

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, APRIL - 2025**

**PROJECT MANAGEMENT AND SOFTWARE ENGINEERING**

[Maximum marks: 100]

[Time: 3 Hours]

**PART – A**  
**Maximum marks: 10**

**I.** (Answer *all* the questions in one or two sentences. Each question carries **2** marks)

1. Define software engineering.
2. Name two approaches for effort estimation.
3. Define coupling.
4. Write about white box testing.
5. List two methods for software size estimation.

(5 x 2 = 10)

**PART – B**  
**Maximum marks: 30**

**II.** (Answer any *five* of the following questions. Each question carries **6** marks)

1. Write a note on software quality attributes.
2. Illustrate the iterative development model.
3. Describe the desirable characteristics of SRS.
4. Explain the role of software architecture.
5. Write the need of coding guidelines for files and statements with any two examples for each.
6. Describe the terms error, fault and failure.
7. Describe how project quality can be managed.

(5 x 6 = 30)

**PART – C**  
**Maximum marks: 60**

(Answer *one full* question from each unit. Each full question carries **15** marks)

**UNIT – I**

- III.** (a) Describe classical waterfall model. (9)
- (b) State the phases of software development. (6)

**OR**

- IV.** (a) Describe spiral model. (9)  
(b) Describe software process. (6)

**UNIT – II**

- V.** (a) Describe detailed requirements in the structure of SRS document. (8)  
(b) Explain the requirement process. (7)

**OR**

- VI.** (a) Define cohesion and explain different levels of cohesion. (8)  
(b) Explain Data flow diagrams. (7)

**UNIT - III**

- VII.** (a) Describe the method of incrementally developing code using incremental coding process. (8)  
(b) Explain the different levels of testing. (7)

**OR**

- VIII.** (a) Describe Black Box testing. Explain the black box testing methods equivalence partitioning and boundary value analysis. (8)  
(b) Describe code inspection. (7)

**UNIT – IV**

- IX.** (a) Define risk. Explain the risk management process. (8)  
(b) Describe change management. (7)

**OR**

- X.** (a) Describe about configuration management process. (8)  
(b) Explain about CMMI and its different levels. (7)

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