

[55105C]
M.C.A. DEGREE EXAMINATIONS
FIFTH SEMESTER
ELECTIVE - III
Paper - V(c) (Optional) : SOFTWARE TESTING AND QUALITY
ASSURANCE
(2016-17, 2017-18 and 2018-19 Admitted Batches)

Time : 3 Hours

Maximum : 75 Marks

SECTION - A

I. Answer ALL the questions. (4×15=60)

1.
 - a) What is software testing? What are its objectives? Discuss.
 - b) Differentiate between Static testing and dynamic unit testing techniques.

(OR)

 - c) What are the tools used in unit testing? Explain.
 - d) What is software quality? Explain about different quality factors.

2.
 - a) Explain the concept of integration testing and its types.
 - b) What is domain error? What kind of tests are done for domain errors? Explain.

(OR)

 - c) What are the various sources of domains? Discuss different types of domain errors.
 - d) What is data flow testing? Explain about data flow testing criteria.

3.
 - a) Discuss in detail about the classification of the causes of software errors.
 - b) Explain about SQA architecture with a neat sketch.

(OR)

 - c) Define Software quality assurance and its objectives.
 - d) Differentiate between product operation, product revision and product transition.

4. a) What is the contribution of CASE tools to software product quality? Explain.
b) List and explain different project metrics and process metrics.

(OR)

- c) What are the CASE tools to project management? Discuss.
d) With a neat sketch, explain capability maturity model and its key process areas.

SECTION - B

II. Answer any five questions.

(5×3=15)

- a) Error, Fault and Failure.
b) What is a Test case? Explain.
c) What is the use of data flow graph?
d) Sandwich and big bang testing.
e) Explain about software project life cycle components.
f) Explain about infrastructure components of SQA.
g) What is the purpose of SPICE Project? Explain.
h) What is software Metric and software measurement? Explain.
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