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Question Paper Code : 21306

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Fifth Semester

Computer Science and Engineering

CS 2301/CS 51/10144 CS 502 — SOFTWARE ENGINEERING

(Regulation 2008/2010)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is software process? List its activities.

2. Distinguish between verification and validation.

3. List the benefits of software prototyping.

4. What is data dictionary?

5. Define data abstraction.

6. Write the use of data acquisition system.

7. What is black box testing?

8. Write down the generic characteristics of software testing.

9. Compare size-oriented with function-oriented metrics.

10. What do you mean by estimation risk?

PART B — (5 × 16 = 80 marks)

11. (a) (i) With a neat sketch, explain the function of system engineering process. (10)

(ii) What is computer based system? Explain the various system elements used in it. (6)

Or

(b). (i) Explain the business process engineering hierarchy with an example. (14)

(ii) What is the goal of product engineering? (2)

12. (a) (i) Explain the metrics used for specifying non-functional requirements. (8)

(ii) Show the template of IEEE standard software requirements document. (8)

Or

(b) (i) Explain the function of requirements engineering process. (8)

(ii) Describe the use of behavioral model with examples. (8)

13. (a) (i) Discuss the design heuristics for effective modularity design. (8)

(ii) Explain the architectural styles used in architectural design. (8)

Or

(b) (i) List the activities of user interface design process. (8)

(ii) Explain the general model of a real time system. (8)

14. (a) Explain the integration testing in detail. (16)

Or

(b) (i) Write note on unit testing. (8)

(ii) Explain the categories of debugging approaches. (8)

15. (a) (i) Explain the use of COCOMO model. (8)

(ii) Describe the steps involved in project scheduling process. (8)

Or

(b) (i) Briefly discuss the activities of Software configuration management. (8)

(ii) Explain the types of software project plan. (8)

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