SET-I

St. Peter's Engineering College (Autonomous) Dullapally (P), Medchal, Hyderabad – 500100. II - Mid Term Examination – November 2024						Dept.	:	CSM
						Academic Year 2024-25		
Subject Code	:	**AS22-66PC01**	**Subject**	:	**Introduction to Artificial Intelligence**			
Class/Section	:	**B. Tech. (A, B,C,D & E)**	**Year**	:	**II**	**Semester**	:	**II**
Duration	:	120 Min	**Max. Marks**	:	**30**	**Date:**	:	

BLOOMS LEVEL					
Remember	**L1**	**Understand**	**L2**	**Apply**	**L3**
Analyze	**L4**	**Evaluate**	**L5**	**Create**	**L6**

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
1	**a**) Define state-space search in planning.	**1M**	L1	C221.4
	b) What is a planning graph?	**1M**	L1	C221.4
	c) What is hierarchical planning?	**1M**	L1	C221.4
	d) What is the primary difference between forward and backward state-space search?	**1M**	L1	C221.4
	UNIT – V			
	e) What does Bayes' Rule help compute in probabilistic reasoning?	**1M**	L1	C221.5
	f) Define a Bayesian Network.	**1M**	L1	C221.5
	g) What is the primary goal of approximate inference in Bayesian Networks?	**1M**	L1	C221.5
	h) What is the primary difference between deterministic and probabilistic reasoning.	**1M**	L1	C221.5
	UNIT – III			
	i)Evaluate the given sentence "**All Pompions were Romans**" write a well- formed formula in predicate logic.	**1M**	L5	C221.3
	j) What is unification?	**1M**	L1	C221.3

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
2	**a)** What is classical planning with example?	**4M**	L1	C221.4
	b) Write any four Key points about planning in artificial intelligence**?**	**4M**	L1	C221.4
	OR			
3	**a)** Explain the Comparison of Classical Planning and Hierarchical Planning.	**8M**	L2	C221.4

UNIT – V				
4	**a)** Explain the concept of probabilistic reasoning and its importance in decision-making under uncertainty.	**4M**	L2	C221.5
	b) Derive Bayes' Rule and explain its significance with an example.	**4M**	L2	C221.5
OR				
5	**a)** How does relational and first-order probability extend Bayesian Networks?	**8M**	L1	C221.5
UNIT – III				
6	**a)** Explain knowledge engineering process in FOL?	**4M**	L1	C221.3
OR				
7	**a)** Write short notes on universal and existential quantification in FOL?	**4M**	L1	C221.3

SET-II

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Duration	:	120 Min	**Max. Marks**	:	**30**	**Date:**	:	

BLOOMS LEVEL					
Remember	**L1**	**Understand**	**L2**	**Apply**	**L3**
Analyze	**L4**	**Evaluate**	**L5**	**Create**	**L6**

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
1	**a**) what does STRIPS stand for?	**1M**	L1	C221.4
	b) What is the primary difference between forward and backward state-space search?	**1M**	L1	C221.4
	c) What is hierarchical planning?	**1M**	L1	C221.4
	d) What is a planning graph?	**1M**	L1	C221.4
	UNIT – V			
	e) What does a conditional probability represent?	**1M**	L1	C221.5
	f) Define a Bayesian Network.	**1M**	L1	C221.5
	g) What is the primary goal of approximate inference in Bayesian Networks?	**1M**	L1	C221.5
	h) What does Bayes' Rule help compute in probabilistic reasoning?	**1M**	L1	C221.5
	UNIT – III			
	i) Define Wumpus world?	**1M**	L1	C221.3
	j) What is unification?	**1M**	L1	C221.3

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
2	**a)** What is the knowledge representation on Internet Shopping world?	**8M**	L1	C221.4
	OR			
3	**a)** Explain the concept of classical planning with an example.	**4M**	L2	C221.4
	b) Describe the forward and backward state-space search algorithms with a comparison.	**4M**	L6	C221.4
	UNIT – V			

4	**a)** Explain how probabilistic reasoning is applied in real-world scenarios, such as medical diagnosis or artificial intelligence.	**8M**	L2	C221.6
	OR			
5	**a)** How is knowledge represented in an uncertain domain using probabilistic methods.	**4M**	L1	C221.5
	b) Describe the semantics of Bayesian Networks with an example.	**4M**	L6	C221.5
	UNIT – III			
6	**a)** Difference between backward chaining and forward chaining	**4M**	L1	C221.3
	OR			
7	**a)** Define Ontological Engineering? Explain with the diagram the upper ontology of the world.	**4M**	L1	C221.3

SET-III

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Subject Code	:	**AS22-66PC01**	**Subject**	:	**Introduction to Artificial Intelligence**			
Class/Section	:	**B. Tech. (A,B,C,D & E)**	**Year**	:	**II**	**Semester**	:	**II**
Duration	:	120 Min	**Max. Marks**	:	**30**	**Date:**	:	

BLOOMS LEVEL					
Remember	**L1**	**Understand**	**L2**	**Apply**	**L3**
Analyze	**L4**	**Evaluate**	**L5**	**Create**	**L6**

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
1	**a**) What is hierarchical planning?	**1M**	L1	C221.4
	b) What is a planning graph?	**1M**	L1	C221.4
	c) What does STRIPS stand for?	**1M**	L1	C221.4
	d) What is the primary difference between forward and backward state-space search?	**1M**	L1	C221.4
	UNIT – V			
	e) Define a Bayesian Network?	**1M**	L1	C221.5
	f) What does a conditional probability represent?	**1M**	L1	C221.5
	g) What is the primary goal of approximate inference in Bayesian Networks?	**1M**	L1	C221.5
	h) What is the primary difference between deterministic and probabilistic reasoning.	**1M**	L1	C221.5
	UNIT – III			
	i)Evaluate the given sentence "**All Pompions were Romans**" write a well- formed formula in predicate logic.	**1M**	L5	C221.3
	j) What is unification?	**1M**	L1	C221.3

Q. No	Question (s)	Marks	BL	CO
	UNIT – IV			
2	**a)** Explain Planning and Acting Nondeterministic Domains in artificial intelligences	**8 M**	L2	C221.4
	OR			
3	**a)** Explain the concept of classical planning with an example.	**4M**	L2	C221.4
	b) Describe the forward and backward state-space search algorithms with a comparison.	**4M**	L6	C221.4

	UNIT – V			
4	**a)** Explain the concept of probabilistic reasoning and its importance in decision-making under uncertainty.	**4M**	L2	C221.5
	b) Derive Bayes' Rule and explain its significance with an example.	**4M**	L2	C221.5
	OR			
5	**a)** How is knowledge represented in an uncertain domain using probabilistic methods	**4M**	L1	C221.5
	b) Describe the semantics of Bayesian Networks with an example.	**4M**	L6	C221.5
	UNIT – III			
6	**a)** Explain backward chaining process?	**4M**	L1	C221.3
	OR			
7	**a)** Difference between backward chaining and forward chaining	**4M**	L4	C221.3