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Question Paper Code : 51346

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Fifth Semester

Computer Science and Engineering

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

(Regulation 2008/2010)

(Common to PTCS 2301–Software Engineering for B.E.(Part–Time) Fifth Semester
Computer Science and Engineering –Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Distinguish verification and validation.
2. Define System Engineering.
3. What do you mean by functional and non-functional requirements?
4. List two advantages of employing Prototyping in Software Process.
5. Define Software Architecture.
6. List the notations used in Data-flow models.
7. What are the classes of loops that can be tested?
8. What is Cyclomatic complexity?
9. What is software configuration management?
10. What is error tracking?

PART B — (5 × 16 = 80 marks)

11. (a). Discuss in detail about any two evolutionary process models.

Or

- (b) (i) Discuss about the classic Waterfall process model. (8)
- (ii) Explain the prototype paradigm in process models. (8)

12. (a) (i) What are the components of the standard structure for the software requirements document? Explain in detail. (8)
- (ii) Write the software requirement specification for a system of your choice. (8)

Or

- (b) What are the types of behavioural models? Explain with examples.
13. (a) Explain in detail about any four architectural styles.

Or

- (b) (i) What are the characteristics of a real-time system? Explain why real-time systems usually have to be implemented using concurrent processes. (6)
- (ii) Illustrate with the aid of an appropriate example how to design a real-time monitoring and control systems. (10)
14. (a) Explain in detail about the Integration testing.

Or

- (b) Explain in detail about Basis path testing
15. (a) (i) What is COCOMO model? Explain in detail. (8)
- (ii) What are CASE tools? Explain the role of CASE tools in software development process. (8)

Or

- (b) (i) Elaborate on Software Configuration Management. (10)
- (ii) What are the categories of software risks? Give an overview about risk management. (6)
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