

B 2277

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

Fourth Semester

Information Technology

IF 255 — SOFTWARE ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between verification and validation.
2. What does a system engineering model accomplish?
3. How to represent the content of the data object in a data dictionary?
4. What are the generic classes of methods and tools, available to conduct rapid prototyping?
5. Differentiate between cohesion and coupling.
6. What is an architectural style?
7. What errors are commonly found during unit testing?
8. What is security testing?
9. What functions are performed by the services that are coupled with the CASE repository?
10. What is the difference between direct and indirect measures?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the various software life cycle models. (16)

Or

- (b) Explain the Business process and Product engineering. (16)

12. (a) Explain the requirements engineering process. Why is it difficult to gain a clear understanding of what the customer wants? (16)

Or

(b) Explain the mechanics of structural analysis. What steps are required to build an ERD? Are there any useful guidelines for creating DFD? (16)

13. (a) Explain the transform and transaction mapping with appropriate DFDs. (16)

Or

(b) Explain the fundamental design concepts. (16)

14. (a) Explain the various black box testing methods. (16)

Or

(b) Explain Integration testing. What are the steps for top-down and bottom-up integration? (16)

15. (a) Explain the software cost estimation methods. (16)

Or

(b) Explain building blocks of CASE. What is the taxonomy of CASE tools? What are the benefits of Integrated CASE? (16)