

Anekant Education Societys  
Tuljaram Chaturchand College of Arts, Science and Commerce,  
Baramati.  
Department of BBA (C.A.)  
FYBBA (C.A.) Semester II  
Question Bank  
Subject: Software Engineering (1203)

**Objective Questions**

- 1 RAD stands for
  - a) Relative Application Development
  - b) Rapid Application Development
  - c) Rapid Application Document
  - d) None of the mentioned
  
- 2 Which one of the following models is not suitable for accommodating any change?
  - a) Build & Fix Model
  - b) Prototyping Model
  - c) RAD Model
  - d) Waterfall Model
  
- 3 Which one of the following is not a phase of Prototyping Model?
  - a) Quick Design
  - b) Coding
  - c) Prototype Refinement
  - d) Engineer Product
  
- 4 RAD Model has
  - a) 2 phases
  - b) 3 phase
  - c) 5 phases
  - d) 6 phases
  
- 5 SDLC stands for
  - a) Software Development Life Cycle
  - b) System Development Life cycle
  - c) Software Design Life Cycle
  - d) System Design Life Cycle
  
- 6 Who writes the software requirement Specification Document
  - a) System Developer
  - b) System tester
  - c) System Analyst
  - d) none of these
  
- 7 What is the final outcome of requirement analysis and specification phase?
  - a) Drawing the data flow diagram
  - b) The SRS document
  - c) Coding the project
  - d) user Manual

- 8 The goal of reading SRS document by the software developer is to
- ensure requirements are understandable from a functionality point of view
  - understand the features of the product
  - ensure that the software is developed as per customer needs
  - none of these.
- 9 Which one of the following is not related to DFD?
- Bubbles
  - Arrows
  - Secondary Storage
  - data store
- 10 Entities ,attributes and relationship are associated with
- logical concepts of data
  - physical concepts of data
  - both a and b
  - none of these
- 11 .What encapsulates both data and data manipulation functions ?
- Object
  - Class
  - SuperClass
  - SubClass
- 12 Which of the following is a mechanism that allows several objects in a class hierarchy to have different methods with the same name?
- Aggregation
  - Polymorphism
  - Inheritance
  - All of the mentioned
- 13 Which of the following describes "Is-a-Relationship" ?
- Aggregation
  - Inheritance
  - Dependency
  - All of the mentioned
- 14 UML is used for
- Object Oriented Module Concept
  - Coding of the system
  - Testing of the system
  - none of these
- 15 UML stand for
- Unified Modeling Language
  - Unified Modeling Language
  - Unique Modeling Language
  - None of these

- 16 Who write the Software Requirement Specification (SRS)?  
a)Developer  
b)Tester  
c)Analyst  
d)None of these
- 17 Which of the following is not the desirable characteristics of SRS document?  
a)Concise  
b)Ambiguous  
c)Traceable  
d)Verifiable
- 18 How is software reliability defined?  
a) time  
b) efficiency  
c) quality  
d) speed
- 19 Correctness of OAA and ODD model is accomplished using formal technical reviews by software quality assurance team  
a) Yes b)no
- 20 Which of the following diagram is known as high level DFD?  
a)Context Level Diagram b) First level DFD c) Both d) none of these
- 21 Decision Table consists of  
a)condition statement b) condition entries c) action statements d)Action entries  
e)all of these
- 22 Which of the following is not an attribute of software engineering  
a) Efficiency b) Scalability c) Dependability d) Usability
- 23 What types of models are created during software requirement analysis?  
a) Functional and behavioral  
b) Algorithmic and Data structure  
c) Architectural and structural  
d) usability and reliability
- 24 Software feasibility is based on which of the following  
a) Business and marketing concerns c) Scope, constraints, market  
b) Technology, finance, time, resources d) Technical Power of the developers
- 25 Software deteriorates rather than wears out because  
a) Software suffers from exposure to hostile environments.  
b) defects are more likely to arise after software has been used often.  
c) Multiple change requests introduce errors in component interactions.  
d) Software spare parts become harder to order.

### **Short Answer Questions**

- 1 What is system?
- 2 List the elements of the system.
- 3 Define System Analysis.
- 4 List the types of system.
- 5 Enlist the fact gathering techniques.
- 6 Define Interface
- 7 Explain two skills of system analyst
- 8 Define Software
- 9 Enlist McCall's quality factors.
- 10 Define Software Engineering
- 11 What is pseudo code?
- 12 What is Decision Table?
- 13 What are benefits of prototyping?
- 14 State advantages of waterfall model
- 15 State characteristics of software.
- 16 State stages in SDLC.
- 17 Define ERD
- 18 What is class?
- 19 Enlist various characteristics of software engineering.
- 20 Explain Role of system analyst as an architect and as a salesperson.
- 21 What are the various skills in a system analyst?
- 22 Explain the characteristics of system.
- 23 Explain objectives of SDLC.
- 24 Define data dictionary
- 25 State all symbols of DFD.
- 26 What is abstraction and encapsulation?
- 27 What is Use Case Diagram.
- 28 What is association ?
- 29 What is Composition?
- 30 What is generalization?
- 31 Explain the term inheritance.

