Department of Computer Engineering

A.Y-2021-22

Artificial Intelligence

Question Bank

Sr.No	Question	CO	BT Level
1	Define artificial intelligence. List the applications of artificial intelligence	CO1	U
2	Briefly explain the role of robotics in industries	CO1	U
3	Explain the role of artificial intelligence in Medical industries	CO1	U
4	Justify acting humanly or Explain Turing test approach	CO1	U
5	Justify thinking humanly or Explain Cognitive Modelling approach	CO1	U
6	Justify acting rationally or Explain "the laws of though" approach	CO1	U
7	Justify thinking humanly or Explain the rational agent approach	CO1	U
8	What are the components of AI program	CO1	U
9	What is an intelligent agent?	CO2	U
10	List the types of agents. Explain each in details	CO2	U
11	Describe Simple reflex agent with example	CO2	U
12	Draw and explain architecture of Simple reflex agent	CO2	U
13	Describe Model based agent with example	CO2	U
14	Draw and explain architecture of model-based agent	CO2	U
15	Describe goal-based agent with example	CO2	U
16	Draw and explain architecture of goal-based agent	CO2	U
17	Describe utility-based agent with example	CO2	U
18	Draw and explain architecture of utility-based agent	CO2	U
19	Describe learning agent with example	CO2	U
20	Draw and explain architecture of learning agent	CO2	U
21	What is role of critic in learning agent.	CO2	U
22	What are various agent environments? Give PEAS representation for an agent.	CO2	
23	Identify the PEAS descriptor for the following: 1. Satellite image analysis system 2. Refinery controller 3. E-commerce system 4. Blood testing system 5. An automated face recognizer 6. Part picking robot 7. etc	CO2	Ap
24	Which type of agent is vacuum cleaner. Justify your answer. Specify the environment.	CO2	An
25	Which type of agent is medical diagnosis agent, Justify your answer. Specify the environments.	CO2	An
26	What are the components of problem formulation?	CO2	U
27	Explain step formulation for 1. 8 queen problem 2. 8 puzzle 3. Water jug	CO2	Ap

	4. Robot navigation		
	5. TSP		
	6. Etc		
28	Explain iterative deepening search with example	CO2	
29	Explain BFS and DFS with example	CO2	
30	Explain depth iterative deepening search with example	CO2	
31	Apply BSF/DFS/IDFS/DLFS on the following graph. Graph will provide in the exam	CO2	
32	Explain A* algorithm	CO2	
33	Apply A* algorithm on the given graph and calculate shortest path	CO2	
34	Explain alpha beta pruning with example	CO3	
35	Apply alpha beta pruning on the given tree Diagram	CO3	
36	Explain simulated annealing	CO3	
37	Explain local beam search	CO3	
38	Explain the drawbacks in hill climbing algorithm.	CO3	
39	Explain hill climbing algorithm	CO3	
40	Explain genetic algorithm	CO3	
41	Apply genetic algorithm to solve TSP problem or 8 queen's problem	CO3	
42	Identify PEAS descriptors for Wumpus world	CO4	
43	Explain various methods of knowledge representation techniques	CO4	
44	Compare between propositional logic and first order logic	CO4	
45	Explain forward chaining with example	CO4	
46	Explain backward chaining with example	CO4	
47	Apply forward or backward chaining on the given problem and generate inference	CO4	
48	Differentiate between forward and backward chaining	CO4	
49	Represent following statements in FOPL 1. 2. . .	CO4	
50	Explain resolution	CO4	
51	Problems based on resolution	CO4	
52	What is uncertainty?	CO4	
53	Explain Bayesian network with example	CO4	
54	From the given table find the probability of ……….(will mention in the exam)	CO4	
55	Explain conditional planning	CO5	
56		CO5	
57	Explain partial order planning	CO5	
58	Explain hierarchical planning	CO5	
59	Explain conditional planning	CO5	
60	Design planning agent to solve block world problem.	CO5	
61	How planning problem differ from searching problem	CO5	
62	Explain planning problem	CO5	
63	**Problem based on planning**	CO5	
64	Design planning agent to solve block world problem.	CO5	
65		CO5	

66		CO5	
67	What is planning?	CO5	
68	What is active learning?	CO5	
69	What is reinforcement learning ?	CO5	
70	Explain passive learning?	CO5	
71	Explain statistical learning?	CO5	
72	Write short notes on Hybrid approach. Explain Neuro-fuzzy system with suitable diagram	CO6	
73	Application of artificial intelligence	CO6	
74	What is natural language processing? Explain various steps required	CO6	
75	Write short notes on Hybrid approach. Explain Neuro-fuzzy system with suitable diagram.	CO6	