



*“Investing in Africa’s future”*  
COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE (CBPLG)

**NCSC 413: SOFTWARE ENGINEERING 2**

**END OF SECOND SEMESTER EXAMINATIONS**

**MAY 2021**

**LECTURER: DR. YOGESH AWASTHI**

**TIME: 7 HOURS**

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***INSTRUCTIONS***

Answer the questions as per the instructions given in the sections

Start **each** question on a new page on your answer sheet.

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The marks allocated to **each** question are shown at the end of the section.

## **Section A (60 Marks)**

### **Q1. Answer any six questions from Section A.**

Each questions carries 10 marks

- a. Differentiate between Integration and Unit testing.
- b. List and briefly explain types of software maintenance techniques.
- c. Define software reliability. What is the difference between hardware and software reliability?
- d. Why maintenance of software is important? Discuss some of the problems that are faced during maintenance of software.
- e. Explain reverse engineering
- f. Distinguish between Verification and Validation.
- g. Difference between Equivalence Partitioning and Boundary value Analysis.
- h. What is Software Configuration Management (SCM)? Explain the functions of SCM Repository with neat diagram.

## **Section B (40 Marks)**

### **Q2. Answer any two questions from Section B.**

Each question carries 20 marks

- a. Some people argue that developers should not be involved in testing their own code but that all testing should be the responsibility of a separate team. Give arguments for and against testing by the developers themselves
- b. A colleague who is a very good programmer produces software with a low number of defects but consistently ignores organizational quality standards. How should her managers react to this behavior?
- c. Imagine a situation where two developers are simultaneously modifying three different software components. What difficulties might arise when they try to merge the changes they have made?

**END OF EXAMINATION**

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