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Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Sixth Semester

Branch: Computer Science and Engineering/Information Technology

SOFTWARE ENGINEERING (R, T)

(Old Scheme—Supplementary/Mercy Chance)

[Prior to 2010 Admissions]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

- 1. Explain the Automated Cross Referencing method for SRS validation.
- 2. Differentiate between Monitoring and Control Phase and Termination Analysis Phase.
- 3. Explain the characteristics of the "egoless team" and the "democratic team" structuring philosophies.
- 4. What all important information must a Software Configuration Management Plan generally have?
- 5. How does modularity help a software system? When do we call a software system modular?
- 6. What do you mean by Stability Metrics for a design?
- 7. Comment on the importance of Internal Documentation.
- 8. What do you mean by Unit Testing? Explain how it is carried out during code verification.
- 9. What are Test Oracles? Explain their necessity.
- 10. What are the major issues in testing classes in an Object Oriented Software?

 $(10 \times 4 = 40 \text{ marks})$

Part B

Answer all questions.

Each full question carries 12 marks.

11. (a) What do you mean by Requirement Review? How is it carried out? Comment on its effectiveness.

(8 marks)

(b) What are the advantages of Phased Development Process of software?

(4 marks)

Or

12. Explain the methods of Structured Analysis of requirements by using DFDs and Data Dictionaries.

Turn over

13. What do you mean by Risk Assessment? How is it carried out? Give any six major risk items that can be anticipated in a software project, and associated techniques to manage them.

Or

- 14. Explain the purpose of Software Assurance Plan. What are the tasks involved in SQAP?
- 15. Explain in detail, any one approach for Design Verification.

Or

- 16. Explain the general design principles that are applicable to most of the software design approaches.
- 17. How does Proof of correctness method differ from error detection method for code verification? Explain.

Or

18. (a) Explain the Law of Demeter for object oriented programs.

(6 marks)

(b) Explain in detail, the Code Inspection and Review process.

(6 marks)

19. Illustrate Data Flow Based Testing with an example.

Or

20. (a) Explain the basic levels of Testing.

(6 marks)

(b) What is a Test Plan? What all information does it contain?

(6 marks)

 $[5 \times 12 = 60 \text{ marks}]$