

## QUESTION PAPER

Name of the Examination: WINTER 2022-2023 – CAT-1

Course Code: CSE 1005

Set number: 2

Duration: 90 minutes

Course Title: Software Engineering

Date of Exam: 16-02-2023 (AN)

Total Marks: 50 marks (CD2)

### Instructions:

1. Assume data wherever necessary.
2. Any assumptions made should be clearly stated.

**Q1.** What are the advantages and disadvantages of developing software in which quality is "good enough"? That is, what happens when we emphasize development speed over product quality? (15M)

**Q2.** Umbrella activities occur throughout the software process. Do you think they are applied evenly across the process, or are some concentrated in one or more framework activities? (10M)

**Q3.** Consider a public library system, where common man can enrol for membership by paying a nominal fee and access library facility. The library provides service to its members by allowing them to borrow books for two weeks. If the member wants to retain the book for few more days, it can be renewed by two more weeks. If the member doesn't return the book within stipulated time period, then a fine of Rs. 5/- per day is charged. Describe the above scenario with the help of use-case diagram, and sequence diagram. (15M)

**Q4.** Describe about the design concepts briefly for successful development of software. (10M)

### QP MAPPING

Q. No.	Module Number	CO Mapped	PO Mapped	PEO Mapped	PSO Mapped	Marks
Q1	1	1	1	1	1	15
Q2	1	1	1	2	1	10
Q3	1	1	1	2	2	15
Q4	2	2	4	1	2	10

**QUESTION PAPER**

**Name of the Examination: WINTER 2022-2023 – CAT-1**

**Course Code: CSE1005**

**Course Title: Software Engineering**

**Set number: 3**

**Date of Exam: 16-02-2023 (FN)**

**Duration: 90 minutes**

**Total Marks: 50M**

(DI)

**Instructions:**

1. Assume data wherever necessary.
2. Any assumptions made should be clearly stated.

**Q1.** “Particularly useful when staffing is unavailable for a complete implementation by the business deadline”. The above narration is well suited for a process model for software development.

- i) Identify the model and explain with a neat sketch.
- ii) Give an example, that clearly demonstrates the working principle of the model.

**(15M)**

- Q2.** A) List and explain various process framework activities in SDLC.  
B) Explain the about concept of layered engineering in software development.

**(15M)**

**Q3.** A university plans to manage Library Management System (LMS) through online application.

- i) Identify the actors, functions/requirements for the above case study and sketch use case diagram.
- ii) Illustrate the requirement model using class diagram

**(10M)**

**Q4.** Prepare a SRS Document for the Hospital Management System with the Purpose, Scope, Intended audience, Modules required etc.,

**(10M)**

**QP MAPPING**

Q. No.	Module Number	CO Mapped	PO Mapped	PEO Mapped	PSO Mapped	Marks
Q1	1	1	1	1	1	15
Q2	1	1	1	1	1	15
Q3	2	2	1,2,4,5	1,2	1	10
Q4	2	2	1,2,4,5	1,2	1	10

**QUESTION PAPER**

**Name of the Examination: CAT 1 (WINTER 2022-2023)**

**Course Code: CSE 1005**

**Course Title: Software Engineering**

**Set No: 05**

**Date of Exam: 17/02/2023 (FN)**

**Duration: 90 min**

**Total Marks: 50 (E)**

**Instructions:**

1. Assume data wherever necessary.
2. Any assumptions made should be clearly stated.

Scenario: Human Resource management system project involves new and/or system upgrades of software of send to capture information relating to the hiring termination payment and management of employee. He uses system to plan and analyze all components and performance of metrics driven human resource functions, including recruitment, attendance, compensation, benefits, and education. Human resources management systems should align for maximum operating efficiency with financial accounting operations customer relationship management, security and business lines as organization. Customer is flexible with basic features and working prototype, rest features can be provided in an incremental process and also has a maximum development time.

- Q1. a) List and explain various process framework activities in SDLC. [5M]  
b) Justify which process model you use for the development of a software for the scenario given above. [10M]
- Q2. a) What are fourth generation techniques, give some examples following its advantages and disadvantages. [5M]  
b) Explain the about concept of layered engineering in software development. [5M]
- Q3. a) What do you mean by feasibility study? List and explain various types of feasibility studies. [3M]  
b) For the scenario given above, prepare SRS document. [12M]
- Q4. Explain about various design concepts useful during software design process. [10M]

**QP MAPPING**

Q. No.	Module Number	CO Mapped	PO Mapped	PEO Mapped	PSO Mapped	Marks
Q1	1	1	1	1	1	15
Q2	1	1	1	1	1	10
Q3	2	2	1,2,4,5	1,2	1	15
Q4	2	2	1,2,4,5	1,2	1	10