Roll No. ....

DD–792

M. Sc. (Fourth Semester)
EXAMINATION, 2020

COMPUTER SCIENCE

Paper Second

(Artificial Intelligence and Expert System)

Time : Three Hours

Maximum Marks : 100

Note : Attempt any *two* parts from each Unit. All questions carry equal marks.

Unit—I

1. (a) Describe the characteristics of artificial intelligence.

   (b) What is problem solving ? Discuss problem solving cycle.

   (c) Compare forward and backward chaining.

Unit—II

2. (a) Discuss Alpha-Beta cut-offs.

   (b) Give any *one* example of constraint satisfaction problem.

   (c) Write a brief note on Hill Climbing.

Unit—III

3. (a) Explain Skolemization reslolution principle and unification.

   (b) What do you mean by recursion ? Write Lisp program using it.

   (c) Describe the features of PROLOG.

Unit—IV

4. (a) What do you understand by natural language processing ? Discuss semantic analysis.

   (b) Explain the component of planning systems.

   (c) Write Bayes theorem. Discuss Bayesian networks.

Unit—V

5. (a) What are expert systems ? Write the application of expert systems.

   (b) Explain the concept of learning by induction.

   (c) Write a brief note on MYCIN.