



A Constituent College of Kenyatta University

**UNIVERSITY EXAMINATIONS 2011/2012 ACADEMIC YEAR
INSTITUTIONAL BASED PROGRAMME**

**2ND YEAR EXAMINATION FOR THE DIPLOMA IN INFORMATION
COMMUNICATION AND TECHNOLOGY**

COURSE CODE/ TITLE: SCT D214: SOFTWARE ENGINEERING

END OF SEMESTER II

DURATION: 2 HRS

DAY/TIME:TUESDAY3.00 PM-5.00PM DATE: 28.08.2012 ()

Instructions

Answer question one and any other two questions

Section 1: Compulsory Question

Question1 (40 Marks)

- a) Define Software Engineering (2 Mark)
- b) Distinguish between system software and real-time software (4 Marks)
- c) Discuss three Generic Software Engineering Phases (6 Marks)
- d) Explain three Advantages and three Disadvantages of Linear Sequential Model of software engineering (6 Marks)
- e) Computer-based system system elements. (6 Marks)
- f) To construct a system model, the engineers should consider a number of system modeling restraining factors. Discuss three of such factors. (6 Marks)
- g) Discuss Five areas of potential software engineering applications. (10 Marks)

Section 2: Answer any two Questions

Question 2 (15 Marks)

- a) What is RAD (Rapid Application Development)? (1 Marks)
- b) Discuss five RAD model phases (10 Marks)
- c) Highlight Four Advantages of Using Spiral Model. (4 Marks)

Question 3 (15 Marks)

- a) Highlight three Disadvantages of Using Spiral Model (3 Marks)
- b) Explain Five Traceability Tables (10 Marks)
- c) Discuss two software requirements views (2 Marks)

Question4 (15 Marks)

- (a) Discuss the process framework applicable to the majority of software engineering projects. (10 Marks)
- (b) Explain the following software requirements engineering tasks (5 marks)
 - i. Inception
 - ii. Elicitation
 - iii. Elaboration
 - iv. Negotiation
 - v. Requirements