



(Knowledge for Development)
KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR THREE SEMESTER ONE EXAMINATIONS
FOR THE DEGREE OF BACHELOR OF SCIENCE
COMPUTER SCIENCE**

**COURSE CODE : CSC360E
COURSE TITLE : INTELLIGENT AGENTS**

DATE: 14 / 12 / 2022 TIME: 9:00 P.M – 11:00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

- a) Describe the following terms
- I. Agent Function
 - II. Performance Measure
- [2 Marks]
- b) Differentiate between rationality and omniscience
- [4 Marks]
- c) Describe the following terms
- i. Ubiquity
 - ii. Interconnection
 - iii. Human orientation
- [6 Marks]
- d) Describe the characteristics of hybrid architectures
- [4 Marks]
- e) Describe what Brooks proposed in the three theses
- [6 Marks]
- f) With the aid of a diagram describe the types of coordination
- [8 Marks]

QUESTION TWO [20 MARKS]

- a) Describe end means reasoning
- [4 Marks]
- b) Describe how do norms influence the behaviour of the agent?
- [4 Marks]
- c) Compare and contrast the terms knowledge, representation, and reasoning.
- [6 Marks]
- d) Describe any **THREE** application areas of Intelligent agents
- [6 Marks]

QUESTION THREE [20 MARKS]

- a) Explain the term Agent architecture
- [2 Marks]
- b) Describe GAIA methodology
- [6 Marks]
- c) List the components of a robot
- [6 Marks]
- d) Describe ontologies
- [6 Marks]

QUESTION FOUR [20 MARKS]

- a) Describe the **TWO** main viewpoints in agent development
- [4 Marks]
- b) Explain the properties of intelligent agents
- [6 Marks]
- c) Compare and contrast Prometheus and Tropos Agent oriented methodology
- [10 Marks]

QUESTION FIVE [20 MARKS]

- a) Describe the BDI architecture **[6 Marks]**
- b) Describe the characteristics of Deliberative Architectures **[4 Marks]**
- c) Describe electronic institutions **[4 Marks]**
- d) Differentiate between static and dynamic environment **[6 Marks]**