FACULTY OF INFORMATICS

MCA 2 Years Course- II Semester (Supply) Examination, April 2022
Subject: Artificial Intelligence

Time: 3 Hours **Max. Marks: 70**
(Missing data, if any, may be suitably assumed)

**Note: Answer any five questions from the following.
All questions carry equal marks.**

1. (a) Introduce Python programming language with its features.
   (b) Write the syntax and example program for list functions:
   len(),max(),list(),append(),count().

2. (a) Explain opening and closing files i.e open() and close().
   (b) Elaborate class inheritance with an example program.

3. (a) Illustrate Breadth-first Search tree generation with an example.
   (b) Explain steps of alpha-beta pruning.

4. (a) Give an idea about hill climbing and Game playing.
   (b) Explain the concept of iterative depending A*.

5. (a) Enumerate the rules of natural deduction system.
   (b) State the results of resolution process.

6. (a) List the steps of skolemization procedure.
   (b) How to represent knowledge as semantic network brief.

7. (a) With a neat figure, discuss the architecture of an expert system.
   (b) State and prove bayes theorem.

8. (a) Brief the theory of certainity factor.
   (b) What are the advantages and disadvantages of Bayesian method?

9. (a) Explain about simple transition network.
   (b) Brief design of ontology and parsers.

10. (a) Describe the definite clause grammar.
    (b) Tell about universal networking language.

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