- 32 Define State Transition diagram.
- 33 What is economical feasibility?
- 34 Define questionnaires. Give its types.
- 35 What is system design?

**Long answer questions:**

- 1 Explain different types of system.
- 2 Explain system concepts.
- 3 What is role of system analyst?
- 4 Explain the term feasibility study.
- 5 What do you mean by requirement investigation and specification
- 6 Explain various fact finding techniques.
- 7 Explain various McCall's quality factors.
- 8 Explain in detail SRS document.
- 9 Explain classical SDLC.
- 10 Explain prototyping in detail.
- 11 Explain various activities involved in spiral model..
- 12 Discuss contents of Data Dictionary.
- 13 Explain open and closed system
- 14 Explain questionnaire in detail.
- 15 Explain RAD Model with diagram.
- 16 Describe physical and abstract system.
- 17 Explain spiral model in detail.
- 18 Explain the elements of data dictionary.
- 19 Explain software characteristics in detail.
- 20 What is class diagram? List out different classifiers in UML.
- 21 Explain skills expected in system Analyst.
- 22 What is feasibility study? Explain its type.
- 23 Compare structured and unstructured interview.
- 24 Enlist the internal controls of output design.
- 25 Compare logical and physical DFD.

**Write short notes on**

1. Management Information System
2. Computer Based System
3. System components
4. Requirement Anticipation
5. SRS
- 6 Structured Chart
- 7 Fact Finding Techniques
- 8 Decision Tree
- 9 ERD
- 10 Pseudo code
- 11 Feasibility Study
- 12 Qualities of good design

**Case Study :**

- 1 Prepare a Context Level Diagram and First Level Diagram for the Savings Bank Deposit and Withdrawal System in a Nationalized Bank. Also involve calculation of Interest.
- 2 Consider a Student Exam Management System in which following procedures are followed validate student, exam conduction, paper checking, result display, assume student, teacher information is maintained.
  - (a) Identify all entities
  - (b) Draw Content Level Diagram.
  - (c) Draw First Level DFD.
  - (d) Draw Structure Chart.
- 3 The Railway Reservation System functions as follows :

The passenger is required to fill in a reservation form giving details of his journey. The counter clerk ensures whether the place is available. If so, entries are made in the register, tickets are prepared amount is computed and cash is accepted. A booking statement is prepared in a triplicate from the reservation register. One copy of it is retained as office copy, the other is pasted on the compartment and the third is passed on to the train conductor. Besides booking statements, cash statement is prepared at the end of each shift.

  - (a) Identify all entities
  - (b) Draw Content Level Diagram
  - (c) Draw First Level DFD for the System

- 4 Design an I/P screen layout for entering details of patient in a “ Hospital Management System”
- 5 Draw I/P screen layout for employees salary slip.
- 6 Design a screen layout for quotation entry.
- 7 Design an I/p screen for entering the electric bill details of the customer
- 8 Design the output screen for performance report of salesman.
- 9 There are two subjects in the exam called main and ancillary.  
If a person gets 60% or more in the main and 40% or more in ancillary, he passes.  
If less than 60% in main he must get 60% or more in ancillary to pass .  
Special consideration for student who get 40% in ancillary, they allow to repeat the subject.  
Draw decision table and decision tree for the above case.
- 10 Consider a Nationalized banking System that provides new account, withdrawal , deposit and calculates interest for balanced amount in account
  - a) Identify all entities
  - b) Draw context level DFD
  - c) Draw first level DFD for above case study
  - d)
- 11 Consider Life Insurance Corporation System.  
Draw context level DFD and first level DFD for different activities.
- 12 Draw a class diagram for a departmental store system dealing in consumer items.  
Members enjoy facility and can purchase items as and when he or she needs them.  
Store has several counters and one can get almost all kinds of consumer items after visiting these counters.  
Customer becomes member by paying initial membership amount and gets a credit card. Customer has to pay outstanding bill on quarterly basis. System sends remainder to the members. Defaulters not allowed to purchase items until the default amount is cleared. Consider all aspects of above mentioned problem and model diagram appropriately.
- 13 STARFISH Company is offering certain discount on the total amount of purchase. If the purchasing amount is more than 5,000 and the customer is making the payment within 5 days then company offers 5% discount on invoice. If the Purchase Amount is between 3,000 to 5,000 and the customer is making the payment within 5 days then company offers 3% discount. If the amount is less than 3,000 and customer is making the payment within 5 days then no discount offered and customer has to pay full amount. If customer is not able to pay within 5 days then no discount is given.  
Draw Decision Tree and Decision Table.

- 14 Design an output screen layout for electricity bill containing period, customer name, address number, previous and current reading, rate, amount (per unit), penalty, gross amount etc. Suggest validations for screen.
- 15 A Co-operative Bank XYZ will grant loans under the following conditions :
- (1) If a customer has an account with the bank and has no loan outstanding, loan will be granted.
  - (2) If a customer has an account with the bank but some amount is outstanding from previous loans, then loan will be granted if special approval is obtained.
  - (3) Reject loan applications in all other cases.
- Represent above study, using :
- (a) Decision Tree
  - (b) Decision Table