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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2017/2018 ACADEMIC YEAR
DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY**

DBT 017 - SYSTEM ANALYSIS AND DESIGN

Date:
Time:

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

1. Define a system (2 Marks)
2. List three main component of a system (3 Marks)
3. Name four main deliverables of the preliminary study of a system development life cycle. (4 Marks)
4. Name five types of feasibility studies that one need to carry before developing a new system. (5 Marks)
5. Give four advantages of prototyping (4 Marks)
6. Name the four methods of obtaining data during the analysis stage. (4 Marks)
7. Define system requirement and differentiate the two main types of system requirement (3 Marks)
8. Discuss the five main results of wrong system requirements. (5 Marks)

QUESTION TWO (20 MARKS)

1. Identify the symbols used in data flow diagrams and explain how each is used. (10 Marks)
2. Briefly describe the activities carried out during the design phase of system development life cycle. (10 Marks)

QUESTION THREE (20 MARKS)

1. Draw a data flow diagram for an online registration system. (10 Marks)
2. Discuss at least five major tools and techniques that system analyst use at system design stage. (10 Marks)

QUESTION FOUR (20 MARKS)

Exotic Treat Company

The 'Exotic Treat' company is a small, independent business that sells exotic sweets and cakes to the public. The proprietor is very keen on baking and specializes in making homemade sweets and cakes for sale in the shop. As well as making much of the confectionery sold in the shop, the proprietor also buys sweets and some cakes from suppliers to increase the range of products for sale. At the end of each day the proprietor reviews the sales of the homemade items. He then decides how many sweets and cakes to make for the next day. This is also partly to replenish any stock that needs to be bought from suppliers, and also to keep track of the sales. Once a week the proprietor checks the stock to dispose of anything that is past its 'use by' date. He also checks to see if any raw ingredients for the homemade products, or any pre-made sweets and cakes need to be ordered from the suppliers. The proprietor orders supplies on a Cash on Delivery basis, so all deliveries are paid for immediately.

Produce a top level data flow diagram of the exotic treat company

(20 Marks)

QUESTION FIVE (20 MARKS)

1. Describe the roles and responsibilities of the following:

i. System analysts

ii. Stakeholders

(10 Marks)

2. Describe the phases of the system Development Life Cycle explaining the involvement of the two in part 5(a) above.

(10 Marks)