Roll No: | | | | | | | | | | | |

PRESIDENCY UNIVERSITY

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Bengaluru

Mid Term Examinations - October 2026

Date: 07/10/2026 **Time:** 02:00 PM - 03:30 PM

Course Code: CSE2271 **Course Name:** Software Design and Development

Semester: Fifth Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	46	44

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	List needs for Software Engineering.	2	CO1	BT1
2	Explain the importance of software engineering ethics.	2	CO1	BT2
3	List any four applications of Iterative Waterfall Model.	2	CO1	BT1
4	Compare Functional and non- Functional requirements.	2	CO2	BT2
5	Define primary and secondary actors in a Use Case Diagram.	2	CO2	BT1

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	Illustrate the workflow of the Classical Waterfall Model by explaining each phase and discussing its strengths and weaknesses.	10	CO1	BT2
7	Explain the workflow of the Iterative Waterfall Model by describing its phases and highlighting its benefits and limitations.	10	CO1	BT2

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Explain the fundamental ideas behind David Hooker’s seven principles and describe their contribution to effective software development.	10	CO1	BT2
9	Illustrate the different phases of SDLC with a brief explanation of their roles in software development.	10	CO1	BT2

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	Develop an SRS document for an ATM System that supports cash withdrawal, balance enquiry, fund transfer, and PIN change functionalities.	10	CO2	BT3
11	Apply the different layers of CASE Environment Architecture—UI Layer, Tools Layer, Object Management Layer, and Shared Repository Layer—to a given software development scenario, and demonstrate how they work together to support the development process. Also, state any four advantages and four disadvantages of using CASE tools.	10	CO2	BT3

PART E: Answer Any 1 Following Questions. 10 M

PTO (Please Turn Over)

Q.N.	Questions	M	CO	BT
12	Construct UML Activity diagram for railway reservation system based on the given below scenario. A passenger wants to book a train ticket through an online railway reservation system. The passenger logs into the system and searches for trains by entering the source, destination, and travel date. The system displays the available trains and seat availability. The passenger selects a train and enters passenger details such as name, age, and gender. The system calculates the fare and redirects the passenger to the payment gateway. If the payment is successful, the system confirms the booking, generates a PNR number, and sends the e-ticket to the passenger via email/SMS. If the payment fails, the system displays an error message and allows the passenger to retry the payment or cancel the booking.	10	CO2	BT3
13	A bank is developing an Online Banking System that allows customers to register, log in, check account balance, transfer funds, pay utility bills, download account statements, and update their profiles. The bank manager can approve high-value transactions and generate reports. Develop a Use Case Diagram for the Online Banking System by identifying the actors, use cases, and their relationships (include/extend/generalization where applicable).	10	CO2	BT3