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Total No. of Questions: 13] [Total No. of Pages: 02

# Paper ID [A0225]

(Please fill this Paper ID in OMR Sheet)

## BCA (601) (S05) (O) (LE) (Sem. - 6<sup>th</sup>)

#### ARTIFICIAL INTELLIGENCE

Time: 03 Hours Maximum Marks: 75

#### **Instruction to Candidates:**

- 1) Section A is Compulsory.
- 2) Attempt any **Nine** questions from Section B.

#### **Section - A**

 $Q1) (15 \times 2 = 30)$ 

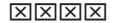
- a) Define the term Artificial Intelligence.
- b) Write is importance of Knowledge Representation in AI.
- c) What are different problems faced in AI?
- d) What are states?
- e) What are the advantages of Depth first search?
- f) What is Heuristic function?
- g) Why do we need AI assumptions?
- h) What is KR? Explain with examples?
- i) How does knowledge progress?
- j) Explain the rules of modus ponens.
- k) What is proof by refutation?
- 1) What are semantic networks?
- m) What is scripts?
- n) What is pragmatic processing?
- o) What are constants?

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### **Section - B**

 $(9 \times 5 = 45)$ 

- **Q2**) What are different branches of AI? Explain in detail.
- Q3) Describe algorithms of Depth first search and Breadth first search.
- **Q4)** Give an example of a problem for which breadth-first search would work better than depth-first search.
- **Q5**) What are different issues arise in KR?
- **Q6**) What are different usages of Frames?
- **Q7**) Is AI possible without logic? Explain.
- Q8) Discuss the method of natural deduction through forward and backward chaining method.
- Q9) Discuss the steps in natural language processing.
- Q10) What are advantages and disadvantages of Semantics networks?
- Q11) How can parsing be using transition networks.
- Q12) Explain RETE Machine algorithm.
- Q13) Explain Application of Artificial Intelligence in detail.



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