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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.

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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.

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