



NATIONAL OPEN UNIVERSITY OF NIGERIA

University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja
Faculty of Sciences

July 2017

Course Title: Artificial Intelligence
Course Code: CIT 478 – (2 Credits)

Answer Question 1 and any other three questions in 2½ Hours.

1 (a) Describe the term Artificial Intelligence (AI) and Outline three tasks that constitute intelligent behavior (9 marks)

1(b) What is the difference between Uninformed and Informed Search and classify the following into the two type of search:

- (i) Best – First Search
- (ii) A Greedy Algorithm
- (iii) A Beam Search
- (iv) Hill Climbing
- (v) Breadth-first search
- (vi) Tree Search
- (vii) Depth-first search

(8 marks)

1(c) Explain the term Expert System and list it's four (4) merits (8 marks)

2. (a) Describe Goal directed agent with examples (7 marks)

2. (b) Mention four tasks that have successfully achieved by Today's AI systems(4 marks)

2.(c) List four (4) areas where Robots can be used (4 marks)

3. (a) What is an Intelligent Agent? List it's characteristics.(7 marks)

3.(b) Outline four (4) examples of Intelligent Agents (4)

3(c) Mention four (4) different types of Expert System(4 marks)

4. (a) Explain the term Knowledge Representation (KR) and List three features (7 marks)

4(b) Outline four (4) basic characteristics a good knowledge representation can cover (4 marks)

4(c) Identify any four (4) domain of AI (4 marks)

5(a) Compare LISP and Prolog programming Languages (3 marks)

5(b) Write short notes on the following

(i) Robotics

(ii) Rationality

(iii) Knowledge Base

(3 marks each)

5(c) Identify three (3) areas where Lisp has been used (3 marks)