| Enrollment No.: |
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Darshan Institute of Computer Application

BCA | Sem-4 | Winter-2023

Course Code : 2104CS402 **Date** : 18-10-2023 : Software Engineering **Duration** : 150 Minutes **Course Name Total Marks** : 70 Instructions: 1. Attempt all the questions. 2. Figures to the right indicates maximum marks. 3. Make suitable assumptions wherever necessary. (A) Define Software Engineering? List Software Application Domains. 4 Q.1 (B) Explain Software Engineering as a Layered technology. 3 OR Explain Characteristics of Software. (C) Explain Waterfall process model. 7 OR Explain Prototype model in brief with suitable diagram. **Q.2** (A) Determine Requirement Engineering Tasks. 4 (B) Prepare Use-case diagram for College Management System. 3 OR Prepare activity diagram for bool issue in Library Management System. (C) Differentiate Coupling and Cohesion. Explain different types of Coupling and its 7 effects on software modules. OR Analyze of Library Management System and write a Functional and Non-Functional Requirement of Library Management System. **Q.3** (A) Write Responsibility of Software Project Manager. 4 (B) List and Explain Responsibility of Software Project Manager. 3 OR Define Project Scheduling Process. Also Explain Gantt Chart in detail. (C) Explain COCOMO Model. 7

OR

Classify different type of Software Project Estimation Metrics.

| Q.4 | (A) | Write Formal Technical Review | 4 | |
|-----|-----|---|---|--|
| | (B) | Explain various coding standard. | 3 | |
| | | OR | | |
| | | Explain Unit Testing. | | |
| | (C) | Prepare Test cases of Login Page. | 7 | |
| | | OR | | |
| | | Compute cyclomatic complexity and Design flow graph for given code fragment. A = 10 IF B > C THEN A = B ELSE A = C ENDIF Print A Print B Print C | | |
| Q.5 | (A) | Explain Types of Software maintenance | 4 | |
| | (B) | Explain Software Reengineering. | 3 | |
| | | OR | | |
| | | Discuss Advantages and Disadvantages of Software Maintenance | | |
| | (C) | Explain Reverse Engineering in brief. | 7 | |
| | | OR | | |
| | | Explain Version and Change Control Management. | | |