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Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 & Onward) (Sem.-6)
SOFTWARE TESTING & QUALITY MANAGEMENT
Subject Code : MCA-604
M.Code : 74758

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

- Q1 a) Discuss different objectives and principles of software testing.
b) What is meant by Structural testing? Explain.
- Q2 Discuss the following types of software testing techniques:
a) Unit Testing
b) System Testing

SECTION-B

- Q3 a) What are different path-predicates used for path testing? Explain.
b) Explain different applications of data flow testing.
- Q4 a) What is flow-anomaly-detection? Explain how approximation in number of paths helps in software testing.
b) Explain the concepts of path-sums and loops for path testing.

SECTION-C

- Q5 a) What are different standards used for measuring software quality? Explain.
b) What is TQM model for software quality? Explain.
- Q6 a) What is meant by SPICE project? Explain.
b) What are different tools and techniques used for quality planning? Explain.

SECTION-D

- Q7 a) What is meant by quality assurance? Explain.
- b) How Flowcharts are helpful for software quality control? Explain.
- Q8 Explain the following :
- a) Quality Improvement
- b) Outputs for quality planning

SECTION-E

- Q9 Answer briefly :
- a) Comment on limitations of testing.
- b) Differentiate error and bug.
- c) What is meant by Failure Analysis?
- d) Define Data Flow Model.
- e) What are reduction procedures for software testing?
- f) Discuss briefly about six-sigma-concept.
- g) What is meant by CMM used for software quality?
- h) What are the results for standards of quality control measurement?
- i) What are different outputs for quality control?
- j) Discuss the use of completed checklist for quality control.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.