PAN AFRICA CHRISTIAN UNIVERSITY

Where Leaders are Made

UNIVERSITY EXAMINATIONS: 2025/2026
EXAMINATION FOR THE DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY
BIT201|BSIT201|DICT0123: SYSTEMS ANALYSIS AND DESIGN
END OF SEMESTER EXAMINATION
DATE: MONDAY 27TH JULY, 2026 **TIME: 3 HOURS**

INSTRUCTIONS: Question One is Compulsory, Choose Three Other Questions

SECTION A (COMPULSORY)

QUESTION ONE (15 Marks) Compulsory

a) Systems analysts use a variety of techniques to search for requirements. Describe two of these techniques and explain strengths and weaknesses they may have. **[4 Marks]**

b) Discuss the purpose of a feasibility report, and when in the system development life cycle it should be produced. **[5 Marks]**

c) During the design and development of a computerized information processing system, various types of documentation are produced. Describe any three types these documentations. **[6 Marks]**

SECTION B (ANSWER ANY THREE (3) QUESTIONS IN THIS SECTION)

QUESTION TWO (15 marks)

a) Differentiate between the following two types of system designs: physical and logical system design. **[2 Marks]**

b) Describe four guidelines for selecting appropriate tools used in structured analysis. **[4 Marks]**

c) A group meeting sometimes is suggested as a useful compromise between interviews and questionnaires. In such a group meeting, one system analyst meets with and asks questions from a number of users at one time. Discuss three advantages and three disadvantages of such a group meeting. **[9 Marks]**

QUESTION THREE (15 marks)

a) Differentiate between verification and validation in software evaluation. Give an example of a technique that can be used for each. **[3 Marks]**

b) It is possible for systems analysis involved in the introduction of new or upgraded computer systems to encounter resentment and opposition from existing employees. This may take many forms from outright opposition to active hostility toward the new system during fact finding interviews.

(i) Examine three reasons for employees to react in this manner. **[6 Marks]**

(ii) Discuss three measures that can be taken by the systems analyst to alleviate this resistance. **[6 Marks]**

QUESTION FOUR (15 marks)

a) Examine three reasons why an organization would undertake a system upgrade project. **[6 Marks]**

b) Parity Techno Systems currently uses the traditional SDLC as the standard for developing new systems. The organization has employed you as a senior systems analyst. You have been asked by your manager to examine a number of structured systems methodologies with a view to recommending the most appropriate one to be adopted by the company. Describe three features of the structured approach to systems analysis and design.
[9 Marks]

QUESTION FIVE (15 marks)

a) Explain four different ways of involving users in a development project. Comment on any problems that might arise with each of these. **[6 Marks]**

b) Pan Africa Christian University intends to put in place a new Library Information System because of increased students' population. The University has consulted you for expert views and advises. Your expert advice to them is to outsource the Information System. Discuss the reasons for outsourcing and potential risks that might be encountered by the University while outsourcing. **[9 Marks]**

QUESTION SIX (15 marks)

a) Distinguish between waterfall and prototyping models. **[2 Marks]**

b) Examine why user education is an important aspect of system development. **[3 Marks]**

c) Every IT project involves risks that systems analysts and project managers must address. Describe FIVE steps in Risk Management. **[10 Marks]**

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