KIBABII UNIVERSITY COLLEGE

UNIVERSITY EXAMINATIONS
2013/2014 ACADEMIC YEAR

YEAR 1 SEMESTER 2 EXAMINATIONS

FOR THE DEGREE OF

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

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COURSE CODE: MIT 823

COURSE TITLE: Artificial Intelligence and Expert Systems

INSTRUCTIONS
Answer question one and any other two questions only
All questions carry 20 marks each

1. (a)   What are the three most common properties of logical systems.   (6 marks)

 (b) Explain what computational neuroscience is?   (6 marks)

 (c) Discuss the importance of modelling in Artificial Intelligence   (4 marks)

 (d) Why is search necessary in problem solving using artificial intelligence systems?
Give any two reasons   (4 marks)

2. At Comptec Company, the managers needed expertise employees hired. The Head
of Human Resource Department fronted for hiring expertise human beings while the
Head of Information and Communication Technology insisted on acquiring expert
systems.

 (a) Discuss characteristics of human expert behaviour.   (7 marks)

 (b) Discuss the grounds that the Human Resource Manager can use to justify against
acquiring expert systems.   (8 marks)

(c) Identify factors that would llimit adoption of Expert Systems use by a Human
Resource Department in a manufacturing company   (5 marks)

3. (a) Identify the broad reasoning approaches you would have an intelligent agent use
     (10marks)

(b) Explain sources of uncertainty that agents have to work with in reasoning
     (10 marks)

4. Computers will never replace human beings despite research going on in Artificial
Intelligence.

(a) Explain what a computer would need to pass the Turing test?   (7 marks)

 (b) Discuss why Artificial Intelligence advancement is likely to kick man out of his
career.   (8 marks)

(c) Why would it be necessary of Master of Information Technology students to learn
     Neural Networks   (5 marks)

5. (a) Identify the four types of explanations commonly used in expert systems
     (4 marks)

   (b) Explain what data driven reasoning is as used in expert systems   (4 marks)
   (c) Explain the common features that you would ensure are development within a
     systems you are developing for it to pass a test of it being an expert system
     (12 marks)

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