

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

8	7	1	5
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Exam. Code :

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**PGDCA 2nd Semester
(2053)**

SOFTWARE ENGINEERING

Paper : PGD-2103

Time Allowed : Three Hours]

[Maximum Marks : 60

Note :—Attempt **FIVE** questions in all, by selecting **ONE** question from each Section. Question No. 9 is compulsory.

SECTION—A

1. What does a Software Engineering process accomplish ?
List various applications where its uses lead to successful end product ? 12
2. What are the necessities of Life Cycle Model ? Describe the important elements of spiral model. 12

SECTION—B

3. How can project scheduling be improved ? What are some possible issues that can affect project schedules ? List the basic principles of developing Work Breakdown Structure (WBS). 12

4. (a) How do you calculate COCOMO and what is COCOMO productivity ? 6
- (b) What are the important elements of risk management ? 6

SECTION—C

5. Describe the stages of software design. What are the major causes of software failure ? 12
6. What are the benefits of structured design ? How data dictionaries relate to the Data Flow Diagrams (DFD) ? What are the data dictionary elements ? 12

SECTION—D

7. What are the steps involved in software testing ? What makes a good test plan ? Differentiate between black box and white box testing. 12
8. (a) Why do we need software quality assurance ? List the factors affecting software quality. 6
- (b) How do you maintain software ? Discuss the factors determining software projects maintenance cost. 6

(Compulsory Question)

9. Answer the following :
- (a) Two advantages of Waterfall Model.
- (b) Analyzing a Gantt chart
- (c) PERT formula
- (d) Challenges in software maintenance. $4 \times 3 = 12$