Oral Group1 Model Answer

Tuesday

- **MCQ: [ACDB]**

Q1: Choose the correct answer **[6 Marks]**

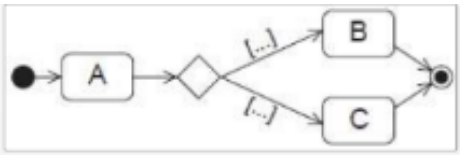
1. Parallel flows are illustrated in activity diagrams using fork and join
(A) True (B) False

2. Which of these software engineering activities are not a part of software processes?
(A) Software specification (B) Software validation
(C) Software dependence (D) Software development

3. ……. are effective techniques for eliciting requirements from stakeholders who interact directly with the system.
(A) Scenarios (B) Use cases
(C) Ethnography (D) Interviews

4. Requirements can be refined using
(A) The waterfall model (B) Prototyping model
(C) The reuse-oriented model (D) The incremental model

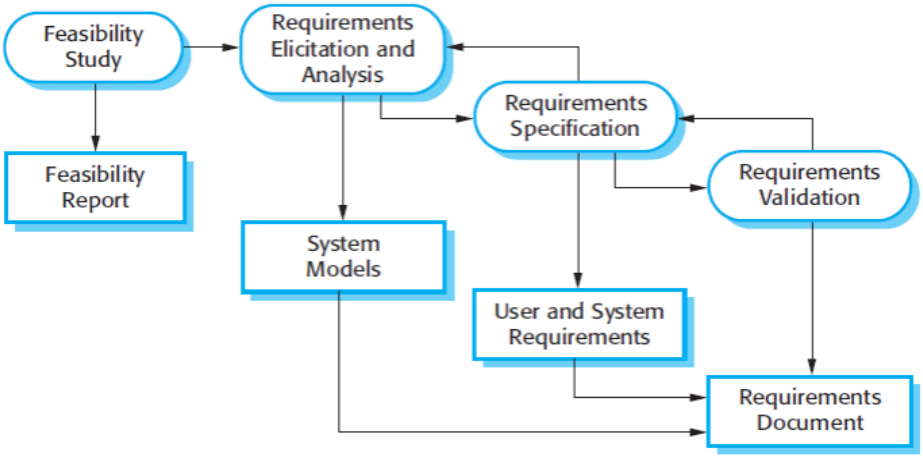
5. You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → C (B) A → B → C
(C) A → B (D) A → C → B

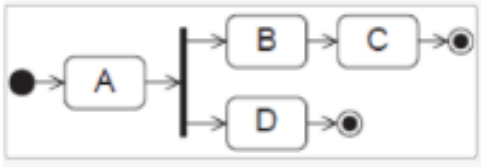
- **[A, C]**

Q2: State the main activities of requirements engineering process? **[4 Marks]**



SC(1,3) + IS(5)

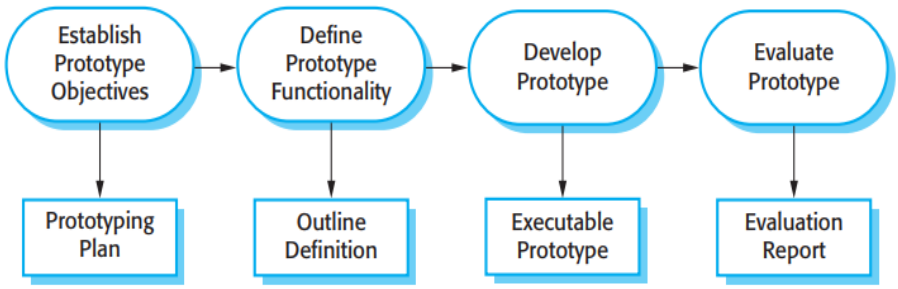
- **MCQ Canceled**



(A) A → B → C
(B) A → B → D
(C) A → D
(D) A → B → C → D

- **[A, B, C]**

Q2: State the main activities of the process of prototype development?



Q1: For each of the following situations, identify the approach: ***plan-driven or agile*** **[6 Marks]**

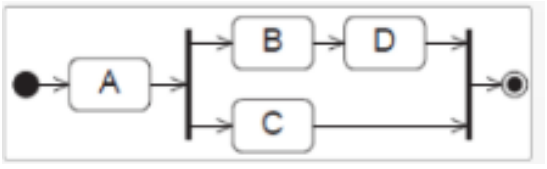
a) When the delivery time is not a problem. (Plan)

b) Used for large systems engineering projects where a system is developed at several sites. (plan)

c) Lower risk of overall project failure. (Agile)

d) The system needs a very detailed specifications and design before moving to implementation. (Plan)

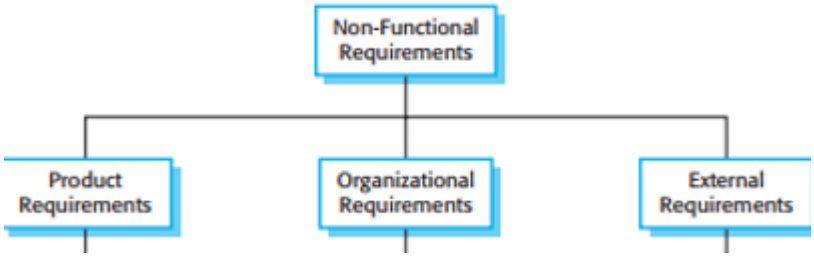
e) You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → B → C → D
(B) A → B → D
(C) A → C
(D) A → B → D → C

- **[A, D]**

Q2: State the types of non-functional requirements?



