

JUNE 2011**NOTE: There are 9 Questions in all.**

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 Minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 10 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

a. Which one is the most important feature of spiral model?

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|----------------------------|---------------------------|
| (A) Quality management | (B) Risk management |
| (C) Performance management | (D) Efficiency management |

b. Waterfall model is not suitable for

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|---------------------|--------------------------|
| (A) Small Project | (B) Accommodating change |
| (C) Complex Project | (D) None of the above |

c. Which one is not a step of requirement engineering?

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|-----------------------------|-------------------------------|
| (A) Requirement elicitation | (B) Requirement analysis |
| (C) Requirement Design | (D) Requirement documentation |

d. SRS stands for

- (A) System Requirement Source
- (B) Software Requirement Specification
- (C) Specification Released Software
- (D) None of the above

e. The relationship of data elements in a module is called

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|----------------|-----------------------|
| (A) Coupling | (B) Cohesion |
| (C) Modularity | (D) None of the above |

f. The model to measure the software process improvement is

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|-------------|------------------|
| (A) ISO9000 | (B) ISO9126 |
| (C) CMM | (D) Spiral model |

- g. For a function of n variables, boundary value analysis yields
- (A) $4n+3$ test cases (B) $4n+1$ test cases
(C) $n+4$ test cases (D) None of the above
- h. During the development phase, the following testing approach is not used
- (A) Unit testing (B) Bottom up testing
(C) Integration testing (D) Acceptance testing
- i. An internet banking system is an example of
- (A) Two-tier Client Server architecture
(B) Three tier Client Server Architecture
(C) Distribute object Architecture
(D) Multiprocessor architecture
- j. "Information hiding" feature in object oriented design is known as
- (A) Encapsulation (B) Polymorphism
(C) Hierarchy (D) Abstraction

Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks.

- Q.2** a. Explain the spiral model. Illustrate your answer with the help of Block Diagram. (8)
- b. Describe various management activities that a Project Manager is supposed to perform while doing Project Management. (8)
- Q.3** a. Differentiate between (4)
(i) User requirement and System requirement (4)
(ii) Functional and Non-functional requirement (4)
- b. Define and explain Structured Methods in detail. (8)
- Q.4** a. What is Software Prototyping? Explain the process of developing a prototype. (8)
- b. Define and explain software process. Explain with the help of flow chart formal specification in the software process. (8)
- Q.5** a. Explain system organization models in detail. (8)
- b. What is a Distributed System? Explain the significance and limitations of using a Distributed System. (8)

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- Q.6** a. What is meant by Object-oriented development? Explain various stages of Object-oriented design process. (8)
- b. Explain the term “Reuse –base Software Engineering”. List various benefits and limitations of Software Reuse. (8)
- Q.7** a. Define and explain Component based Software Engineering. What are its limitations? (8)
- b. Explain User Interface design process. What are the design issues that are to be considered by UI designers? (8)
- Q.8** a. Explain Verification and Validation. (8)
- b. Compare Black-box and White-box Testing techniques. (8)
- Q.9** a. Differentiate between CMM and ISO. (8)
- b. Define Configuration Management. Explain various stages of Configuration Management Process. (8)