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

 l. 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

 5. Describe Object-Oriented Software Development and give generalized 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?