

## Intg. M.Sc (CS) Semester-6 Examination

## Software Engineering

Time : 3-00 Hours]

June-2024

[Max. Marks : 70

**Instructions:**

- Write both Sections in the separate answer book.
- Both Sections have equal weightage.
- Draw Diagrams wherever necessary.
- Make Assumptions wherever necessary.

**SECTION – I**

- Q-1 Explain the following terms: 7
- a. What is System Engineering?
  - b. What are the various categories of software?
  - c. Which process model will you choose if you have to develop word-processing software?
  - d. List out the umbrella activities of the software engineering process
  - e. Differentiate functional and non-functional requirements
  - f. What is SRS?
  - g. What do you mean by stakeholders?
- Q-2 Attempt the following : 7
- a. Illustrate generic process framework activities for software Engineering.
  - b. Briefly discuss the advantages and drawbacks of the waterfall model. 7
- OR**
- Q-2 Attempt the following : 7
- a. Express your understanding on the umbrella activities of a software process.
  - b. Explain the spiral model with its merits and demerits
- Q-3 Attempt the following : 7
- a. What do you mean by the terms cohesion and coupling in software engineering? Describe various types of cohesion. 7
  - b. What is the use of an Activity diagram and draw an activity diagram for withdrawing money from a Bank ATM. 7
- OR**
- Q-3 Attempt the following: 7
- a. What is User Interface? Describe the golden rules of User Interface Design. 7
  - b. What is the role of software architecture? Describe different software architecture styles. 7

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## SECTION – II

- Q-4 Explain the following Terms. 7
- What is cohesion and coupling
  - Define Software Testing.
  - Differentiate Review and Testing
  - Distinguish between alpha and beta testing.
  - What is a formal and informal review?
  - What are stub and driver in integration testing?
  - Define Verification & Validation
- Q-5 Attempt the following: 7
- What is Software Quality? Give an overview of various software Quality factors given by McCalls? 7
  - Write the differences between quality assurance and quality control 7
- OR**
- Q-5 Attempt the following: 7
- Write short notes on Unit testing and Integration testing. 7
  - Discuss the elements of software quality assurance. 7
- Q-6 Attempt the following: 7
- What is metric? Describe various Metrics attributes. 7
  - Define Regression testing. When to do regression testing? 7
- OR**
- Q-6 Attempt the following: 7
- Write the differences between black box testing and white box testing 7
  - Explain Function based metrics with example. 7

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