

FACULTY OF SCIENCE

CIT478 Artificial Intelligence – (2 Credits)

Instruction: Answer Question 1 (25 marks) and any other three (15 marks each) 2¹/₂ Hours.

- 1(a) Describes four major areas of Artificial Intelligence (10 marks)
- 1(b) Discuss the term “ROBOTICS” (7 marks)
- 1(c) Explain four application areas of Robots (8 marks)
- 2(a) Enumerate four fields that are connected with AI (**5marks**)
- 2(b) Describe five types of Robots (5 marks)
- 2(a)** Explain the term “Agent “ in Artificial Intelligence (5 marks)
- 3(a) Enumerate five different environments in which an Agent can operate on. (5 marks)
- 3(b) Define the term ‘Heuristic Search’ and mention four types of AI Search (5 marks)
- 3(c) Identify and explain three Characteristics of a good knowledge representation (5 marks)
- 4(a) Explain five things that AI can perform (5 marks)
- 4(b) Define Expert System and identify three types of Expert Systems (5 marks)
- 4(c) Discuss five advantages of an Expert System. (5 marks)
- 5(a) Enumerate five disadvantages of an Expert System (**5marks**)
- 5(b) Describe a Goal Directed Agent with a diagram (5 marks)
- 5(c) Identify five features of Knowledge Representation Language (5 marks)
- 6(a) Discuss the following terms: (6 marks)
 - (i) Observability
 - (ii) Determinism
 - (iii) Dynamism
- 6(b) Explain four tasks in Natural Language Processing (4 marks)
- 6(c) Mention and explain three application areas for LISP (5 marks)