



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA**  
**FACULTY OF COMPUTING**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2025\_1 EXAMINATION**

**Course Code:** CIT478

**Course Title:** Artificial Intelligence

**Credit:** 2 units

**Time allowed:** 2 Hours

**Instruction:** Answer Questions **ONE (1)** and any other **TWO (2)**

**QUESTION ONE**

- a. Summarize the ideas behind Turing Test (**5marks**).
- b. Discuss the type of database for knowledge management (8marks).
- c. Discuss how knowledge representation can best be understood in terms of five distinct roles it plays (5marks).
- d. Schematically illustrate the search problem (10marks).
- e. List the Expert System areas of commercial applications (2marks)

**QUESTION TWO**

- a. Distinguish between two known uninformed search techniques in Artificial Intelligence (**5marks**).
- b. Describe the importance of knowledge representation in the function of computer system (**5marks**).
- c. Write short note on Information Processing Language (**5marks**).
- d. List five(5) types of AI Search Techniques (**5marks**)

**QUESTION THREE**

- a. Outline the importance of Machine Learning application in Natural Language Processing (**5 marks**).
- b. Discuss the following Terms (**3 marks each**):
  - i. Internet Agents
  - ii. Tree search algorithms:
  - iii. Inference Rule
  - iv. Actuators

**QUESTION FOUR**

- a. Identify the differences between fully observable and partially observable intelligent agent environment. (6marks)
- b. Elaborate the three major kind of people that are involved in expert system interaction (**9marks**).
- c. Highlight five(5) common tasks that are frequently performed in Natural Language Processing ? (5 marks)

**QUESTION FIVE**

- a. Outline the generic best first search algorithm. (9 marks)
- b. Differentiate between Glass- Box and Black- Box Evaluation (**6marks**)
- c. Identify the major domains of Artificial Intelligence (5marks)