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Total No. of Questions : 09] [Total No. of Pages : 02

Paper ID [A0480]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 7th/8th)

SYMBOLIC LOGIC & LOGIC PROCESSING (CS - 402)

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

Q1) *(10 × 2 = 20)*

a) What is recursion explain with example.
b) To calculate fabonacci series which method will be best.
c) What is the basic behind first order logic?
d) What do you think about quantifiers?
e) Where you find application of SLD trees?
f) Name some extra logic features.
g) What do you think about features of prolog?
h) Name some types of prepositional logics.
i) How normal forms can be used?
j) Briefly describe the symbolic logic?

Section - B

(4 × 5 = 20)

Q2) Differentiate between cut & negation care studies.

Q3) How horn clauses can be used?

Q4) What is structured data representation?

Q5) Explain world knowledge representation in first order logic?

Q6) What is prolog and what do you think about non-declarative features of prolog?

Section - C

(2 × 10 = 20)

Q7) Explain how represent world knowledge using prepositional logic? Also what are the validity and consequence?

Q8) Explain the importance and application of fuzzy logic.

Q9) Write short notes on:

(a) Neural Networks.

(b) Normal Forms.