

Total No. of Questions : 12]

SEAT No. :

P1150

[Total No. of Pages : 2

[4659]-511

B.E. (Computer Engineering)

SOFTWARE TESTING AND QUALITY ASSURANCE

(2003 Pattern) (Semester - II)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates :

- 1) *Answers to the two sections should be written in separate books.*
- 2) *Figures to the right indicate full marks.*
- 3) *Assume suitable data, if necessary.*

SECTION - I

- Q1)** a) Explain in detail three measurement scale types: Nominal, ordinal and interval scales. Give examples related to software domain. [8]
b) Discuss four principles of investigation in detail. [8]

OR

- Q2)** a) How to define, collect, store and extract data? Explain with example. [12]
b) Define measurement and explain in detail the representation condition for measurement. [4]

- Q3)** a) What are the different attributes which capture the key aspects of software size? Explain in detail with examples. [8]
b) What is cyclomatic complexity? When it is used? Explain. [8]

OR

- Q4)** a) What are the different metrics used in object oriented methodology. [8]
b) Explain Halstead's software science method to measure the size of a program. [8]

- Q5)** a) What are typical origins of defects? Explain Defect Life Cycle. [10]
b) Explain in detail White Box test case design approach. [8]

OR

- Q6)** Write short note on : [18]
a) Positive and negative testing.
b) User documentation testing.
c) Domain Testing.

P.T.O.

SECTION - II

- Q7)** a) Enumerate all the components of test plan. Explain test environment and test deliverables in detail. [8]
b) What is integration testing? What are its types? Explain in brief. [8]

OR

- Q8)** a) Explain “Challenges in Software Test Automation”. What are the various criteria for selecting automated test tools. [8]
b) Write short note on any two : [8]
i) Usability Testing.
ii) Ad hoc Testing
iii) Scenario testing.

- Q9)** a) Explain with example Six Sigma measure of software Quality. [8]
b) Explain with example : [8]
i) Checklists.
ii) Run charts.

OR

- Q10)** a) Define the terms: Quality, Quality Control, Cost of quality, SQA. [8]
b) Discuss Edward Deming’s principles. [8]

- Q11)** a) Explain in detail all the activities involved in Fix Distribution. [10]
b) Explain the role of customer repository, defect repository and customer support repository in problem reporting. [8]

OR

- Q12)** a) What are the challenges, best practices and pitfalls in problem resolution. [8]
b) What is software maintenance? Why is it necessary? Explain the role of support analyst. [10]

