

Total No. of Questions : 12]

SEAT No. :

**P2799****[5154]-181**

[Total No. of Pages : 2

**B.E.(Computer Engineering)****SOFTWARE TESTING AND QUALITY ASSURANCE****(2008 Pattern) (Semester - I) (Elective-II ) (410445D)****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) What is verification and validation? Explain the testing lifecycle. [10]  
 b) Explain the defect report with an example. [6]

**OR**

- Q2)** a) Explain the importance of testing with different types of testing. [8]  
 b) Explain the different testing strategies. [8]

- Q3)** a) Explain the need of black box testing with positive and negative testing. [10]  
 b) Explain boundary value analysis and domain testing. [8]

**OR**

- Q4)** a) Differentiate between black box and white box testing. Explain equivalence partitioning testing. [10]  
 b) Explain the graph based testing methods. [8]

- Q5)** a) How do you derive test cases using loop testing? [8]  
 b) Explain the testing of object oriented system with example. [8]

**OR****P.T.O.**

- Q6)** a) Explain mutation and data flow testing. [8]  
 b) What is the need of white box testing? How it is applied in statement coverage? [8]

### **SECTION-II**

- Q7)** a) Describe the types of testing metrics. [8]  
 b) Explain the following in brief. [10]  
     i) Goal question metric  
     ii) Sanity testing  
     iii) Smoke testing

OR

- Q8)** a) Explain the regression and validation testing. [10]  
 b) Explain GUI testing with example. [8]
- Q9)** a) Explain quality assurance and quality control. [8]  
 b) State and explain the quality factors. [8]

OR

- Q10)** Explain the following in brief. [16]  
 a) TQM  
 b) SQA model  
 c) Quality attributes  
 d) Scenario testing

- Q11)** a) Explain the automated testing with an example. [8]  
 b) How GUI testing is carried out with a testing tool? [8]

OR

- Q12)** a) Compare automated testing with manual testing. Give the design of test cases for an authentication system. [8]  
 b) Explain how functional testing can be done with a tool. [8]

