



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

DEPARTMENT OF DIGITAL TECHNOLOGY

EXAMINATION PAPER

COURSE CODE : MIS 211
COURSE TITLE : Systems Analysis and Design
SPECIAL REQUIREMENTS : None
DURATION : 3 Hours
LEVEL : 2.1
DATE : 13 OCT 2023

INSTRUCTIONS TO CANDIDATES:

1. This paper consists of 2 sections
2. Answer **ALL** Questions in SECTION A and **ANY THREE** Questions from SECTION B in booklet provided.
3. Start each Question on a new page

There are 3 printed pages for this question paper

SECTION A:

Answer **ALL** questions from this section. The section carries **40 marks**

QUESTION 1

Describe the following SDLC stages

- a) System analysis
- b) System design
- c) Systems coding
- d) System implementation
- e) Maintenance and review

[5 x 4 marks]

QUESTION 2

- a) "Testing can only show the presence of errors, not their absence", explain the validity of this statement [5 marks]
- b) Typically, a commercial software system has to go through the following **THREE** stages of testing:
 - i) Development testing
 - ii) Release testing
 - iii) User Testing

Describe these stages stating any 2 types of testing (include a brief description on each) that falls under each stage [3 x 5 marks]

SECTION B:

Choose any **THREE** questions from this section. Each question carries **20 marks**.

QUESTION 3

- a) "Prototype is a paper-based mock-up the models a real system", explain the two types of prototype [10 marks]
- b) Describe the prototype as a software development methodology [10 marks]

QUESTION 4

Our discount policy depends on whether a customer is a new or repeat customer, but we also give a seniors' discount:

- New customers get a 20% discount on their second order, and repeat customers get free shipping.
- Customers 65 and over also get a 10% discount their current purchase.

Construct a decision table and a decision tree for the above scenario **[2 x 10 marks]**

QUESTION 5

A house cleaning company has been set up to provide cleaners in the local area. They require a system which deals with customers, jobs, staff, allocation of jobs, purchase and provision of cleaning material, paying both staff and suppliers.

- What is the purpose of system analysis and what skills are required by a system analyst? **[4 marks]**
- Identify the processes, data stores and external entities in the above case study **[7 marks]**
- Give THREE reasons why DFDs should be used and give an example from the above case study **[9 marks]**

QUESTION 6

"Today's system developers spent most of their effort on interface design"

Explain the following terms in relation to system design

- Interface design
- Gold plating
- Logical design
- Physical design
- Prototyping

[5 x 4 marks]

***** Wishing you all the best *****

0/6 AM