Register Number: ……………………..

B.TECH. DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2009)

Sixth Semester

INFORMATION TECHNOLOGY

CSE113**:** Software Engineering

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Problem analysis is done during which phase?

    a) System Analysis   b) System Design

    c) System Testing   d) System Requirement Analysis

2. Which is not Software Life Cycle Model ?

    a) Water fall model   b) Spiral Model

    c) Capability Maturity Model d) Prototype Model

3. The software life cycle can be said to consist of a series of phases. The classical model is referred to as the waterfall model. Which phase may be defined as "The concept is explored and refined, and the client's requirements are elicited?"

    a) Requirements   b) Specification

    c) Design   d) Implementation

4. The waterfall model of software development is _____.

    a) A reasonable approach when requirements are well defined.   b) A good approach when a working program is required quickly.

    c) The best approach to use for projects with large development teams.   d) An old fashioned model that is rarely used any more.

5. The spiral model of software development was _____.

    a) Ends with the delivery of the software product   b) Is more chaotic than the incremental model

    c) Includes project risks evaluation during each iteration   d) All of the above

6. Prototyping is preferred by?

    a) Customer   b) Developer

    c) Tester   d) Programmer

7. Documentation is prepared at in which of the following phase

    a) System Analysis phase   b) System Design Phase

    c) System Implementation phase d) All the above Phases

8. Project Risk factor is considered in which of the following model

    a) Water fall Model   b) Spiral Model

    c) Iterative Enhancement Model d) Prototype Model

9. The final form of testing COTS software is _____ testing.

    a) Unit   b) Integration

    c) Alpha   d) Beta

10. In the maintenance phase the product must be tested against previous test cases. This is known as _____ testing.

    a) Unit   b) Integration

    c) Regression   d) Module

PART B (10 x 2 = 20 Marks)

11. What is the difference between a customer and end-user?

12. List the representations needed for requirements and design models

13. Describe the difference between coupling and cohesion?

14. Which UML diagrams are useful in scenario-based modeling?

15. What is meant by the term software reliability?

16. How is a transaction center different from a transform center in a DFD?

17. Describe scenario-based testing.

18. What is the objective of project planning?

19. Define forward engineering.

20. What activities are associated with reverse engineering?

PART C (5 x 14 = 70 Marks)

21. a) (i) Explain the RAD Models of a software process with neat diagram.   (7)

        (ii) Propose a specific software project that would be amenable to the water fall (7) model. Present a scenario for applying the model to the software.

                                (OR)

    b) (i) What is Data Flow Oriented Design? What are the components of it?   (7)

        (ii) Draw a detailed data flow diagram for the Bank Management system.   (7)

22. a) (i) Explain the importance and impact of software project scheduling.   (7)

        (ii) Discuss briefly on preparation of SRS.   (7)

                                (OR)

    b) (i) Explain the design heuristics for effective modularity in detail with necessary (7) examples.

(ii) Describe the software metric attributes. Also explain about Mc Call's quality (7) factors for software metrics.

23. a) (i) Explain the set of principles for software engineering design. (7)

    (ii) Describe the concept of information hiding. (7)

(OR)

    b) (i) Explain the various design concepts in details. (7)

    (ii) Describe the process and product metrics in detail. (7)

24. a) (i) Who should perform the validation test the software developer or the software (7) user? Justify your answer.

    (ii) Explain software testing principles in detail. (7)

(OR)

    b) (i) Explain the behavioral testing method, which focuses on the functional (7) requirement.

    (ii) Discuss the four types of maintenance in detail. (7)

25. a) (i) Describe the following with example. (i) Code review (ii) Version Control. (7)

    (ii) Enumerate software Quality Assurance and items covered under SQA. State the (7) need.

(OR)

    b) (i) Write short notes on: (i) Software Configuration management (ii) Reverse (7) Engineering.

    (ii) What is the difference between an SCM audit and a formal technical review? (7) What are the pros and cons?

****