

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.

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