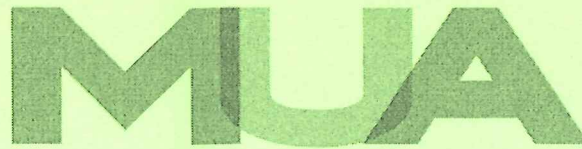


The
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CERTIFICATE UNIVERSITY EXAMINATIONS
SCHOOL OF MANAGEMENT AND LEADERSHIP
DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY

CBT 104: BASIC SYSTEM ANALYSIS AND DESIGN

DATE: 6TH APRIL 2023

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **FOUR** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **10 MARKS** each.
7. Write all your answers in the Examination answer booklet provided.

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

CHEBARBAR HOLIDAY HOMES

A Chebarbar Holiday Homes owns a fast food café. The café has three cooks, one sale/clerk, one accountant and one delivery person, the Owner wants to build an information system to help him manage Fast food café. To minimize his cost he prefers to receive cash for all sales to avoid credit card processing fees, nevertheless, he has made arrangement with his bank to process credit cards.

Delivery orders are accepted only when the credit card has been validated .for sales area, the customers can places their orders on different dishes either in house, on the internet or calls. Customers can ask for delivery or pick up after the order was successful. The Clerk/system records the detail of each customer and calculates the total payments. Customers can pay cash or credit card in the store. For online or call purchase, customer must pay their order by credit cards, However the internet users needs to have their credit cards validated. The Management has heard horror stories about people who made in huge orders and never picked them up. The call or internet orders will be sending to the kitchen staff once the credit card have been validated and paid.

The delivery person should ensure the correct address and phone number for on time delivery.one routine may include multiple deliveries for maximum efficiency. In food preparation area kitchen staff will process and package the orders. They should ensure that food is ready on time for various types of orders delivery, pickup and in house. The product management is another important part of the daily business as well, e.g price the food prepare menus and select extra dishes for specials of the day. The purchase of raw materials inventory and enforce quality control of the kitchen work are also

important to the product management, But the owner is not quite sure where the bulk of the business will come from: in house, take way or deliveries?

To decide where the expansion should take place he needs a simple accounting system that calculates revenue in-house customers, takeaway and deliveries separately. He likes to develop an information system that can manage his business to keep track of the sales and customer relations to help his decision making.

You are required to develop a management information system for Chebarbar Holiday Homes based on the above requirements

Required:

- a) Discuss FIVE (5) system development Life cycle stages as used in achieving finished software products [10MARKS]
- b) Evaluate THREE (3) levels of information in Chebarbar Holiday Homes [10MARKS]
- c) Analyze THREE (3) information gathering techniques that software developers will be likely to use in the process [9MARKS]
- d) Explain System Implementation [1MARK]

QUESTION TWO

- a) Define analysis and show it is different from design [1 MARK]
- b) Describe the role and responsibilities of the following: [3 MARKS]
 - i. Business analysts
 - ii. Stakeholders
- c) Define Quality assurance and state the Objectives of Quality Assurance [6 MARKS]

QUESTION THREE

- a) Discuss briefly write short notes on the similarities and differences between the following: **[4 MARKS]**
- i. Open or Closed Systems
 - ii. Adaptive and Non Adaptive System
- b) Apart from interviews, discuss two other requirements gathering techniques, giving their advantages and disadvantages **[6 MARKS]**

QUESTION FOUR

- a) Discuss briefly the purpose of Sequence Diagrams **[2 MARKS]**
- b) State the SDLC processes **[3 MARKS]**
- c) Explain the difference between a waterfall and an iterative/incremental System Development Life Cycle (SDLC) **[5 MARKS]**

QUESTION FIVE

- a) Explain the difference between a functional and non-functional requirement. **[4 MARKS]**
- b) Discuss the Elements of a system using a well labeled diagram **[6MARKS]**

QUESTION SIX

Discuss FIVE (5) system testing stages used in achieving finished software products **[10 MARKS]**