



“Investing in Africa’s future”

COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE (CBPLG)

Systems Analysis Design and Implementation-CIS 401

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2019

LECTURER: Mr. Timothy Makambwa

DURATION: 3 HOURS

INSTRUCTIONS

Answer **ALL** the questions in **Section A** and any **Three** questions from **Section B** and each question has **20** marks. Total possible mark is **100**.

Start **each** question on a new page on your answer sheet.

The marks allocated to **each** question are shown at the end of the section.

Section A (40 Marks)

Answer all questions in this Section

Part – I (20 Marks)

Choose the correct response

Question 1 is an important factor of management information system.

- A) System B) Data C) Process D) All

ANS: A) System

Question 2 level supply information to strategic tier for the use of top management.

- A) Operational B) Environmental C) Competitive D) Tactical

ANS: D) Tactical

Question 3 In a DFD external entities are represented by a

- A) Rectangle B) Ellipse C) Diamond shaped box D) Circle

ANS: A) Rectangle

Question 4. In a DFD external entities are represented by a

- A) Rectangle B) Ellipse C) Diamond shaped box D) Circle

ANS: A) Rectangle

Question 5 can be defined as data that has been processed into a form that is meaningful to the recipient and is of real or perceive value in current or prospective decisions.

- A) System B) Information C) Technology D) Service

ANS: B) Information

Question 6. Use the new system as the same time as the old system to compare the results. This is known as

- A) Procedure Writing B) Simultaneous processing C) Parallel Operation D) File Conversion

ANS: C) Parallel Operation

Question 7. After the design phase the document prepared is known as.....

- A) system specification B) performance specification C) design specification D) None of these

ANS: C) design specification

Question 8. A data flow can

- A) Only emanate from an external entity B) Only terminate in an external entity
C) May emanate and terminate in an external entity D) May either emanate or terminate in an external entity but not both

ANS: C) May emanate and terminate in an external entity

Question 9 can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.

- A) System Analysis B) System Data C) System Procedure D) System Record

ANS: A) System Analysis

Question 10. SDLC stands for

- A) System Development Life Cycle B) Structure Design Life Cycle
C) System Design Life Cycle D) Structure development Life Cycle

ANS: A) System Development Life Cycle

Part – II (20 Marks)

Question 11

- a) List the six steps taken in the analyst's general approach to problem solving. [6 marks]

1. Research and understand the problem

2. Verify that the benefits of solving the problem outweigh the costs
3. Define the requirements for solving the problem
4. Develop a set of possible solutions (alternatives)
5. Decide which solution is best and make a recommendation
6. Define the details of the chosen solution
7. Implement the solution
8. Monitor to make sure that you obtain the desired results

b) What are the required skills of the systems analyst?

[3 marks]

Systems analysts need a great variety of special skills. They need to understand how to build information systems (technical skills) and must understand the business they are working for (business skills). They also need to understand people and the way they work (people skills).

c) List the six major activities that must be done during the design phase.

[6 marks]

1. Design and integrate the network
2. Design the application architecture
3. Design the user interfaces
4. Design the system interfaces
5. Design and integrate the database
6. Prototype for design details
7. Design and integrate the system controls

d) The project planning phase consists of five activities that are required to get the project organized. What are these activities?

[5 marks]

Define the problem
Produce the project schedule
Confirm project feasibility
Staff the project
Launch the project

Section B (60 Marks)

Answer any three questions from this Section

Answer all questions in this section

Question 12 (20 Marks)

- a) Define the term 'system'. [4 Marks]
- b) List the major phases of the system development life cycle. [6 Marks]
- c) What do you understand by structural system analysis? [4 Marks]
- d) How is system analysis related to system design process? [6 Marks]

Question 13 (20 Marks)

When organisations are developing new systems, they face several choices:

- Internal development.
- Outsourcing.
- Acquisition – purchase off the shelf.
- Use of application service providers (ASP).

Each of them has its own advantages and disadvantages. Identify these.

[20 Marks]

Question 14 (20 Marks)

It is often said that business information systems play a vital part in the success or failure of a business enterprise.

- a) Computer-based information systems can be categorized into operational information systems and management information systems. Discuss these two categories giving business examples for each one. [10 Marks]
- b) Managers in businesses are often classified into one of three levels, operational, middle or senior (executive) level. Discuss how computer-based information systems can support managers at these different levels of the business. [10 Marks]

Question 15 (20 Marks)

An international company with many offices worldwide is about to move to a new release of a business critical system which will be installed on servers located at each office. The new release has taken many months to develop and will provide an improved understanding of how the business is performing; this new information should help the company, which is currently operating at a loss.

The company's management is considering the following two methods of changeover:

- Direct changeover
- Phased changeover

a) Write a report to the management which compares the two changeover methods being considered. [10 Marks]

b) Identify the changeover method you would recommend and provide the reasons why you would select that method. [10 Marks]

Question 15 (20 Marks)

- a) What are the main components of a data flow diagram? Illustrate your answer by means of symbols. [6 Marks]
- b) Describe the purpose of the entity relationship diagram (ERD) in the structured development strategy. [4 Marks]
- c) Explain how the following terms contribute to system development:
 - i) User Acceptance Testing
 - ii) System Maintenance [2 x 5 Marks]