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

Total No. of Questions : 09

MCA (2012 & Onward)   (Sem.–3)
SOFTWARE ENGINEERING
Subject Code : MCA-303
Paper ID : [B1159]

Time : 3 Hrs.   **Max. Marks : 100**

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

SECTION-A

l. a) What are the principles of Software Engineering? Explain.

    b) Enlist the steps for selection of appropriate process model.

2. a) With reference to the Agile Methodology discuss SCRUM and XP.

    b) Compare and contrast the Waterfall and Spiral Software Process Model.

SECTION-B

3. Distinguish between :

    a) FAST and QFD Techniques.

    b) Architectural and Procedural designs

4. a) How do Analysis principles differ from design principles?

    b) Throw light on the SRS technique and methodology.

SECTION-C

5. a) Discuss Effort Estimation techniques. Also draw differences between the two major techniques.

    b) Briefly discuss the metrics and its types.

6. Distinguish between :

    a) COCOMO-I and COCOMO-II models

    b) Risk assessment and Risk management

SECTION-D

7. Define the role of following in software testing :

    a) Test Cases

    b) Error/Fault/Failure

8. Draw differences between :

    a) Verification and Validation Testing

    b) Reverse Engineering and Re-engineering

SECTION-E

9. Write short notes on :   (5×4=20)

    a) CASE Tools

    b) PERT/CPM Charts

    c) Integration Testing

    d) Cost Estimation Models

    e) Change Control Process