



*“Investing in Africa’s future”*

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

**Systems, Analysis, Design and Implementation-CIS 401**

**END OF SECOND SEMESTER EXAMINATIONS**

**MAY/JUNE 2020**

**LECTURER: Mr. Timothy Makambwa**

**DURATION: 3 HOURS**

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### ***INSTRUCTIONS***

Answer **one** question from this Examination

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

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

## Section A (40 Marks)

Answer all questions in this Section

**Question. 1** ..... is an important factor of management information system.

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

**Question .2.** The approach used in top-down analysis and design is

- A. to identify the top level functions by combining many smaller components into a single entity
- B. to prepare flow charts after programming has been completed
- C. to identify a top level function and then create a hierarchy of lower-level modules and components.**
- D. All of the above

**Question.3**..... level supply information to strategic tier for the use of top management.

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

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

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

**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

**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

**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

**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

**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

**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

**Question 11.** Which of the following is / are the Characteristics of information?

- A) Accuracy and Relevance
- B) Form of information and Timeliness
- C) Completeness and Purpose
- D) All A, B & C

**Question 12.** The data Flow Diagram is the basic component of ..... system

- A) Conceptual
- B) Logical
- C) Physical
- D) None of the above

**Question 13.** Data cannot flow between two data stores because

- A) It is not allowed in DFD
- B) A data store is a passive repository of data
- C) Data can get corrupted
- D) They will get merged

**Question 14.** The characteristics of well-designed system are

- a) Practical b) Effective c) Secure d) Reliable e) Flexible f) Economical
- A) a, b, c and d
- B) a, c, d and e
- C) a, b, c, d and e
- D) a, b, c, d, e and f

**Question 15.** ..... gives defining the flow of the data through and organization or a company or series of tasks that may or may not represent computerized processing.

- A) System process
- B) System flowchart
- C) System design
- D) Structured System

**Question 16.** In the Analysis phase, the development of the \_\_\_\_\_ occurs, which is a clear statement of the goals and objectives of the project.

- A. documentation
- B. flowchart
- C. program specification
- D. design

**Question 17.** Actual programming of software code is done during the \_\_\_\_\_ step in the SDLC.

- A. Maintenance and Evaluation
- B. Design
- C. Analysis
- D. Development and Documentation

**Question 18.** Enhancements, upgrades, and bug fixes are done during the \_\_\_\_\_ step in the SDLC.

- A. Maintenance and Evaluation
- B. Problem/Opportunity Identification
- C. Design
- D. Development and Documentation

**Question 19.** HIPO stand for

- A) Hierarchy input process output
- B) Hierarchy input plus output
- C) Hierarchy plus input process output
- D) Hierarchy input output Process

**Question 20.** Advantages of system flowcharts .....

- A) Effective communication
- B) Effective analysis
- C) Queasier group or relationships
- D) All A, B, C

## Section B (60 Marks)

Answer any three questions from this Section

### Question 21 (20 Marks)

- a) List the six steps taken in the analyst's general approach to problem solving. [6 marks]
- b) What are the required skills of the systems analyst? [3 marks]
- c) List the six major activities that must be done during the design phase. [6 marks]
- d) The project planning phase consists of five activities that are required to get the project organized. What are these activities? [5 marks]

### Question 22 (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 23 (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 24 (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]

**END OF PAPER**