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UNIVERSITY REGULAR EXAMINATIONS

2013 /2014 ACADEMIC YEAR

3RD YEAR 2ND SEMESTER EXAMINATIONS

(MAIN EXAMINATION)

BACHELOR OF SCIENCE

IN INFORMATION TECHNOLOGY

COURSE CODE: CSC 222

COURSE TITLE: SYSTEM ANALYSIS AND DESIGN

DATE: 17TH APRIL,2014 **TIME:** 9:00A.M. – 12 NOON

INSTRUCTIONS TO CANDIDATES:

Attempt question **ONE (1)** and **ANY TWO (2)** other questions from section B.

MAIN PAPER

QUESTION ONE **30MKS**

(a) Differentiate between system analysis and system design (4mks)

(b) Discuss briefly any five requirement elicitation techniques (10mks)

(c) Define the following terms as used during system analysis project (6mks)

i) Information Technology

ii) Information system.

iii) Software

(d) Draw a DFD for the following scenario;- (10mks)

- Employees at a manufacturing company are paid each week.
- Their working hours are recorded manually on time sheets. The hours consist of standard hours and possibly overtime hours.
- The time sheets are collected each week and the details are input into the system.
- The data is verified and validated by the accounts department then valid data is written to the payroll transactions file. Invalid entries are output as error reports.
- The transaction file is used to update the employee master file, and cheques and pay slips are printed.
- A pay slip summary is also printed for the accounts department.

SECTION B ANSWER ANY TWO QUESTIONS

QUESTION TWO **(20MARKS)**

(a) A company could obtain software either by buying a ready-made package or commissioning its own;-

Discuss the advantages and disadvantages of buying a package? (6mks)

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(b) A new package can be installed and probably customized. Define these two terms.

(4mks)

(c) Discuss briefly any five types of information systems that can be implemented in an organization. (10mks)

QUESTION THREE (20MARKS)

(a) New systems developed in-house frequently require a complex suite of programs. During the development of the system, implementation will take place at different levels and at different times. Discuss four types of implementation that can be done (8mks)

(b) Define the following terms;- (4mks)

i) Legacy systems

ii) BPR (Business Process re-engineering)

iii) CASE tools

iv) System request

(c) State and briefly explain any four design tools. (4mks)

(d) Discuss two types of feasibility studies that are done during the planning phase of a systems development life cycle. (4mks)

QUESTION FOUR (20 MARKS)

(a) A system analyst has completed investigations and analysis for a new system, he draws up a system requirement specification;-

Identify and explain the elements of the requirement specification document. (10mks).

(b) Discuss any three (3) types of systems maintenance (6mks)

(c) Outline the four skills required by a project manager. (4mks)

QUESTION FIVE (20 MARKS)

(a) A fast food organization has expanded the number of its outlets around the city. At the moment the outlets use conventional cash tills. The organization would like to implement a Point-of-Sale (POS) system in all its outlets with linkages to a

centralized computer. Assume you are the organizations system analyst and you have been asked to assist in the conversion process from the existing system to a new one. Describe any changeover options that are available and recommend the most suitable one for the system. (12mks)

(b) Explain two methods used to deal with user resistance (3mks)

(c) Outline the steps of the waterfall model (5mks)