

S.D.E.

M.C.A. Sem - V : WINTER - 2018

SUBJECT: ARTIFICIAL INTELLIGENCE AND APPLICATIONS

Day: Thursday
Date: 29/11/2018

W-2018-4817

Time: 10.00 AM TO 1.00 PM
Max. Marks: 80

N.B:

- 1) Attempt **ANY FIVE** questions from Section-I and **ANY TWO** questions from Section-II.
- 2) Answer to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION-I

- Q.1 Explain Unification algorithm. (10)
- Q.2 Define Artificial Intelligence and explain its applications. (10)
- Q.3 Explain knowledge representation with frames. (10)
- Q.4 Explain forward chaining and backward chaining with example. (10)
- Q.5 Explain hill climbing technique. (10)
- Q.6 Explain production system and its components. (10)
- Q.7 Write short note on (**ANY TWO**): (10)
- a) Semantic net
 - b) Fuzzy logic
 - c) Depth first search

SECTION-II

- Q.8 a) Write a program to find factorial of a number. (07)
- b) Write a program to display odd and even numbers between 1 to 100. (08)
- Q.9 Write a menu driven program using prolog/lisp.
- a) To calculate sum of digits of an input number. (07)
- b) To check input number is prime or not. (08)
- Q.10 Consider the following sentences. (15)
- a) Ram likes all kind of foods
 - b) Mangos are food
 - c) Chicken is food
 - d) Anything anyone eats and isn't killed for a food
 - e) Seeta eats peanuts and is still alive
 - f) Leela eats everything Seeta eats
- Translate these sentences into formulae in predicate logic. Prove that Ram likes peanuts using backward chaining.

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