



# **SOUTH EASTERN KENYA UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018**

### **FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND BACHELOR OF INFORMATION TECHNOLOGY**

#### **SCI 310: MANAGEMENT INFORMATION SYSTEM**

**DATE: 7<sup>TH</sup> DECEMBER, 2017**

**TIME: 1.30 -3.30 PM**

#### **INSTRUCTIONS TO CANDIDATES**

- a) Answer **ALL** questions from section A(Compulsory)
  - b) Answer **ANY TWO** questions from section B
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#### **SECTION A (30 Marks) - Compulsory**

##### **Question One**

- a) Define the following terms as used in information systems: **(3 Marks)**
  - i) Organization;
  - ii) Packet switching;
  - iii) Information System.
- b) Explain three strategic business objectives of Information Systems in an organization. **(3 Marks)**
- c) “It is often said that the application of Information Technology “*flatten*” organization structure.” Justify this statement. **(2 Marks)**
- d) E-commerce is preceded by the Electronic Data Interchange (EDI) technology.
  - i) Describe the term Electronic Data Interchange. **(2 Marks)**
  - ii) State three advantages of an EDI System to an organization. **(3 Marks)**

- e i) Distinguish between Management Information System and Transaction processing Systems. **(2 Marks)**
- ii) State three characteristics of a Decision Support System. **(3 Marks)**
- f) Describe the four phases of decision making according to Simon (1960)'s decision making model. **(4 Marks)**
- g i) Explain three categories of e-Commerce. **(3 Marks)**
- ii) E-commerce continues to expand globally, state three advantages of this expansion. **(3 Marks)**
- h) Computer software, books, music and other creative works can be digitized and distributed over the internet. Examine two problems faced in the protection of intellectual property rights arising from the use of the internet. **(2 Marks)**

**SECTION B (40 Marks): ANSWER ANY TWO QUESTIONS**

**Question Two**

- a) Distinguish between the following: **(6 Marks)**
- i) Intranet and Internet
  - ii) Batch processing mode and online transaction processing mode
  - iii) Bus topology and Star topology
- b) Wangu Ltd is in the process of automating its operations. The senior management of Wangu Ltd are however not aware of the benefits of computer networks to the organization. As an expert, explain four benefits to the senior management. **(4 Marks)**
- c) Explain three Mintzberg's classification of organizational structure. **(6 Marks)**
- d) Describe two economic theories related to Information systems in organization. **(4 Marks)**

**Question Three**

- a) Explain four characteristics of a digital firm. **(4 Marks)**
- b) Discuss the ethical, social and political issues raised by use of information systems **(6 Marks)**
- c) When building a Management Reporting System (MRS), it is recommended that a phased approach, with prototyping, is adopted by the development team.
- i) Define the term prototyping. **(1 Mark)**
  - ii) Outline three reasons for prototyping a MRS. **(3 Marks)**
  - iii) With the aid of a diagram, describe the steps during the prototyping process of MRS development. **(6 Marks)**

#### **Question Four**

a) The business Information Technology planning process focuses on discovering innovative approaches to satisfying an organization's customer and business value goals. Explain four components of business IT planning process. **(4 Marks)**

b) Describe the supply chain processes. **(5 Marks)**

c) Describe three types of electronic payment systems. **(6 Marks)**

d) A financial services company has been developing and maintaining in-house relational database systems for many years. It has an IT Department with a staff of 20 which include staff that perform database development and database administration activities. Current applications that the IT Department Support include a personnel database system, which keeps details of staff and training, and a customer database system, which keeps details of the company's major customers and the company products which they purchase. The company is interested in the development of a data warehouse.

i) Define the term data warehouse. **(1 Mark)**

ii) You have been asked to assess the feasibility of developing this data warehouse. Discuss two factors considered toward this data warehouse. **(4 Marks)**