SCHOOL OF SCIENCE AND TECHNOLOGY
October, 2013 Examination

Course Code: CIT721

Course Title: Information Systems Design and programming

Instruction: Attempt any five (5) questions   Time Allowed: 3hrs

Question 1
    a. Briefly discuss the definition and functions of the following roles:

          i. Business analyst (4 marks)

          ii. Application analyst (3 marks)

          iii. Computer scientists (3 marks).

    b. In order of execution, list (without explanation) the 8 phases of the SDLC.   (4 marks)

Question 2
  a)
      i) Enumerate any six characteristics of a good systems analyst?   (6 marks)

      ii) Write brief notes on any four(4)   (1 mark each)

  b) List four (4) primary objectives of Structured Techniques   (4 marks)

Question 3
    a. Briefly explain the 3 levels of organizational information.   (9 marks)

    b. Define the following terms:

          i. Transaction Processing System   (1 mark)

          ii. Office Automation System   (1 mark)

          iii. Expert System   (1 mark)

    c. State 4 primary objectives of structured techniques in information system development
          (2 marks).

Question 4
  a)
      i) Enumerate the Transformation Process.   (3 marks)

      ii) Write briefly on the Transformation Process.   (5 marks)

  b) Define the following;

      i) Environment   (2 marks)

ii)   Boundaries   (2 marks)

iii)   Sub-System.   (2
marks)

Question 5

a) Discuss briefly (listing examples where possible) the following database models:
    i)   Relational (4 marks)
    ii)   Object-oriented (4 marks)
b)
    i)   Give 3 examples of questions that should be answered when analyzing a system.   (1.5 marks)
    ii)   Briefly explain the 3 steps of the systems approach to system analysis.   (4.5 marks)

Question 6

a. Complete the following table: (8 marks)

Step	People involved	Brief descriptions
Problem definition		
Analysis and design		
Testing and debugging		
Implementation		

b. List and explain 4 benefits of RAD. **(**6 marks**)**

Question 7

a. Briefly explain DSS (3 marks).
b. List 5 benefits of an information system to organizational information. (2.5 marks)
c. Explain briefly the key features of the monopolist approach to management of SDLC(3.5 marks).
d. State any 5 stages of data processing system growth (2.5 marks).
e. Define the term "Risk identification" and state 4 categories of risks to information systems projects. (2.5 marks)