

D 287

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2003.

Fourth Semester

Information Technology

IF 255 — SOFTWARE ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Distinguish clearly between verification and validation.
2. What is embedded system process?
3. What are non-functional requirements for a software?
4. What is the role of data dictionary?
5. What do you mean by horizontal and vertical partitioning?
6. How do you evaluate user interface?
7. What is stress testing?
8. State the guidelines for debugging.
9. What is Delphi cost estimation technique?
10. What is CASE?

PART B — (5 × 16 = 80 marks)

11. Explain iterative water fall and spiral model for software life cycle and discuss various activities in each phase.
12. (a) Explain the ways and means for collecting the software requirements and how are they organized and represented.

Or

- (b) Describe various prototyping techniques and discuss on analysis and modeling.
13. (a) Discuss the impact of cohesion, coupling, fan-in, fan-out and factoring in design phase.

Or

- (b) Explain the real time software design and discuss the same for a data acquisition system.
14. (a) What is black box testing? Is it necessary to perform this? Explain various test activities.

Or

- (b) Explain the integration testing process and system testing processes and discuss on their outcomes.
15. (a) Explain the need for software measures and describe various metrics.

Or

- (b) Discuss briefly on software maintenance activities and how do you estimate the cost involved. Explain.