

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**BHCI (2014 & Onwards) (Sem.-4)**

# SOFTWARE ENGINEERING

**Subject Code : BMCI-404**

**Paper ID : [72808]**

**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 FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

## SECTION-A

**1. Answer briefly :**

- a) What are the characteristics of software?
- b) What are the steps in planning a software project?
- 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) What is the difference between physical and logical DFD?
- 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 the applications of software in everyday life? Discuss in brief.
3. What are the difficulties of estimating project costs? Discuss any one method of cost estimation.
4. Differentiate between White Box and Black Box techniques of designing test cases. Discuss Boundary Value Analysis in brief.
5. What is software re-engineering? Differentiate between reverse engineering and forward engineering.
6. Define CASE. What are the various categories of CASE tools?

### SECTION-C

7. What are software process models? Discuss the various process models in detail.
8. Discuss in detail the software design methodologies.
9. What are the objectives of software testing? Discuss the various testing strategies with examples.