



## ZIMBABWE EZEKIEL GUTI UNIVERSITY

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FACULTY OF, SCIENCE, TECHNOLOGY, AGRIC AND FOOD SYSTEMS  
DEVELOPMENT

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DEPARTMENT OF DIGITAL TECHNOLOGY AND INFORMATION SYSTEMS

### EXAMINATION PAPER

**COURSE CODE** : DIS 121

**COURSE TITLE** : Systems Analysis and Design

**SPECIAL REQUIREMENTS** : None

**DURATION** : 3 Hours

**LEVEL** : 1.2

**DATE** : 14 JUN 2024

#### INSTRUCTIONS TO CANDIDATES:

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

**SECTION A:**

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

**QUESTION 1**

- a) Outline any 5 the reasons that might lead to the change of a system within an organization.

[5]

- b) Describe the following SDLC stages

- System analysis
- System design
- Systems coding
- System implementation
- Maintenance and review

[5 x

4 marks]

**QUESTION 2**

- a) Give any 4 advantages and 4 disadvantages of using Questionnaires as a fact finding method

[8]

- b) Who is a systems analyst and what role does he play during systems analysis and design?

[ 7]

**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 model as a software development methodology **[10 marks]**

#### QUESTION 4

- a) Explain in detail the **Object Oriented System Development Life Cycle** including detailed activities carried out in the all the five (5) stages [15 marks]
- b) List the three macro processes of **Object Oriented Systems Development** [3 marks]
- c) Give any (2) two advantages of using the prototype model [2 marks]

#### QUESTION 5

- a) What is the purpose of system analysis and what qualities are required by a system analyst? [8 marks]
- b) Draw and explain any 5 symbols used in data flow diagrams [10 marks]
- c) Differentiate between **User Documentation** and **Technical documentation** [2 marks]

#### QUESTION 6

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

Explain the following terms in relation to system design

- a) Interface design
- b) Gold plating
- c) Logical design
- d) Physical design
- e) Prototyping [5 x 4 marks]

End of Paper

10/0 (pm)