



“Investing in Africa’s future”

COLLEGE OF ENGINEERING AND APPLIED SCIENCES

NSCE302 :SOFTWARE ARCHITECTURE AND DESIGN

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2023

LECTURER: MR T.S MUWANI

DURATION: 3 HOURS

INSTRUCTIONS

Answer **ANY FOUR** Questions
Total possible mark is 100

Start **each** question on a new page in your answer Booklet.

Question One

- a) Examine the migration process for applications? [10 marks]
- b) Using an example, distinguishes a class from an object [15 marks]

Question Two

- a) Demonstrate the procedures for defining architecture. [24 marks]
- b) How can you persuade upper management to invest in architecture? [1 mark]

Question Three

- a) Interpret how do you gather needs from your customer? [10 marks]
- b) Describe what are design patterns. [10 marks]
- c) Define event driven programming? [5 marks]

Question 4

- a) Why would someone want to create an application employing a 3-tier structure? [6 marks]
- b) Explain the term middleware. [5 marks]
- c) Illustrate the Model-View-Controller (MVC) architecture. [14 marks]

Question 5

- a) Express the term '*architecture of the application*'. [6 marks]
- b) Interpret software as used in software architecture and design [10 marks]
- c) Differentiate between the terms **Design Patterns**, **Framework** and **Architecture** [9 marks]

END OF EXAMINATION