

Roll No.

Total No. of Pages : 2

Total No. of Questions : 09

**MCA (Sem.-3)**  
**SOFTWARE ENGINEERING**  
**Subject Code : MCA-402**  
**Paper ID : [B0114]**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **TEN** marks each and students has to attempt any **ONE** question from each **SECTION**.
2. **SECTION-E** is **COMPULSORY** carrying **TWENTY** marks in all.
3. Use of non-programmable **scientific calculator** is allowed.

**SECTION-A**

1. What is the Role of Metrics? Explain its measurement in detail using some suitable example.
2. Differentiate Waterfall, Spiral & Prototyping Model.

**SECTION-B**

3. What is Requirement Analysis and Specification? Explain Software Requirement Specification in detail.
4. What is Cost Estimation? Explain Different Estimation Techniques and its Model.

**SECTION-C**

Object-Oriented Analysis & Design Process.

6. Differentiate between Procedural & Object Oriented Design.

**SECTION-D**

7. What is Testing? Explain White-Box Testing.
8. How Verification is different from Validation? Discuss Integration Testing.

## **SECTION-E**

9. Write briefly :

- a) Explain the Concept of Project Management.
- b) Show Software Characteristics in detail.
- c) What is Structured Analysis?
- d) Explain Data Dictionary.
- e) Discuss the various Decomposition Techniques.
- f) What is Object Oriented Design Mythologies?
- g) What is Validation Testing?
- h) Explain Black Box Testing.
- i) Discuss the significance of COCOMO Model.
- j) What is McCabe's Cyclomatic Complexity Metric of Testing?