



R20 Regulation

Subject code:3E5EF

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech V Semester Supplementary Examinations, May 2025**

**ARTIFICIAL INTELLIGENCE  
(CSE)**

Maximum Marks: 70

Date:26.06.2025

Duration: 3 hours

- Note: 1.This question paper contains two parts A and B.  
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.  
 3. Part B consists of 5 Units. Answer any one full question from each unit.  
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	Write the four components of state space search.	2M	1	L1
2	What is the use of Heuristic Functions?	2M	1	L1
3	Can you represent the resolution in predicate logic.	2M	2	L1
4	What is resolution?	2M	2	L1
5	Define non- monotonic reasoning.	2M	3	L1
6	Define Conditional Probability.	2M	3	L1
7	Write truth tables for logical operators.	2M	4	L1
8	What are types of learning algorithms?	2M	4	L1
9	What is Iterative Deepening Depth first search?	2M	5	L1
10	What is Planning?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Develop algorithm for depth first and breadth first search.	10M	1	L2
OR				
12	Describe the following in detail a)Hill climbing b) Best first search c) Constraint satisfaction problem	4M 3M 3M	1	L2
13	Explain the various features of declarative and procedural frames.	10M	2	L2
OR				
14	Differentiate between forward and backward reasoning.	10M	2	L2
15	Differentiate between procedural and declarative knowledge.	10M	3	L2
OR				
16	Discuss about implementation of Breadth-First Search in detail.	10M	3	L2
17	Explain about CYC 216 in detail.	10M	4	L2
OR				
18	Write short notes on: a) Semantic net b) Frames c) Scripts d) Conceptual dependency	2M 3M 3M	4	L2
19	Define other Planning Techniques in detail.	10M	5	L2
OR				
20	Discuss in detail about the Blocks world planning.	10M	5	L2