Printed Pages: 02 **Sub Code: NCS-602/ ECS-602**

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

B.TECH
(SEM VI) THEORY EXAMINATION 2018-19
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 x 10 = 20**

a. What are the characteristics of the software?
b. What are the fundamental activities of a software process?
c. What is known as SRS review? How is it conducted?
d. Mention any two non-functional requirements on software to be developed.
e. Draw the Context level DFD for the Safe home Software.
f. Distinguish between product and process metrics.
g. How do you describe software interface?
h. Distinguish between verification and validation
i. Define software re-engineering.
j. Distinguish between alpha and beta testing?

SECTION B

2. Attempt any *three* of the following: **10 x 3 = 30**

a. What are the differences between Software Engineering Process and Traditional Engineering Process?
b. Draw various levels of DFD for Library Management System.
c. Explain Software Design. Write down the various procedures for design phase.
d. What are the various testing strategies to software testing? Discuss them briefly.
e. What is Requirement? Explain different types of requirements?

SECTION C

3. Attempt any *one* part of the following: **10 x 1 = 10**

a. Explain the Classical Waterfall model with all the phases. Write down the advantages and disadvantages of this model.
b. Explain in detail Boehm's spiral model for software life cycle and discuss various activities in each phase.

4. Attempt any *one* part of the following: **10 x 1 = 10**

a. Create a SRS document for Library Management System according to IEEE standard.
b. Explain ISO 9000 series. Write down the procedures for getting a ISO certificate.

5. Attempt any *one* part of the following: **10 x 1 = 10**

a. Describe different types of coupling and cohesion. How design evaluation is performed?
b. Distinguish between Functional oriented designs and object oriented design.

6. **Attempt any *one* part of the following:** **10 x 1 = 10**
   - **a.** What is black box testing? Is it necessary to perform this? Explain various test activities.
   - **b.** Write short notes on
     i) Acceptance Testing
     ii) Regression Testing

7. **Attempt any *one* part of the following:** **10 x 1 = 10**
   - **a.** Write briefly on CASE Tools. How to estimate cost, effort and schedule/duration.
   - **b.** What are the need and category for maintenance in software maintenance.