



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD SYSTEMS DEVELOPMENT

DEPARTMENT OF DIGITAL TECHNOLOGY

EXAMINATION PAPER

COURSE CODE : BIS122
COURSE TITLE : Software Engineering
SPECIAL REQUIREMENTS : None
DURATION : 3 Hours
LEVEL : 1.2
DATE : 2024 25 SEP 2024

INSTRUCTIONS TO CANDIDATES:

1. Answer all the questions.
2. Each question carries 25 Marks.

Question 1

- a. Describe the software development life cycle (SDLC) and discuss the advantages and disadvantages of the waterfall model and the agile methodology. [15]
- b. The V – model approach of software evaluation is used both in systems development and software engineering. Illustrate how the model is used in each of the above. Support your answer with well labelled diagrams [10]

Question 2

- a. The process of risk management involves **three** main activities or processes. State and briefly describe the three main activities or processes [15]
- b. Give an outline of the CQCOMO estimation model in software development [10]

Question 3

- a. State and briefly describe any four types of conflicts that may arise during the requirements elicitation and analysis process [18]
- b. Discuss briefly benefits of software reuse and problems associated with it [7]

Question 4

- a. Suggest who might be stakeholders in a university student records system. Explain why it is almost inevitable the requirements of different stakeholders will conflict in some ways. [15]
- b. Explain why it is not necessary for a program to be completely free of defects before it is delivered to its customer? To what extent can testing be used to validate that the program is fit for its purpose? [10]