

17624

15162

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) All Questions are *compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Assume suitable data, if necessary.
(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of following :

5 × 4 = 20

- Explain the static testing and dynamic testing.
- What is software testing ? State objectives of software testing.
- What is a 'test case' ? State its specification parameter.
- What is software test automation ? State types of test automation tools.
- Give the defect classification and its meaning.
- Explain Unit testing. State its additional requirements.
- Explain the performance testing and its criterias.
- What is test planning and test management ?

2. Attempt any FOUR of following :

4 × 4 = 16

- Explain the Alpha testing. State its limitations.
- State the Entry and Exit criterias for the software testing.
- Explain the Boundary Value Analysis technique used in Black Box Testing with example.
- State the different metrics types with its classification.
- State any four testing principles.
- Which types of test are the first candidates for test automation ? Why ?

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3. Attempt any FOUR of following : 4 × 4 = 16

- (a) Explain what the static white box and black box testing is required.
- (b) Explain the risk management in the test planning.
- (c) Differentiate between verification and validation.
- (d) State the contents of 'Test Summary Report' used in test reporting.
- (e) Elaborate the advantages (any four) of using the test automation tools.
- (f) Explain defect management process.

4. Attempt any TWO of following : 2 × 8 = 16

- (a) With the suitable example, explain how 'Basis Path Testing' is used to derive the code complexity for the testing.
- (b) Explain the Integration Testing and its two types. In each type, explain with example the steps of integration.
- (c) Explain the defect tracking with defect life cycle diagram and the different defect states.

5. (A) Attempt any TWO of following : 2 × 6 = 12

- (a) Explain the terms Mistake, Error, Defect, Bug, Fault and Failure in relation with software testing.
- (b) What do you mean by 'Defect Impact' ? Explain how to estimate the defect impact.
- (c) What is test deliverables & milestones ? Explain any four test deliverables.

(B) Attempt any ONE of following : 1 × 4 = 4

- (a) Explain the Regression Testing. State when the regression testing shall be done.
- (b) Write important six test cases for the 'Login Form' of the Facebook website.

6. Attempt any FOUR of following :**4 × 4 = 16**

- (a) Explain the client-server application testing.
- (b) State the different errors being found by the static and dynamic black box testing.
- (c) State the contents of standard template of a Test Plan.
- (d) Explain the 'Test Infrastructure' components with diagram.
- (e) Explain with sample example the use of Decision Tables in the black box testing.
- (f) The student passing the diploma shall be awarded class of passing as – Distinction, First Class, Second Class, Pass Class. The class will be applicable only if the student has his/her result 'pass' in all of subjects.

Write the test cases (minimum-4) for the class awarding algorithm (module).
