

Roll No:

Total No. of Questions :07]

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Paper ID [B0223]

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BCA (Sem. - 6th)**ARTIFICIAL INTELLIGENCE (BC - 601)****Time : 03 Hours****Maximum Marks : 60****Instruction to Candidates:**

- 1) Section - A is **compulsory**.
- 2) Attempt any **Four** questions from Section - B.

Section - A**Q1)****(10 × 2 = 20)**

- a) What is a frame problem? Discuss.
- b) What are the characteristics of a AI problem?
- c) What is state space search?
- d) What is Conflict Resolution Strategies?
- e) Use semantic net to represent the following fact
“Every dog has bitten a postman”
- f) Use conceptual dependency to represent the following fact
“Every dog has bitten the postman”
- g) What is an inference engine?
- h) What is a Rule based programming?
- i) What is a monotonic Production System?
- j) What is learning by induction?

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Section - B**(4 × 10 = 40)**

- Q2)** What are the various parsing techniques in natural language processing. Discuss.
- Q3)** Derive a parse tree for the sentence "RAM Hates the Loin" where the following rules are used
S- > NP VP
NP- > N
NP- > DET N
VP- > V NP
DET- > the
V- > Hates
N- > Ram/loin
- Q4)** How scripts and frames are used to represent the knowledge. Explain with example.
- Q5)** Express the following facts in predicate calculus and convert them in clause form
(a) Blondes have more fun.
(b) All men are created equal.
(c) You always hurt the one you love. www.a2zpapers.com
(d) For a spacecraft to fail, every copy of one of its system must malfunction.
- Q6)** What are the various characteristics of production system?
- Q7)** What are the various Heuristics Search techniques used in Artificial intelligence?

