

entire

(2 ½ Hours)

[Total Marks: 75]

- N.B.
- 1) All questions are compulsory.
 - 2) Figures to the right indicate marks.
 - 3) Illustrations, in-depth answers and diagrams will be appreciated.
 - 4) Mixing of sub-questions is not allowed.

Q. 1 Attempt ANY FOUR from the following: (20M)

- (a) What is software testing? Discuss the need of software testing.
- (b) Explain in detail McCall's Quality factor.
- (c) Explain the role of testing in each phase of SDLC
- (d) What is the role of the software quality assurance (SQA) group?
- (e) Write a short note on the V & V model of software testing.
- (f) Differentiate between formal technical reviews and walkthroughs.

Q. 2 Attempt ANY FOUR from the following: (20M)

- (a) What is test execution and its importance?
- (b) What are the different types of software testing? Explain in short.
- (c) Explain White Box Testing and its types in brief.
- (d) Explain Cyclomatic Complexity
- (e) Explain State Transition Testing.
- (f) Differentiate between Alpha testing and Beta testing

Q. 3 Attempt ANY FOUR from the following: (20M)

- (a) Write a short note on cause -and-effect diagrams.
- (b) Define Six Sigma. Explain its basic steps.
- (c) List and explain various challenges faced by SQA
- (d) Explain the defect management process in detail with a neat diagram.
- (e) What is the format of the defect report? Explain.
- (f) Explain defect life cycle.

Q. 4 Attempt ANY FIVE from the following: (15M)

- (a) What are the various types of error?
- (b) Explain Metric lifecycle
- (c) Explain various objectives of SQA?
- (d) Define inspection in software testing with example.
- (e) Explain advantages and disadvantages of White Box Testing.
- (f) How to measure quality cost
