

Reg. No. :

Name :

Fourth Semester M.C.A. Degree (Regular/Supplementary/Improvement)
Examination, July 2017
Elective – II : MCA 4E 05 : ARTIFICIAL INTELLIGENCE
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **any ten** questions. **Each** question carries **three** marks :

1. What are the goals of AI ?
2. Mention the importance of reference rules in AI.
3. Define knowledge hypothesis.
4. What are inference rules in AI ?
5. Mention the uses of lambda function.
6. What are the significant features of heuristic in game strategies ?
7. Define expert system.
8. How knowledge representation in predicate logic ?
9. Compare and contrast backward and forward reasoning.
10. Mention the uses of PROLOG program in AI.
11. What are the frame works of machine learning process ?
12. What are the significant features of genetic algorithm ?

(10×3=30)

SECTION – B

Answer **all** questions. **Each** question carries **ten** marks :

13. a) List out the various problems of AI, explain the solutions for each one briefly. 10

OR

- b) Explain different calculus require for solving specific problems of AI, discuss with suitable examples. 10

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14. a) Define a state space search tree. Discuss the classification of search problems with suitable examples. 10
- OR
- b) Compare and contrast hill-climbing and best-first search techniques neatly. 10
15. a) Discuss deterministic and non-deterministic parses with proper rules and assumptions. 10
- OR
- b) With suitable examples explain briefly agent based and distributed problem solving neatly. 10
16. a) Describe the importance of various knowledge representation problems and their solution briefly. 10
- OR
- b) Discuss the facilities available in LISP and PROLOG for developing expert systems, explain with suitable examples. 10
17. a) Explain the various strategies of symbol based and corresponding frame work functions of machine learning algorithms. 10
- OR
- b) How artificial life is different from social based learning, discuss with suitable examples ? 10