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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. - 6th)

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 × 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?

l) What are semantic networks?

m) What is scripts?

n) What is pragmatic processing?

o) What are constants?

Section - B

(9 × 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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