

Mid-West University
Examinations Management Office

End Semester Examinations 2081

Bachelor level/ B. Sc. / CSIT 5th Semester

Time: 3 hours

Subject: Artificial Intelligence (COM451)

Full Marks: 60

Pass Marks: 30

Candidates are required to give their answer in their own words as far as Practicable. The figures in the margin indicate full marks.

Group A

Very short answer questions. Attempt all the questions.

[8x2 = 16]

1. What do you mean by Intelligence?
2. Define horn clauses.
3. State Modus Ponens Rule.
4. What is the importance of Search in AI?
5. How can you define machine learning?
6. Differentiate between observable and semi-observable environment.
7. What do you mean by intelligent Agent?
8. Define Vacuum Cleaner world. Illustrate with diagram.

Group B

Short answer questions. Attempt *any five* questions.

[5x4 = 20]

9. Explain rule based deduction system.
10. What do you mean by PEAS? Write the PEAS description for Part Picking Robot.
11. Define Artificial Neural Networks. Write its applications.
12. What do you mean by Problem Solving in AI? What are the general steps in problem solving?
13. Explain Bidirectional Search with suitable example.
14. Describe Expert System. Also illustrate its advantages.

Group C

Long answer questions. Attempt *any three* questions.

[3x8 = 24]

15. What is Natural Language Processing? Explain its application.
16. What is Machine Vision? Explain its applications. Describe A* search algorithm.
17. Define Production System. Describe the components of Production System.
18. What do you mean by Semantic Network? Explain. Illustrate the Benefits of Semantic Network.

The End