DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2023

PROJECT MANAGEMENT AND SOFTWARE ENGINEERING

[Maximum Marks: **100**]   [Time: **3** Hours]

PART-A
[Maximum Marks: **10**]

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

1. Write the major components of software process.

2. What are the different approaches in design phase?

3. What is software design?

4. Write the difference between error and fault.

5. List the activities of software quality management.   (5 x 2 = 10)

PART-B
[Maximum Marks: **30**]

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

1. Explain the maintenance phase in software development.

2. Explain the characteristics of SRS document.

3. Explain   the role of software architecture.

4. Explain how to manage evolving code using refactoring.

5. Explain the testing process.

6. Explain the main stages of project management life cycle.

7. What is CMMI? Explain its different levels.   (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 Testing phase.   (9)

b. List the advantages and disadvantages of Spiral life cycle model.   (6)

OR

IV.   a. Describe Prototyping life cycle model with diagram.   (9)

      b. What is Requirement analysis? Explain its different activities.   (6)

UNIT – II

V.   a. Describe the different stages for planning a software project.   (9)

      b. Explain the detailed design approach in system design.   (6)

OR

VI.   a. Write about dataflow diagram. With example list the various symbols.   (9)

      b. Explain the different levels of cohesion.   (6)

UNIT- III

VII. a. Describe the different steps in Incremental coding process.   (9)

      b. Explain Unit testing.   (6)

OR

VIII. a. Describe white box testing.   (9)

      b. Explain code inspection process. List the different stages in the code inspection

        process.   (6)

UNIT - IV

IX.   a. Write about software risk. Briefly explain the different process in Risk management. (9)

      b. Explain how the different COCOMO model is used for cost estimation.   (6)

OR

X.   a. Write about software configuration management. Describe how SCM process

        is implemented.   (9)

      b. Explain Resource management.   (6)

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