



**THE CO-OPERATIVE UNIVERSITY OF KENYA
SPECIAL / SUPPLEMENTARY EXAMINATION JULY -2023**

**EXAMINATION FOR BACHELORS BACHELOR OF BUSINESS INFORMATION
TECHNOLOGY/ BACHELOR OF INFORMATION TECHNOLOGY AND COMPUTER
SCIENCE**

UNIT CODE: BCSC 3112

UNIT TITLE: SOFTWARE ENGINEERING

DATE: WEDNESDAY 26TH JULY, 2023

TIME: TIME 8:30 AM – 10:30 AM

INSTRUCTIONS:

- Answer question ONE (compulsory) and any other TWO questions

QUESTION ONE

(30MARKS)

- a) Differentiate between software engineering and software re-engineering (4 marks)
- b) Describe five types of non-functional requirements that may be placed on a system. Give examples of each of these types of requirements (10 marks)
- c) Outline any FOUR qualities of a good project manager. (4 marks)
- d) A software development life cycle is a structure imposed on the development of a software product. Discuss the six activities carried out in software development life cycle. (12 marks)

QUESTION TWO (20 MARKS)

- a) Explain in detail the five methods of information gathering in Software Engineering. (10 marks)
- b) List and explain the five major responsibilities of a software engineer (10 marks)

QUESTION THREE (20 MARKS)

- a) Differentiate between white box and black box testing (6 marks)
- b) Explain the following terms;
 - i) Software standards (3 marks)
 - ii) Software (2 marks)
- c) Discuss any THREE approaches used for software debugging (9 marks)

QUESTION FOUR (20 MARKS)

- a) List and explain any THREE types of software maintenance (9 marks)
- b) Explain any FIVE problems associated with software maintenance (5 marks)
- c) Discuss six reasons for software documentation. (6 marks)

QUESTION FIVE (20 MARKS)

- a) If you were in charge of a large team implementing a system, how would you ensure that the product was both reliable and finished on time? (10 marks)
- b) Discuss the FIVE software Quality Assurance activities (10 marks)