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Question Paper Code : 51384

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

Fifth Semester

Computer Science Engineering

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

(Regulations 2008/2010)

(Common to PTCS 2301/10144 CS 502 – Software Engineering for B.E. (Part-Time) Fifth Semester CSE – Regulations 2009/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. Differentiate software engineering and system engineering.
2. List the dimensions of dependability.
3. How requirements are classified ? List them with an example for each.
4. Draw a simple semantic data model for a Library Management System.
5. List the facilities to be provided in a system to recover users from their mistakes.
6. Give any two guidelines followed in modeling real time system.
7. What is unit testing ?
8. List the various types of interface errors.
9. Define: Risk. What are its types ?
10. List any four CASE tools.

PART – B (5 × 16=80 Marks)

11. (a) How extreme programming based development model helps in managing changing requirements from the customer side ? Explain it with a neat diagram.

OR

- (b) What are the advantages of Evolutionary life cycle model ? Explain any one of them in detail.

12. (a) Draw a complete System Sequence diagram for an “ATM Transaction System”.

OR

- (b) What are the types of behavioral models ? Draw them for “Library Management System”.

13. (a) What is a system organization ? Illustrate the purpose of different organizational styles in architectural design of Software.

OR

- (b) (i) List the guidelines imposed when using Color in an User Interface Design.
(ii) Discuss the approaches applied in User Interface Prototyping.

14. (a) Appraise the purpose of system testing with a high level explanation on all its types.

OR

- (b) What is the purpose of structural testing ? Explain any two types of it with an example.

15. (a) (i) How effort is calculated using the FP based Complexity measure for a system in which the following data exists :

No. of User Inputs - 40

No. of User Outputs - 10

No. of Enquiries - 5

No. of Internal Logic Files - 5

No. of External Interfaces - 2

Assume your own complexity level for each of the categories and your own values for the 14 questions raised to the customers. (10)

- (ii) Prepare RIS sheets for any two risks associated with "Automated Airline Controller" software. (6)

OR

- (b) (i) Apply COCOMO II model to estimate total time and effort required to develop a software of KLOC 230. (6)

- (ii) How change control activities are used to control the SCM process ? Explain. (10)