**Roll No.** ☐☐☐☐☐☐☐☐☐☐☐☐          **Total No. of Pages : 02**

**Total No. of Questions : 07**

### BCA (2013 & Onward)     (Sem.–4)
# SOFTWARE ENGINEERING
### Subject Code : BSBC-401
### Paper ID : [B0240]

**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 has to attempt any FOUR questions.**

## SECTION-A

1.   **Answer briefly :**

   a) Write any two characteristics of Software.

   b) Define the term Metric. Write any two examples.

   c) How is size of a computer program measured?

   d) Identify the entities in a computer game for modelling the game of cricket.

   e) What is a test oracle?

   f) What is a data dictionary?

   g) What is the purpose of software testing?

   h) Create two test cases to test a program that finds calculates multiplication of two given matrices.

   i) What is a legacy system?

   j) Write any two challenges of software reengineering.

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## SECTION-B

2.   What is a software process? How is it different from a software product? Discuss any two
software process models.                                                          (2,2,6)

3.   What is the role of metrics and measurements in software development? Give examples of
atleast 3 metrics and the purpose they serve.                                     (4,6)

4.   Differentiate between :

a) Structured Analysis and Object Oriented Analysis

b) Verification and Validation

c) DFD and ER Diagram

d) Waterfall and Spiral model                                                      (10)

5.   Discuss the taxonomy of CASE tools.                                            (10)

6.   How is testing integrated with the life cycle of a software product? Is it sufficient to test a
software product only at the end of its life cycle?                                (8,2)

7.   How is cost of a software product estimated? Are these estimates always correct? If not,
why?                                                                               (8,2)