

Time: 3 Hours

June 2018

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

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 16 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)

- Which one of the following is not a phase of Prototyping Model?
(A) Quick Design (B) Coding
(C) Prototype Refinement (D) Engineer Product
- What are attributes of good software?
(A) Software maintainability (B) Software functionality
(C) Software development (D) Software maintainability & functionality
- What is the major advantage of using Incremental Model
(A) Customer can respond to each increment
(B) Easier to test and debug
(C) It is used when there is a need to get a product to the market early
(D) Easier to test and debug & It is used when there is a need to get a product to the market
- Which one of the following is not a software process quality?
(A) Productivity (B) Portability
(C) Timeliness (D) Visibility
- _____ & _____ are two kinds of software products.
(A) CAD, CAM (B) Firmware, Embedded
(C) Generic, Customized (D) None of these
- Which four framework activities are found in the Extreme Programming(XP) ?
(A) analysis, design, coding, testin (B) planning, analysis, design, coding
(C) planning, design, coding, testing (D) planning, analysis, coding, testing
- Risk management is one of the most important jobs for a
(A) Client (B) Investor
(C) Production team (D) Project manager

- h. Which of the following is a mechanism that allows several objects in a class hierarchy to have different methods with the same name?
(A) Aggregation (B) Polymorphism
(C) Inheritance (D) All of these
- i. The UML was designed for describing _____
(A) object-oriented systems
(B) architectural design
(C) SRS
(D) Both object-oriented systems and Architectural design
- j. A component model defines standards for
(A) properties (B) methods
(C) mechanisms (D) all of these

Answer any FIVE Questions out of EIGHT Questions.

Each question carries 16 marks.

- Q.2** a. What is system? Differentiate between system engineering and software engineering. (6)
b. Explain the spiral model in detail. (5)
c. Explain risk management in detail. (5)
- Q.3** a. What do you mean by functional requirements? Discuss different types of functional requirements. (2+4)
b. Explain requirement elicitation process in detail. (5)
c. What do you understand by data dictionary? Where and how it is used? (5)
- Q.4** a. Explain RAD model in detail. (6)
b. Write short notes on: (2×5)
(i) Agile methods (ii) Behavioral specification
- Q.5** a. Explain cohesion and coupling in modular design. (8)
b. Explain client server architectures in detail. (8)
- Q.6** a. Explain object oriented design concepts and methods. (8)
b. What is software reuse? Explain Generator based reuse. (8)
- Q.7** a. Write short notes on the following: (2×4)
(i) User interface prototyping (ii) UI design process
b. What are essentials of a Component Based Software Engineering (CBSE)? List few problems associated with CBSE. (8)
- Q.8** a. Explain Black box testing in detail. (8)
b. Explain following testing methods (2×4)
(i) System testing (ii) Acceptance testing
- Q.9** a. What is the importance of SQA? Explain the SQA activities. (8)
b. Write short notes on: (2×4)
(i) COCOMO model (ii) SCM