[5670]-706
B.E. (Computer Engg.)
SOFTWARE TESTING AND QUALITY ASSURANCE
(2015 Course) (End sem.) (Elective-II)

Time : 2½ Hours]   *[Max. Marks :70*
Instructions to the candidates:
1) *Assume suitable data if necessary mention your assumptions.*
2) *Right indicates the full marks and Bifurcation for sub questions.*
3) *Draw suitable diagrams and tables if necessary.*

Q1) What is software quality? what is mean by quality attribute of the software? Explain continual improvement cycle with neat labeled diagram of plan-Do-check-Act (PDCA) framework. **[3+3=6]**

OR

Q2) a) What is impact of defect in different phases of software development?

b) What is bug tracking, bug fixing & bug verification.

[3+3=6]

Q3) a) What is mutation testing? Give an example

b) What is white box testing and Black Box testing? what are the different methods for white box and Black box testing? Explain any one methods of each in detail.

[3+4=7]

OR

Q4) What traceability matrix? Explain requirement traceability matrix with example. List advantages of requirement traceability Matrix.

[3+4=7]

Q5) a) What are the selection criteria of automated testing tool?

b) What are the difference in testing automation in agile and waterfall model?

[3+4=7]

OR

Q6) a) Discuss " automation in extreme programming".

b) What are some of the challenges in automating the testing of GUI portions of an application? How do these compare with the automation of back-end testing?

[3+4=7]

Q7) a) What is selenium? What are different features of selenium IDE?

b) What is selenium web driver? What are the selenium web drives having differences with RC

c) What are selenium test design considerations?

[6+5+5=16]

OR

Q8) a) Describe selenium web driver architecture with the help of neat diagram.

b) What is Selenium? What are the different features of it?

c) Enlist and explain the components of selenium tool.

[6+5+5=16]

Q9) a) What does SQA ensure? what are the goals of SQA?

b) State & explain principles of quality management.

c) What is ISO standard? what are its advantages?

[6+6+5=17]

OR

Q10) a) What is six sigma? Explain the terms DMAIC & DMADV.

b) Define software Quality and software quality assurance . List the various objectives of SQA.

c) How cost and risk factors are affecting software quality.

[6+6+5=17]

*Q11)*a) Enumerate Ishikawa's seven basic quality tools. Explain any two in detail.

    b) Describe key elements of total quality management

    c) Explain with example product quality metric.

                                                             [6+6+5=17]

<div align="center">OR</div>

*Q12)*a) Write short note on total quality management (TQM)

    b) Explain following terms (any two)

       i)   control chart

       ii)   Scatter diagrams

       iii)   Checklists

    c) Describe in detail defect Removal effectiveness.

                                                            [6+6+5=17]

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