- **MCQ [DBBC]**

Q1: Choose the correct answer **[6 Marks]**

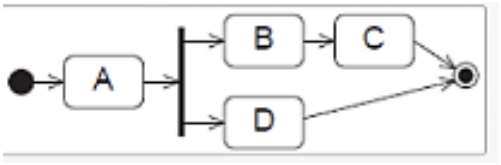
1. Agile Software Development is based on
(A) Incremental development (B) Iterative development
(C) Linear development (D) Both A and B development

2. …….. help discover implicit system requirements that reflect the actual ways that people work.
(A) Interviews (B) Ethnography
(C) Use cases (D) Scenarios

3. Use case diagrams show the order of the use cases' execution?
(A) True (B) False

4. If requirements are easily understandable and defined then which model is best suited?
(A) Prototyping model (B) Incremental development
(C) Waterfall model (D) None of them

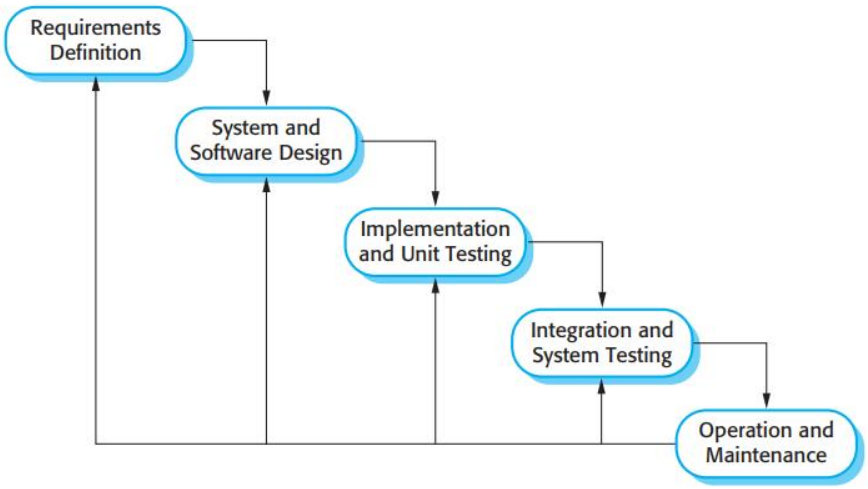
5. You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → B → C (B) A → B → D
(C) A → D (D) A → B → D → C

- **[A, B, C]**

Q2: State the main activities of the waterfall model of the software development process?



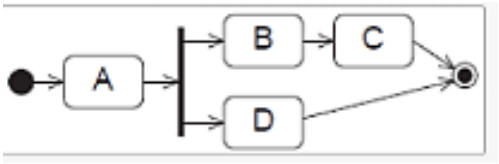
SC(1,3) + IS(5)

Wednesday

Q1: For a library management system, classify each of the following requirements as (a) Security, (b) Maintainability, (c) Performance, or (d) Usability. **[4 Marks]**

1. (d) usability
2. (c) performance
3. (a) security
4. (b) maintainability

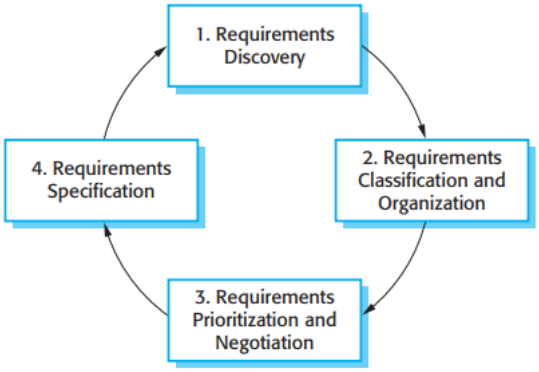
5. You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → B → C
(B) A → B → D
(C) A → D
(D) A → B → D → C

- **[A, B, C]**

Q2: State the main activities of requirements elicitation and analysis process?



- **MCQ [BBCD]**

Q1: Choose the correct answer **[6 Marks]**

1. The prototyping model of software development is
(A) A reasonable approach when requirements are well defined.
(B) A useful approach when a customer cannot define requirements clearly
(C) The best approach to use for projects with large development teams.
(D) None of choices

2. An Extend is a relationship between two use cases showing that one use case can take longer to execute than the other use case.
(A) True
(B) False

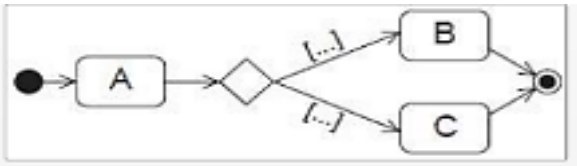
3. Which is not a step of requirement engineering?
(A) Requirements elicitation
(B) Requirements analysis
(C) Requirements design
(D) Requirements documentation

4. Identify the correct functional requirement.

SC(1,3) + IS(5)

(A) Robustness (B) Portability
(C) Maintainability (D) None

5. You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → C (B) A → B → C
(C) A → B (D) A → C → B

- **[A, C]**

Q2: State the main activities of the reuse-oriented software engineering model?

