P1809

[4859]-212

B.E. (Computer Engineering)
d-SOFTWARE TESTING AND QUALITY ASSURANCE
(2008 Course) (Semester-I) (Elective-II)

Time : 3 Hours] *[Max. Marks : 100*
Instructions to the candidates:
  1) *Answers to the two sections should be written in separate answer books.*
  2) *Answer three questions from Section-I and three questions from Section-II.*
  3) *Neat diagrams must be drawn wherever necessary.*
  4) *Figures to the right side indicate full marks.*
  5) *Assume suitable data if necessary.*

SECTION-I

Q1) a) State the importance of software testing. Explain the role of software testing in software quality assurance with criteria for completion of testing. **[8]**

b) Explain the test plan with an example. **[8]**

OR

Q2) a) Explain the testing life cycle activities. **[8]**

b) Explain the testing strategies used in software testing. **[8]**

Q3) a) Explain any two white box testing methods with test case design. **[10]**

b) How do the test cases are derived in graph based testing? **[8]**

OR

Q4) a) Explain any two black box testing methods. **[10]**

b) Explain the need of domain testing with the design of test cases. **[8]**

Q5) a) Explain the equivalence partitioning testing method with an example. **[8]**

b) Describe the data flow testing with example. **[8]**

OR

Q6) a) Explain the testing of a student attendance monitoring system with test cases. **[8]**

b) Compare white box and black box testing methods. Give the challenges of white box testing. **[8]**

SECTION-II

Q7) a) What are testing metrics? Explain the purpose of testing metrics in measurement of software quality. **[8]**

b) Explain the regression and smoke testing. **[10]**

OR

Q8) a) Describe random testing and validation testing. **[10]**

b) Explain the quality attributes of a software product. **[8]**

Q9) a) Explain the measurement tools and techniques used in testing. **[8]**

b) Explain ISO quality factors. **[8]**

OR

Q10) Explain the following in brief: **[16]**
   a) Goal Question Metric.
   b) Quality Control.
   c) Verification.
   d) Cost of quality.

Q11) a) What is the need and importance of automated testing? Explain with an example. **[8]**

b) Explain the testing of a web based application with an example. **[8]**

OR

Q12) a) Explain the GUI testing. **[8]**

b) Explain an automated testing tool with its features. **[8]**

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