

B.TECH
(SEM VI) THEORY EXAMINATION 2017-18
SOFTWARE ENGINEERING

Time: 3 Hours

Total Marks: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x10 = 20
- a. What do you understand by software crisis?
 - b. What are different software quality attributes?
 - c. Write the difference between verification and validation.
 - d. What is Decision Tree?
 - e. Write principles of Software Design.
 - f. What is Pseudo Code? How it differs from Algorithm?
 - g. Explain Code Inspection.
 - h. What are stub and driver?
 - i. Define CASE tools.
 - j. What is Adaptive and Corrective Maintenance?

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30
- a. Explain Spiral Model? Also write it's advantages and disadvantages.
 - b. Explain CMM Model. Compare ISO and CMM.
 - c. Explain different methods of verification in detail.
 - d. What is Structure Chart? Explain different basic blocks used to build structure chart with suitable example.
 - e. What is cost analysis in context of software? Explain COCOMO Model.

SECTION C

3. Attempt any *one/two* part of the following: 10 x 1 = 10
- (a) Explain different phases of SDLC.
 - (b) Explain Iterative Enhancement Model. Write its advantages and disadvantages.
4. Attempt any *one/two* part of the following: 10 x 1 = 10
- (a) What do you understand by DFD? Explain basic blocks, which are used to build DFD with suitable example.
 - (b) What is SRS? Explain characteristics of a good SRS.
5. Attempt any *one/two* part of the following: 10 x 1 = 10
- (a) What is objective of software design? Explain different approaches for software design.
 - (b) What is Cyclomatic complexity? Write all methods, which are used to calculate the Cyclomatic complexity of a control, flow graph.

6. Attempt any *one/two* part of the following: 10 x 1 = 10

- (a) What is Regression Testing? Explain the process of test case prioritization in regression testing.
- (b) What is Integration Testing? Explain different approaches used for integration testing.

7. Attempt any *one/two* part of the following: 10 x 1 = 10

- (a) Explain various software configuration management activities.
- (b) Explain Software Risks Analysis and Management process.