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Paper Id: 1 4 7 8

Sub Code: NMCAE43
Roll No:

MCA

(SEM V) THEORY EXAMINATION 2017-18

SOFTWARE TESTING

Time: 3 Hours *Total Marks: 100*

Notes: *Attempt all Sections. Assume any missing data.*

SECTION A

Q1. Attempt all questions. Each question carries 2 marks 10 x 2 = 20

(a) Define the objective of software testing.
(b) Define defects with an example.
(c) Define control flow diagram with an example.
(d) List out types of system testing.
(e) Differentiate between verification and validation.
(f) What are the elements to be tested in maintenance phase?
(g) What are the parametric models used in cost estimation?
(h) What is the function of a moderator in inspecting test plans?
(i) Which method is used for testing prototypes? Why?
(j) How do structural testing methods differ from functional testing methods?

SECTION B

Q2. Attempt any *five*. Each question carries 10 marks 5 x10 = 50

(a) Discuss the attributes associated with software quality in detail.
(b) What is test metric? List the various test metrics associated with software testing. Explain any two.
(c) What is defect management? List the different activities. Explain any two.
(d) Explain the steps associated in creating the equivalence classes for the given problem requirements.
(e) Identify the steps in the generation of tests, using the category partition method. Explain any two.
(f) Explain the process of creating cause effect graph.
(g) Explain the following :
  (i) Static testing
  (ii) Model based testing and model checking
(h) Explain the fault model for predicate testing in detail.

SECTION: C

Attempt any two questions. Each question carries 15 marks 2 x 15 = 30

Q3. Discuss in detail about how to use the volume test tool.

Q4. Explain in detail the steps involved in testing the change installation process.

Q5. Define the following with suitable example:

(a) Software quality
(b) Smoke testing
(c) Syntax testing