



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
FIRST SESSIONAL

SUBJECT: (CE-421) SOFTWARE ENGINEERING PRINCIPLES AND PRACTICES

Examination : B.Tech Semester - IV
Date : 05/01/2024
Time : 1:00 p.m. to 02:15 p.m.

Seat No. : 82
Day : Friday
Max. Marks : 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
2. The symbols used to carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1	Do as directed.	[12]
CO1	U (a) Differentiate: application software vs. product-line software.	[2]
CO1	R (b) Mention two major differences between V-model and waterfall model.	[2]
CO3	A (c) What is the goal of class and state models in UML?	[2]
CO2	U (d) Differentiate SRS Document vs Design documents.	[2]
CO2	N (e) Define functional, non-functional & goal of implementation requirements.	[2]
CO2	A (f) Write down name of any two functional and any two non-functional requirements for an ATM machine in banking system.	[2]

Q.2	Attempt <i>Any TWO</i> from the following questions.	[12]
CO1	U (a) Explain and compare iterative process flow with evolutionary process flow using appropriate diagrams.	[6]
CO1	R (b) What is component based development? Describe the process and identify potential benefits of this approach.	[6]
CO1	A (c) Why prototyping model is classified as evolutionary process model? Explain the concept and use of prototyping model. What are the issues?	[6]

Q.3	Attempt the following questions.	[12]
CO2	U (a) Describe all tasks encompassed in Requirements Engineering.	[4]
CO2	R (b) List out different categories of users of the SRS document.	[2]
CO2	A (c) Identify the functional and non-functional requirements in the following problem description and document them. Cosmopolitan clock software is to be developed that displays up to 6 clocks with the names of the city and their local times. The clocks should be aesthetically designed. The software should allow the user to change name of any city and change the time readings of any clock by typing c (for configure) on any clock. The user should also be able to toggle between a digital clock and an analog clock display by typing either d (for digital) or a (for analog) on a clock display. After the stand- alone implementation works, a web-version should be developed that can be downloaded on a browser as an applet and run. The clock should use only the idle cycles on the computer it runs.	[6]

OR

Q.3	Attempt the following questions.	[12]
CO2	U (a) Describe all the characteristics of a good SRS document and bad SRS documents in detail.	[6]
CO2	A (b) Write functional and non – functional requirements of “search, issue and renew of book” in library management system.	[6]