Printed Pages: 02   **Sub Code: NCS602/ECS602**

Paper Id: | 1 | 1 | 0 | 6 | 0 | 2 | **Roll No.** | | | | | | | | | | |

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.