (10)

OR

Q. 3 Solve below Cryptarithmic problem Using CSP: (10)

S E N D
+ M O R E

M O N E Y

Q. 4 Explain First-Order Logic in AI with example. (10)

OR

Q. 4 Give different approaches to knowledge representation. (10)

Q. 5 Explain Dempster – Shafer theory. (10)

OR

Q. 5 Explain Hierarchical Planning.

Q. 6 Give advantages, disadvantages of expert systems. Explain any five applications of expert system. (10)

OR

Q. 6 What is an Expert System? Explain in detail Components of Expert System. (10)

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