

UNIT NO: 1

Chapter 1 - Types of Questions.

1. What is software engineering? Differentiate between industrial strength software and student software.
2. List and explain the 6 software quality attributes.
3. Explain the phases of Waterfall model.
4. List & explain the phases of Iterative development model with diagram.
5. Elaborate the phases & milestones of each phases of RUP model with diagram
6. Short Notes:
 - a. Prototype model
 - b. Time boxing model
7. Case Study – Automated Library Management System.

Write Software Problem, Cost, Schedule, Quality, Scale, and Maintenance points related to Case Study topic.

UNIT NO: 2

1. What is Functional requirement in SRS?

Create Functional and Non Functional Requirements for :

Personal home Library Software where you can have Friend as User entity.

2. Design Functional requirement of ATM Withdraw Cash. Design User and System Interaction flow diagram.
3. Draw a decision Tree and decision table for Library Membership automation Software (LMS)
4. Design Functional requirement of s to search book and renew book for Library system
5. Explain: a. Format of SRS document b. Project Cost Management c. Project charter d. WBS dictionary
6. What is work breakdown structure? Draw WBS diagram for website showing Homepage, Marketing Pages , Sales Pages.

7. Describe requirement gathering techniques like 1.Study of existing documents
2.Interview 3.Task Analysis - 3.1Scenario Analysis 3.2Form Analysis with help of example

8. Short Note on : a. Format of SRS document b. Project Cost Management c. Project charter
d. WBS dictionary

9.Solve the problem using the following information for a one-year project, answer the following questions. Recall the PV is the planned value, EV is the earned value, AC is the actual cost and BAC is the budget at completion.

PV= \$ 23000; EV =\$20000; AC =\$25000; BAC = \$120000

What is the Cost variance, Schedule variance, Cost performance index (CPI) and Scheduled performance index (SPI) for the project? Define all the terms and calculate all values

UNIT NO: 3

1.What is Data flow diagram? Draw a DFD of a system that pays worker & Explain the pay workers system

2.What are different types of Coupling and Cohesion?

3.Draw Structure Chart for Sort Program and State Open Closed Principal with the example

4.Give Structured Design Methodology for ATM

5.Give SDM for Problem Statement "Determine the different number of words in an input file"

UNIT NO: 4

1.What is the definition of OO modeling and design?

2.Explain 4 characteristics of object oriented - identity , classification , Inheritance , Polymorphism.

3.Explain Object oriented themes - Abstraction, Encapsulation , Combining data and behavior, sharing

4.With reference to UML, explain the concept of class diagram.

5.What is UML. Draw Class Diagram and Object Diagram for "Rental Movie Application with Invoice and Checkout function"

6.What is sequence diagram in UML? Build sequence diagram for :

Amazon online Shopping (place Order, Bill Payment, Parcel Tracking and Delivery)

7.What is Use Case diagram in UML? Design Use case diagram for Student and Moodle System. Describe use cases added in your diagram.

8.What is Collaboration Diagrams in UML? Design Collaboration Diagram for any online food order application like Zomato or Swiggy. Describe your collaboration Diagram.

UNIT NO: 5

Write Up Questions on Unit 5

1. Describe Agile Scrum Process lifecycle with neat diagram

2.Short Note

A. Story Mapping

B. Test Driven Development

A. Pair Programming

B. Unit Testing

C. Acceptance Testing

Unit NO: 6

1.Analyze why project quality management is essential?

2.Describe any two main processes involved for project quality management.

3.Show use of Cause-Effect Diagram and Flow chart for quality management

4.Quality Control Charts and Histogram to check project quality management