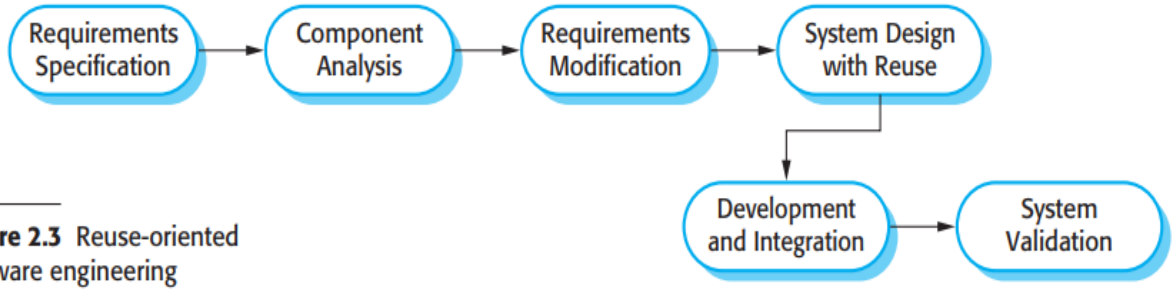


Figure 2.3 Reuse-oriented software engineering

- **MCQ [BDBC]**

Q1: Choose the correct answer **[6 Marks]**

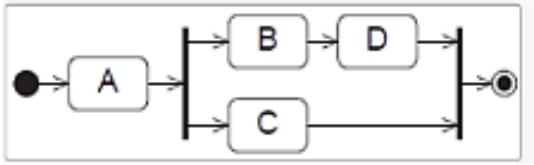
1. In UML a guard condition is shown inside a decision node as with flowchart?
(A) True (B) False

2. Requirements elicitation means
(A) Gathering of requirements (B) Capturing of requirements
(C) Understanding of requirements (D) All of the above

3. Infrastructure software is covered under which of the following categories?
(A) Customized products (B) Generic products
(C) Generic and customized products (D) None

4. Identify a metric of the non-functional requirement
(A) Standards (B) Security
(C) Size (D) None

5. You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?

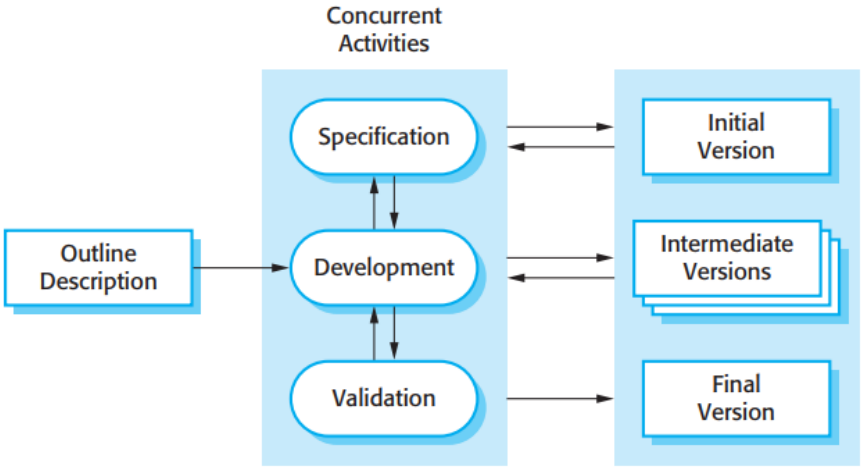


(A) A → B → C → D (B) A → B → D
(C) A → C (D) A → B → D → C

- **[A, D]**

SC(1,3) + IS(5)

Q2: State the main activities of the incremental development model of the software development process?



Q1: Classify the following as ***functional / non-functional*** requirements for a banking system?

[6 Marks]

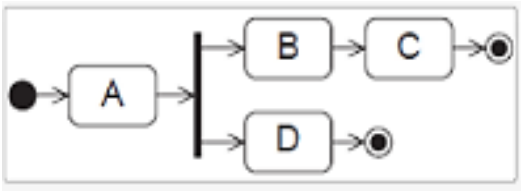
a) Verifying bank balance. (Functional)

b) Withdrawing money from bank. (Functional)

c) Completion of transaction in less than 1 second. (Non-Functional)

d) Extending system by providing more tellers for customers. (Non-Functional)

e) You are given the following activity diagram, which of the following action sequences are possible during one execution of the activity diagram?



(A) A → B → C
(B) A → B → D
(C) A → D
(D) A → B → C → D

- **[A, B, C]**

Q2: State the different techniques used for requirements discovery?

- **Interviews**
- **Ethnography**
- **Scenarios**
- **Use-case**

SC(1,3) + IS(5)