

M.E DEGREE EXAMINATIONS: JANUARY 2009

First Semester

COMPUTER SCIENCE AND ENGINEERING

P07CS104: Software Engineering Methodologies

Time: Three Hours

Maximum Marks: 100

Answer ALL Questions:-

PART A (20 x 1 = 20 Marks)

1. The no of stages in waterfall model is
 - a. 5
 - b. 8
 - c. 6
 - d. 7
2. CMM frame work provides
 - a. General rules of software
 - b. General algorithm for development
 - c. Characteristics of each level
 - d. Certification for organization
3. Software engineering deals with 3 entities namely
 - a. Process, project & product
 - b. Software, process & requirements
 - c. Project, product & maintenance
 - d. Process, software & maintenance
4. Process visibility is activated through the creation of
 - a. Process management
 - b. Process model
 - c. Deliverable documents
 - d. Process document
5. Software requirement document is description of the requirement by
 - a. Customer & Developers
 - b. Developers & Product
 - c. Product & Customer
 - d. Development & Product
6. The activity of translating the information got during analysis into a document is
 - a. Requirement analysis
 - b. Feasibility study
 - c. Requirement Specification
 - d. Requirement definition
7. Data-driven models are generally the result of
 - a. Development Analysis
 - b. Process Analysis
 - c. Statistical Analysis
 - d. Object Analysis

8. Object models developed during requirement analysis may be used to represent
- System data & its processing
 - Processing & development
 - Development of system data
 - Real time objects
9. The design process involves developing several models of the system at different levels of
- Object
 - Process
 - Abstraction
 - Component
10. The indication of strength of interconnections between the components in a design is known as
- Cohesion
 - Understanding
 - Coupling
 - Reference
11. _____ are allotted to components & interfaces of components in component design.
- Component
 - Data structure
 - Services
 - Abstract
12. _____ messages should other offer suggestions, how to repair & provide link to help.
- Error
 - Alert
 - Reminder
 - System Call
13. _____ is a condition that causes on system to fail in performing its required function
- Error
 - Failure
 - Un-Executable
 - Fault
14. Integration testing is the combination of
- Unit & Module testing
 - Module & Subsystem Testing
 - Subsystem & System Testing
 - Module & System testing
15. Black box testing does not need access to
- Objects
 - Components
 - Process
 - Source Code

16. _____ is intended to show that the program does what the user requires.
- Requirements
 - Validation
 - Verification
 - Test plan
17. Quality planning should begin at _____ stage of software process.
- Development
 - Early
 - Testing
 - Implementation
18. _____ technology may be classified according to the function it provides, software process, size of test
- SEI
 - CMM
 - CASE
 - Object Oriented
19. The formula for algorithmic cost modeling is
- $C \times PM^s \times M$
 - $S \times PM^c \times M$
 - PM^m / C
 - PM^c / S
20. The risk analysis involves in estimating hazard
- Probability & Severity
 - Probability & resultants
 - Data loss
 - Severity & quality of software

PART B (5 x 16 = 80 Marks)

21. a. What is the basis of evolutionary model? What are the characteristics of evolutionary model?

(OR)

- Explain with example, component based development (8)
 - Explain difference between process maturity and CMM (8)
22. a. i. List & explain steps involved in validity requirements (8)
- Explain in detail, object oriented design process (8)

(OR)

- Explain various process involved in requirement engineering

23. a. What are different stages in component level design? Explain in detail

(OR)

b. i. Compare pattern based & Architecture based design (8)

ii. Explain role played by user interface analysis (8)

24. a. Explain in detail about integration testing & different strategies that can be adopted in it.

(OR)

b. Explain in detail test plan, test strategies & test document

25. a. Discuss with example how the s/w cost can be evaluated.

(OR)

b. What are the two objects that can be identified in the software configuration management? Explain the distinct feature of those objects.
