

[5254] - 171

B.E. (Computer Engineering)

SOFTWARE TESTING AND QUALITY ASSURANCE

(2008 Pattern) (Elective - II) (Semester - I)

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 software testing? Explain the importance of software testing in software development life cycle. [8]

b) Explain the significance of Test Plan with its format. [8]

OR

Q2) a) Explain the phases of software testing with activities. [8]

b) What is defect lifecycle? Explain with activities. [8]

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

b) Explain domain and documentation testing. [8]

OR

Q4) a) What is black box testing? Compare with white box testing and explain how you derive test cases in equivalence testing. [10]

b) Explain the need of positive and negative testing with example. [8]

Q5) a) How do you derive test cases using basis path testing? [8]

b) Explain the design of test cases with loop testing and data flow testing. [8]

OR

P.T.O.

- Q6)** a) Explain the purpose and importance of white box testing with testing types. [8]
b) Explain the graph based testing methods. [8]

SECTION - II

- Q7)** a) Describe the testing metrics and measurement tools. [8]
b) Explain the following in brief. [10]
i) Validation testing
ii) Scenario testing
iii) Adhoc testing

OR

- Q8)** a) Explain the regression testing and sanity testing methods. [10]
b) Explain the Goal Question Metric model. [8]
- Q9)** a) What is software quality assurance and control? Explain. [8]
b) Explain any four quality factors. [8]

OR

- Q10)** Explain the following in brief: [16]
a) Six Sigma
b) TQM
c) ISO
d) Smoke testing

- Q11)** a) Explain the GUI testing with an example. [8]
b) Explain the features of a functional testing tool. [8]

OR

- Q12)** a) What are the advantages of automated testing? Compare automated testing with manual testing. [8]
b) How web based application testing can be done with a tool? [8]

▽▽▽▽