

PAN AFRICA CHRISTIAN UNIVERSITY

DIPLOMA INFORMATION COMMUNICATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: COMPUTING & INFORMATION TECHNOLOGY

COURSE CODE: BIT 304

CAMPUS: ROYSAMBU

COURSE TITLE: SOFTWARE ENGINEERING

EXAM DATE: MONDAY 2:00PM

TIME:

INSTRUCTIONS

- This exam carry a total of SIX Questions of [10 Marks Each]
- Section One (I) is compulsory.
- Answer any 3(Three) Questions from Section Two (II)
- Read all questions carefully before attempting.

Section One Compulsory 10 marks

Question One.

You were involved in Database System deployment to your former High school. Discuss how you will handle the following processes during the deployment schedule.

- a) Unit testing, [2 marks]
- b) Integration testing. [2 marks]
- c) User Acceptance testing [2 marks]
- d) Feasibility Study [2 marks]
- e) System Design [2 marks].

Section Two Attempt any Three Questions.

Question Two.

Many software process models have been proposed to support software development life cycle.

- a) Besides waterfall model, Discuss any other FOUR models applicable in software development. [4 marks]
- b) One of the first models to be proposed is the Waterfall model. Discuss in details how the model works. [6 Marks].

Question Three

After taking part in a series of successful software projects, you have recently been appointed a project manager within a software engineering organization. Your first project in this position will be to build a large web-based application.

- a) State FOUR Reasons why staff would show resistance to a new project implementation. [4 marks]
- b) Discuss THREE ways you will apply to overcome user resistance for this project.

[6 Marks]

Question Four

Show in real life scenario where the following software design strategies are used.

- i. Cohesion [2marks]
- ii. Coupling [2marks]
- iii. Encapsulation [2marks]
- iv. Polymorphism [2marks]
- v. Inheritance. [2Marks]

Question Five.

Discuss FIVE reasons why After a major release of a software system, there often follows a period of corrective maintenance. [10marks]

Question Six.

If approached by a company XYZ to give them specifics on how to determine which database system they need for their automation process.

- i. What are your expectations for data backup and disaster recovery? Do you have specific RPO (Recovery Point Objective) and RTO (Recovery Time Objective) requirements. **[5 marks]**
- ii. Discuss FIVE facts finding approaches xyz could apply in the bid to get a new system in place. **[5 Marks]**

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