## **End Semester Examination (ESE) Aug 2021**

Semester – 6<sup>th</sup>

# Subject – Artificial Intelligence Subject Code – CO – 606

### **New Syllabus**

## Total Marks – 56

#### Time – 2 hours 30 minutes.

Q.No.		Marks
1	Fill in the blanks	1 x 4
а	Inferential knowledge approach represents knowledge in the form of	
	formal	
b	NLP stands for	
С	The Rete algorithm works on chaining.	
d	In Prolog cat(tom) is a relation and sister (jill, jack) is a	
	relation.	
2	State true or false.	1 x 3
а	Simple relational knowledge representation method has very less scope	
	of inference.	
b	State space is the set of all possible states.	
С	Machine learning is the autonomous acquisition of knowledge through	
_	the use of computer programs.	_
3	Choose the correct option	1 x 3
а	Which of the following is the component of learning system?	
	i) Goal ii) Model	
_	iii) Learning rules iv) All of these	
b	Inductive learning involves finding a	
	i) Consistent Hypothesis ii) Inconsistent Hypothesis	
	iii) Regular Hypothesis iv) Irregular Hypothesis	
С	Which term is used for describing the judgmental or commonsense part	
	of problem solving?	
	i) Critical ii) Heuristic	
	iii) Value based ii) Analytical	_
Q4: a	Write briefly about the different types of agents.	3
b	Explain the different constituents of a production system.	3
С	Give a brief note on different non-production system architectures.	3
d	Briefly explain the three main things that is used in Prolog programming.	3
е	Represent the following predicates:	3
	i) Cats like fish	
	ii) Gita can sing and dance	
	iii) All even numbers are divisible by 2	
Q5: a	State the advantages of BFS and DFS.	2 + 2
b	Differentiate between forward and backward reasoning.	4

С	State the different properties of knowledge representation.	4
d	Explain any two inference rules.	4
Q6: a	Discuss the different types of learning methods.	5
b	Explain the different components of an Expert System.	5
С	What are quantifiers ? Differentiate between Markov and Rete	1+4
	algorithm.	

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