B.E./B.Tech. - DEGREE EXAMINATIONS, APRIL/MAY 2023

Fifth Semester

Information Technology

20ITPW502 - OBJECT ORIENTED ANALYSIS AND DESIGN WITH LABORATORY

(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	What are the three ways and perspectives to Apply UML?	2,K1,CO1
2.	List the 4 phases in UP.	2,K1,CO1
3.	Interpret the meaning of Generalization.	2,K2,CO2
4.	Differentiate sequence diagram and Use case diagram.	2,K2,CO2
5.	Justify the use of rake symbol with an example.	2,K2,CO3
6.	Compare and find the relation between SSD, System Operation and Layers.	2,K2,CO3
7.	Define refactoring.	2,K1,CO4
8.	When can we use pattern?	2,K1,CO4
9.	Write about GUI testing.	2,K1,CO5
10.	Describe the steps needed to create a test plan.	2,K2,CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	What is a POS system? Summarize about Inception Phase.	13,K2,CO1
		OR	
	b)	Define Unified Process Model? Exemplify the iterations, outcomes and workflow in unified Process Model with neat sketch.	13,K2,CO1
12.	a)	(i) Illustrate the concepts of Domain model with example.	8,K2,CO2
		(ii) Show when to model with Description classes with example.	5,K2,CO2
		OR	
	b)	Explain different categories of conceptual classes with examples and discuss the three strategies to find a conceptual class.	13,K2,CO2

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   **11936**

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13. a) (i) Identify when to use UML deployment and Component diagrams.   7,K2,CO3
       (ii) Draw the diagrams for banking applications.   6,K3,CO3

OR

   b) For an ATM system, every user has to be validated with a PIN number   13,K3,CO3
      to make a transaction. A customer is allowed 3times to validate card
      giving the correct PIN number. Show the Use Case representation for
      the same and summarize the "Validate User" Use Case using sequence
      diagram. Assess and represent the activity diagram for the same.

14. a) Identify and describe the patterns that can be used for the following.   7,K2,CO4
       (i) To provide an interface for creating families of objects without
      specifying classes.
       (ii) To ensure that a class has only one instance and provide a global   6,K2,CO4
      point of access to it.

OR

   b) Summarize the Observer pattern for a problem of your choice and   13,K2,CO4
      discuss about the solution with neat diagram.

15. a) Illustrate with neat sketch the software development life cycle of   13,K2,CO5
      object-oriented system.

OR

   b) Formulate the different test cases to estimate about the Student Marks   13, K2,CO5
      Analysis system.

PART - C (1 × 15 = 15 Marks)

16. a) Construct design for Library Information System which comprises the   15,K3,CO2
      following notations and explain them.
         (i) Aggregation
         (ii) Composition
         (iii) Association

OR

   b) Explain the various testing strategies for Software quality assurance.   15, K2,CO5