(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR TWO SEMESTER ONE EXAMINATIONS

FOR THE DEGREE OF
BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE : CSC 215

COURSE TITLE : SYSTEM ANALYSIS AND DESIGN

DATE: 25/07/2022 TIME: 11.00 A.M – 01.00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

a) Define the following terms as used in system **[4 Marks]**

i. System analysis and design

ii. Information system

iii. Decision tree

iv. Feasibility study

b) Describe three qualities of a good system **[6 Marks]**

c) Terms of reference is a document prepared by steering committee to act as a reference document throughout system development stages. Describe two benefits of terms of reference **[4 Marks]**

d) Describe two components of Data Flow Diagrams **[4 Marks]**

e) Describe two objectives or aims of system analysis **[4 Marks]**

f) Describe four components of a system **[8 Marks]**

QUESTION TWO [20 MARKS]

a) Outline three advantages of using questionnaires as a fact-finding method in system analysis **[3 Marks]**

b) Briefly describe the importance of system documentation **[4 Marks]**

c) Give four reasons why project fail **[3 Marks]**

d) A program evaluation and review technique (**PERT**) chart is a graphical network model that depicts a project task and the relationships between those tasks. Identify any three steps involved in PERT planning process **[3 Marks]**

e) There are various documents prepared during the system development life cycle. Describe **[7 Marks]**

QUESTION THREE [20 MARKS]

a) Describe four types of information system [8 Marks]

b) A product is sold if it passes a mechanical test, an electrical test and has the correct dimensions. If it fails the mechanical test or electrical test but not both it is sent back to the workshop for repair. In all other cases the product is rejected

i. Draw a decision tree to represent the above [6 Marks]

ii. Draw a decision table to represent the above scenario [6 Marks]

QUESTION FOUR [20 MARKS]

a) Differentiate between logical design and physical design [4 Marks]

b) i. Define structured walkthrough [2 Marks]

ii. Describe three types of structured walkthrough [6 Marks]

c) Describe four file conversion methods [8 Marks]

QUESTION FIVE [20 MARKS]

a) Discuss the stages in the following systems development methodologies

i. System development life cycle [8 Marks]

ii. Prototyping method [6 Marks]

b) Explain three reasons why users resist change in organization [6 Marks]