JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY-BUSIA LEARNING CENTRE

END OF JANUARY-APRIL SEMESTER EXAMS
SCS-203, SYSTEM ANALYSIS AND DESIGN

Instructions: Answer question one and any other two. Question one is compulsory

Question 30 marks

A framework of information systems depicts the various kinds of systems with respect to the nature of support provided within the organization levels.

a) List the six (6) kinds of systems   (6marks)

b) List the characteristics of Decision Support Systems (DSS) and Management Information Systems that make them suitable for managers   (4marks)

c) The structure of an organization can influence the flow of information through it. Explain two effects that the structure of an organization could have on the flow of information.   (4 marks)

d) Information produced by ICT systems may be required both within (internal)and outside (external) organizations such as schools and supermarkets.
   Required:
i) Describe two examples of internal information requirements, stating for each:
   (a) who needs the information;
   (b) what information they require;
   (c) What it is to be used for.   (6 marks)

e) The development of a successful information system depends, in part, on good teamwork.
      Discuss   (6marks)

(f) Formal development methods have distinct phases. For the following development phases: state one activity that is undertaken in the phases below:

   (i)   Analysis   (2 marks)

   (ii) Design   (2 marks)

Q2). The owner of an independent driving school, which employs 6 instructors, decides to get a local software house to write a bespoke package to manage client information, including the booking of lessons, the tracking of progress, and the recording of payments.

(a) Identify two different potential users of this system. (2marks)

(b) With the aid of examples, describe the different levels of information that each of these two users might require. (4marks)

(c) Describe the following concepts and their importance in development of informationsystems
   i.   Environment
  ii.   Feedback (controlled systems)
 iii.   Open loop system (uncontrolled systems)
  iv.   Effectiveness   8marks)

(d) Discuss the basic types of information that should be included in the documentation of a data processing application (4marks)

(e)Write short notes on the following (2marks)
        Systems design:
        System Testing:

(Total 20 marks)

Q3) what is information system analysis and design methodology (5 marks)

Q3b) Describe the types of information systems in organizations today (5marks)

3c) Define prototyping model and discuss the advantages and disadvantages of the model. (10 marks)

Q4: Describe the roles of the following ICT professionals   (6 marks)
    (a) Systems Analyst
    (b) systems designer
    (c) Systems security manager
    (d) Project Manager
    (e) Database administrator
    f) What are the characteristics of a system?   **2 marks**
    g) Briefly describe any three the fact finding techniques of data collection   **6 marks**

    i)State and briefly describe the six skillsets required of a System Analyst.**6 marks**

Question 5 20 marks

There are a number of activities that take place after a system is completed. The two (2) main activities are post-implementation review and maintenance.

(a) Discuss the above terms outlining their difference   (4marks)

(b) Who is a systems analyst?   (2marks)

(c) Elaborate on the technical and interpersonal skills required of Systems Analyst. (2marks)

(d) Draw the chart showing the waterfall model. Give two advantages and two disadvantages of the model.   **8 marks**

e) List the four steps in conducting a cost-benefit analysis.   **4 marks**

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