C 61503   (Pages 2)   Name..................

                                                             Reg. No...............

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, APRIL 2014

(2009 Scheme)

IT 09 601—SOFTWARE QUALITY MANAGEMENT

(Regular/Supplementary/Improvement)

Time : Three Hours   Maximum : 70 Marks

Part A

*Answer **all** questions.*

1. What does sigma six represent ?

2. List the rules of software configuration management audits ?

3. What is the need for establishing software standards ?

4. Write the four axioms of testing.

5. How is reliability and availability of a software calculated ? What is their role in Software Quality Management ?

                                                        (5 × 2 = 10 marks)

Part B

*Answer any **four** questions.*

6. Explain the role of Software Quality Assurance.

7. What is the need for automated tools ?

8. How is a successful inspection program initiated ?

9. Discuss about the different tools and techniques available for testing. How will you perform real time testing ?

10. What are sigma-Six and Quality Function Deployment ? Explain their importance in quality management.

11. Discuss about the factors to be considered for defect prevention.

                                                        (4 × 5 = 20 marks)

Part C

*Answer section (a) **or** (b) of each question.*

12. (a) Explain how the assessment of software process is conducted.

                                    Or

                                                             Turn over

(b) Write a note on :

    (i) SQA consideration ;

    (ii) SQA people ;

    (iii) SQA plan.

13. (a) Explain in detail about the role of baselines in Software Configuration Management.

Or

(b) Explain about software configuration management plan.

14. (a) Explain about :

    (i) Types of review ;

    (ii) Conduct of inspection.

Or

(b) Explain the need for quality standards. Explain CMM and ISO 9000 series.

15. (a) Explain the seven types of software tests.

Or

(b) What are the various measures for software quality ? How they are used in assessing quality of software ?

                                          (4 × 10 = 40 marks)