

2063
M.E. (Information Technology)
Second Semester
MEIT-2104: Software Quality Assurance

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) Compare verification and validation.
- b) Show the major difference between FDR and PDR.
- c) Classify the software development process.
- d) Summarize SDLC.
- e) Summarize the quality assurance activities needed for a project.
- f) Relate the factors that are affecting the intensity of quality assurance activities.
- g) Compare inspection and walkthrough.
- h) Compare testing and debugging.
- i) Compare bottom-up and top-down approach in testing.
- j) Compare big bang and incremental testing (10x1)

UNIT - I

- II. a) Which are the major phases in the waterfall model of software development?
Which phase consumes the maximum effort for developing a typical software?
- b) What do you understand by cyclomatic complexity of a program? How can it be measured? What are its applications in program development? (5,5)
- III. What are the objectives of the feasibility study phase of software development?
Explain the important activities that are carried out during the feasibility study phase of a software development project. Who carries out these activities? Mention suitable phase entry and exit criteria for this phase. (10)

P.T.O.

(2)

- IV. At which point in the software development life cycle (SDLC), does the project management, activities start? When do these end? Identify the important project management activities. (10)

UNIT - II

- V. a) What is a baseline in the context of software configuration management? Explain how a baseline can be updated to form a new baseline?
b) What is change control board (CCB) and what is its role in software configuration management. (5,5)
- VI. a) What do you understand by system testing? What are the different kinds of system testing that are usually performed on large software products?
b) What do you understand by the term integration testing? Which types of defects are uncovered during integration testing? (5,5)
- VII. Write short note on:-
a) RMMM Plan
b) Regression testing (5,5)

x-x-x