JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BUSINESS & ECONOMICS

UNIVERSITY EXAMINATION

4TH YEAR 2ND SEMESTER 2017/2018 ACADEMIC YEAR

KISII CAMPUS

COURSE CODE: SCS 437

COURSE TITLE: INFORMATION SYSTEM APPLICATIONS

EXAM VENUE: KISII   **STREAM: Y 4 SEM 2**

DATE: **EXAM SESSION: APRIL**

TIME: 2   HOURS

Instructions:

1. Answer Question ONE (COMPULSORY) and ANY other 2 questions
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.

QUESTION ONE 30 MARKS

a. Describe the problem solving paradigm of an expert system   (4 marks)

b. Describe the THREE levels of management, and explain differing information requirements
at each level   (6 marks)

c. By use of an example, describe how an inference engine can be used to represent knowledge
in a rule base.   (8 marks)

d. Using examples, describe any two metrics that can be used to assess the quality of
information in an organization   (4 marks)

e. Explain why knowldge acquistion is often reffered to as Expert System bottleneck (4 marks)

f. Using a diagram, describe the main components of a rule-bases system   (4 marks)

QUESTION TWO 20 MARKS

a. Discuss with examples how a Business Intelligence system aids management control
activities   (5 marks)

b. Explain the basic difference between a decision support system and artificial intelligence
systems?   (5 marks)

c. Describe the features of Executive Information System and highlight its advantages and
disadvantages   (5 marks)

d. Explain the difference between a management information system and a decision-support
system as they relate to middle managers.   (5 marks)

QUESTION THREE 20 MARKS

a. Explain the advantages and disadvantages of a manager being the direct
user of an On Line Analytical Processing (OLAP) tool rather than providing an
intermediary to operate the OLAP tool on behalf of the manager.   (4 marks)

b. Using a suitable diagram, describe the components of a Decsion Suport System and
highlight its advangates and disadvantages   (5 marks)

c. Develop a conceptual model of an expert system to play Dueller   (6 marks)

d. What is the purpose of an information system from a business perspective? What role
does it play in the business information value chain?   (5 marks)

QUESTION FOUR 20 MARKS

a. Discuss using examples the attributes of each of the following decsision support system

    i.   Status Inquiry System   (5 marks)

    ii.   Information Analysis System   (5 marks)

b. Explain how the features of a decision support System can be used to help implement strategies that require a tighter integration with an organisations suppliers and customer

                                      (10 marks)

QUESTION FIVE 20 MARKS

a. By use of a well labled disgram, describe an expert system, its advantages and disadvantaegs   (10 marks)

b. Explain the main purpose of an expert system   (5 marks)

c. Describe the phases of designing an expert system   (5 marks)