



B.Tech VII Semester Regular/Supplementary Examinations, December 2024

ARTIFICIAL INTELLIGENCE
(ECE)

Maximum Marks: 70

Date: 30.12.2024

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 which carries 10M.
 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)	CO	Bloom Tx
1	What is Artificial Intelligence?		1	L1
2	Give a brief note on Heuristic search.		1	L1
3	What are the 4 approaches to knowledge?		2	L1
4	What is forward and backward reasoning in AI?		2	L1
5	What is non-monotonic reasoning with an example in AI?		3	L1
6	Define Fuzzy Set?		3	L1
7	What is a frame-based system in AI?		4	L1
8	What is CYC theory in AI?		4	L1
9	Write a short note on Block world problem?		5	L1
10	What is a reactive system?		5	L1

Part-B

Answer All the following questions.		(5X10M=50Marks)	CO	Bloom Tx
11	Discuss the tic-tac-toe problem in detail and explain how it can be solved using AI techniques?	[10M]	1	L6
OR				
12	A) Describe different control strategies used in problem solving? [5M] B) Define Heuristic search? What are the advantages of Heuristic search? [5M]		1	L2
13	Discuss about Knowledge Representation using Frames.	[10M]	2	L6
OR				
14	A) Write the Difference between proposition logic & predicate logic. [5M] B) Describe the issues in knowledge Representation. [5M]		2	L2
15	Describe the Depth-first Search algorithm with an example.	[10M]	3	L2
OR				
16	Discuss the Bayesian Belief networks with an example.	[10M]	3	L6

17	Explain in detail about the types of semantic networks and its components. [10M]	4	L2
OR			
18	Write short notes on:- a. Scripts b. Conceptual dependency	[5M+5M]	4
19	Discuss about Alpha – Beta Pruning with relevant examples.	[10M]	5
OR			
20	Explain in detail about MIN-MAX search procedure.	[10M]	5