



[University of Choice]

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
[MMUST]**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

SECOND YEAR FIRST SEMESTER REGULAR EXAMINATIONS

**FOR THE DEGREE
OF**

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

COURSE CODE: BCS 217

COURSE TITLE: INTRODUCTION TO ARTIFICIAL INTELLIGENCE

DATE: 07/12/2022

TIME: 12.00-2.00PM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and choose any other Two.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over. ►

QUESTION ONE [30 MARKS]

- a) Define the term Natural Intelligence. {2 marks}
- b) Briefly explain the four things that are used in differentiating the types of intelligence. {8 marks}
- c) Give a brief outline of the of four early branches of artificial intelligence. {8 marks}
- d) Define the term AI to represent systems that act rationally specifying the author[s]. {4 marks}
- e) What benefits does Artificial Intelligence bring to modern families? {8 marks}

QUESTION TWO [20 MARKS]

- a) What is the difference between the searches in Artificial Intelligence? {4 marks}
- b) How can a real time search problem be improved? Explain briefly. {6 marks}
- c) Explain the turing test application in the modern world. {10 marks}

QUESTION THREE [20 MARKS]

- a) According to AI, human beings are still better than computers. Explain. {10 marks}
- b) Explain knowledge representation in terms of the unique role it plays in AI. {10 marks}

QUESTION FOUR [20 MARKS]

- a) Describe the distinction between the early and later development of AI. {8 marks}
- b) Define the real time application of an intelligent agent. {4 marks}
- c) Construct a PEAS for an Insurance Company agent. {8 marks}

QUESTION FIVE [20 MARKS]

- a) Expert systems differ from conventional computer systems in several ways. Using a diagram differentiate the two types of systems. {10 marks}
- b) In Artificial intelligence, what do you understand by knowledge based and experimental Systems. {10 marks}