

C 3158

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Fourth Semester

Information Technology

CS 1353 — SOFTWARE ENGINEERING

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write any two software engineering challenges.
2. Identify in which phase of the software life cycle the following documents are delivered.
 - (a) Architectural design
 - (b) Test plan
 - (c) Cost estimate
 - (d) Source code document.
3. Define the terms product and process in software engineering.
4. List out the elements of analysis model.
5. What are the types of coupling?
6. Name the three levels of abstraction, which are in practice for the design.
7. Assume a program for computing the roots of a quadratic equation. List out the test cases using equivalence partitioning method.
8. Write the steps involved in testing real time systems.
9. Define basic equation for the effort estimation models.
10. Categorise the project planner estimates in FP based estimation.

PART B — (5 × 16 = 80 marks)

15.

11. (a) Explain the linear software life cycle model with suitable illustration. Bring out the demerits of this model. (16)

Or

- (b) (i) How do you differentiate software engineering from system engineering? (6)
- (ii) For each of the types of process models, identify the types of project suitable to implement. (6)
- (iii) Distinguish between verification and validation process. (4)
12. (a) (i) With a suitable example explain about the application of use cases in deriving the scenarios. (8)
- (ii) Explain the various prototyping methods and tools used for requirement analysis. (8)

Or

- (b) Discuss in detail about the elements in data modeling. (16)
13. (a) What are different types of architectural styles exist for software and explain any one software architecture in detail. (16)

Or

- (b) (i) Describe activities of SCM in detail. (8)
- (ii) Explain the user interface design activities. (8)
14. (a) (i) Why is testing important? (6)
- (ii) Narrate the path testing procedure in detail with a sample code. (10)

Or

- (b) (i) Distinguish between black box and white box testing. (6)
- (ii) Explain the different integration testing approaches. (10)

15. (a) What are the metrics used for estimating cost? Discuss in detail about the COCOMO model in cost estimation of the software. (16)

Or

(b) Write short notes on :

(i) CASE tools (8)

(ii) Data Structure Quality Index. (8)

ustration.
(16)

system
(6)

project
(6)

(4)

cases
(8)

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(8)

(16)

nd
(16)

(8)

(3)

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