

Total No. of Questions : 12]

SEAT No. :

**P1809**

**[4859]-212**

[Total No. of Pages : 2

**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

**P.T.O.**

- 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]

