

SCHOOL OF ENGINEERING AND TECHNOLOGY

**MOCK FINAL EXAMINATION FOR THE BACHELOR OF SOFTWARE
ENGINEERING (HONS)**

ACADEMIC SESSION : APRIL 2024 SEMESTER
SUBJECT : SWE3033 SOFTWARE PROCESSES
EXAMINATION : MOCK FINAL – JULY 2024
TIME ALLOWED : 1 HOUR + 10 MINUTES READING TIME

INSTRUCTIONS

This question booklet contains **TWO (2)** questions. Answer **ALL** the questions.

All answers must be written in the answer booklets provided using blue or black INK.

IMPORTANT NOTES TO CANDIDATES

Materials Allowed

Standard Items : Pen, Pencil, Eraser or Correction Fluid, Ruler
Special Items : Non Programmable Calculators

It is your responsibility to ensure that you do **NOT** have in your possession any unauthorised notes or any other means that would improperly help you in your work. If you have any unauthorised materials with you, hand it to the invigilator **BEFORE** reading any further.

DO NOT REMOVE THIS QUESTION PAPER FROM THE EXAMINATION HALL

[This paper contains TWO questions printed on THREE pages, including cover page]

Answer ALL questions.

Question 1**(Total: 25 marks)**

- (a) Suggest a software process model to apply for the following software system development project and justify your answer.
- i) You have been assigned to develop a software system for a research and development company working on cutting-edge technologies. The software system will be used to support research projects, experimentation, and prototype development. It requires flexibility, frequent iterations, and a collaborative approach to accommodate evolving technology landscapes. (5 marks)
 - ii) You are part of a software development team tasked with creating a mobile app for a start-up company. The software system will be used as a social networking platform for connecting people with similar interests and facilitating interactions. It requires frequent user feedback, quick iterations, and a focus on user experience. (5 marks)
- (b) Define the iterative and incremental model of software development, discuss its main phases and its limitation. (10 marks)
- (c) Discuss TWO (2) benefits of using iterative and incremental software development approaches. (5 marks)

Question 2

(Total: 25 marks)

- (a) Briefly describe the concept of “process maturity” in your own words. (5 marks)

- (b) Name THREE (3) and describe the potential resources of historical data when applying the traditional software development model or agile development approaches, to estimate the user story development time in a prototype before it is written. (15 marks)

- (c) Provide ONE (1) main challenges that may arise during the integration of role-specific views? Explain how the challenge can be addressed. (5 marks)

~ END OF PAPER ~