



# **JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY KISII CAMPUS**

## **SECOND YEAR SEMESTER ONE EXAMINATION FOR THE DEGREE OF MASTERS IN INFORMATION SYSTEMS**

**COURSE Title:                   DECISION SUPPORT SYSTEMS**  
**COURSE CODE:                IIS 5212**

### **INSTRUCTIONS**

- i. Question consist of five question
- ii. Answer Question ONE and any other TWO Questions
- iii. Write the answers in the booklet provided

### **Question 1**

- (a) What is DSS? (2 Marks)
- (b) "DSS a powerful tool for decision makers". Discuss. (6 Marks)

- (c) Discuss four common characteristics of DSS and how they relate to the decision making process. (6 Marks)
- (d) Describe and give an example of each pattern of DSS use. (6 Marks)
- (e) Explain the roles of the various types of the decision users. (4 Marks)
- (f) Discuss the essential steps in process of Decision Making. (6 Marks)

**Question 2**

- (a) Discuss the purpose of Decision Support System in MIS. (4 Marks)
- (b) Discuss the Hebert A. Simon 'Decision Support System Model'. (6 Marks)
- (c) List and briefly describe the classes of decision makers (5 Marks)

**Question 3**

- (a) What are the benefits of using a heuristic search approach? (3 Marks)
- (b) Compare and contrast the concepts of effectiveness and efficiency. (3 Marks)
- (c) Define sensitivity analysis and state its value to the decision maker. (3 Marks)
- (d) Identify and discuss two characteristics of intelligent agents. (3 Marks)
- (e) Explain three main categories of potential negative impacts of an EIS on organizations. (3Marks)

**Question 4**

- (a) Briefly describe the five dimensions of organizational decision. (5 Marks)
- (b) (i) What is politics? (2 Marks)
- (ii) Why is politics important to DSS design? (2 Marks)
- (c) Compare influence diagram and decision tree methods of modelling a problem structure. (6 Marks)

**Question 5**

- (a) "Executive Information Systems (EIS) is a substitute for other forms of information technology and computer-based systems". Discuss. (4 Marks)
- (b) Compare knowledge engineering with traditional information systems development. (5 Marks)
- (c) (i) Describe the basic structure of an artificial neural network. (3 Marks)
- (ii) What is the purpose of each layer? (3 Marks)