

**Total No. of Pages : 02**

**Total No. of Questions : 07**

**B.Sc.(CS) (2013 & Onwards) (Sem.-5)**

# SOFTWARE ENGINEERING

**Subject Code : BCS-506**

**Paper ID : [72579]**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

## SECTION-A

**Q1. Answer briefly :**

- a) Define Software Engineering.
- b) What are the applications of software engineering?
- c) Differentiate between size-oriented and process-oriented metrics.
- d) What is software equation?
- e) What are the objectives of requirement analysis?
- f) What is an ER diagram?
- g) How test cases are designed?
- h) Can software be tested completely? Justify your answer.
- i) What is the difference between verification and validation?
- j) What is the difference between re-engineering and restructuring?

### SECTION-B

2. What are software process models? Elaborate the Waterfall model in detail.
3. What are the steps in planning a software project? What are the difficulties of estimating project costs? Discuss any one method of cost estimation in detail.
4. Discuss in detail the software design methodologies.
5. What are the objectives of software testing? Discuss the various testing strategies with examples.
6. What is software re-engineering? Differentiate between reverse engineering and forward engineering.
7. Define CASE. What are the various categories of CASE tools?

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