(i) Printed Pages : 2

(ii) Questions : 9

Roll No. ....

Sub. Code : | 3 | 6 | 1 | 5 |

Exam. Code : | 0 | 4 | 6 | 0 |

M.Sc. Information Technology 2nd Semester

(2042)

ARTIFICIAL INTELLIGENCE

Paper—M.S.-67

Time Allowed : Three Hours]   [Maximum Marks : 80

Notes :—Attempt **FIVE** questions in all. Question No. **9** (Section E) is compulsory and select **ONE** question each from Sections A to D.

SECTION—A

1. Discuss uninformed and informed search strategies with two examples each. $8 \times 2 = 16$

2. What are three hill climbing issues ? Differentiate between A* and Best first search. What is shortcoming of generate-and-test technique ? $6 + 6 + 4 = 16$

SECTION—B

3. Write knowledge representation issues. Discuss predicate logic with examples. $8 + 8 = 16$

4. Differentiate between minimax and alpha-beta cut off working. Differentiate between working of resolution principle. $8 + 8 = 16$

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SECTION—C

5. What makes an automated system an expert system ? Discuss an expert system example in detail with its components.   16

6. What is natural language processing system ? Discuss parts of natural language processing system in detail.   16

SECTION—D

7. (i) In Prolog, write programs for linear search and any sort algorithm.

   (ii) Discuss iteration concept in Prolog with example. 8+8=16

8. Discuss Prolog examples for string manipulation, elementary data types and recursion.   6+5+5=16

SECTION—E

(Compulsory Question)

9. (a) How turing test works in AI problems ?

   (b) Discuss an example of semantic net with diagram.

   (c) How syntactic parsing works for "I am doing hardwork for AI exam".

   (d) Write a Prolog program to display first 200 even numbers.

                         4×4=16