



R20 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 3E5EF

B.Tech V Semester Supplementary Examinations, June/July 2023

ARTIFICIAL INTELLIGENCE
(Computer Science & Engineering)

Maximum Marks: 70

Date:04.07.2023 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Differentiate natural intelligence from artificial Intelligence.
- 2 Define a ridge.
- 3 What are the four parts of knowledge in first order logic?
- 4 What is logic programming?
- 5 Write the properties of fuzzy sets.
- 6 Will breadth-first search always find the minimal solution? Why?
- 7 What is a frame in AI?
- 8 What is script?
- 9 What is beta cutoff?
- 10 What is plan decomposition?

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 List and describe the problem characteristics that need to be considered for selecting appropriate heuristics for a given class of problems. (10)
OR
- 12 Describe in detail about the production system characteristics. (10)
- 13 Explain resolution in predicate logic with suitable example. (10)
OR
- 14 (a) Discuss the approaches to knowledge representation. (4)
(b) Give the differences between Forward and Backward Reasoning in AI. (6)
- 15 Discuss the need and structure of Bayesian network. (10)
OR
- 16 Write short notes on (a) Depth first search. (5)
(b) Breadth first search. (5)
- 17 Describe the types of semantic networks, its main components, advantages and disadvantages. (10)
OR
- 18 Explain the theory of conceptual dependency and give the advantages and disadvantages. (10)
- 19 Discuss Alpha Beta pruning with algorithm. (10)
OR
- 20 Describe hierarchical planning method with an example. (10)