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

Total No. of Questions : 09

MCA (2015 & Onwards)   (Sem.–3)
SOFTWARE ENGINEERING AND PROJECT MANAGEMENT
Subject Code : MCA-303
M.Code : 74075

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS 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 consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. Why the role of software engineering has become important in developing modern software systems? Discuss any two software engineering principles.

2. Explain the agile methodology for developing software systems. How is the agile methodology better than the conventional software processes?

SECTION-B

3. Discuss the software design principles.

4. How is object oriented design better than procedural approach? Write the basic concepts of the object oriented approach.

SECTION-C

5. Define error, fault, and failure. Explain the testing techniques to make a software system error free.

6. How is effort defined in software industry? Explain the various effort estimation techniques.

SECTION-D

7. Define software quality. Why is it important to measure software quality? Discuss the quality metrics.

8. Write short notes on CASE tools, software reengineering.

SECTION-E

9. **Answer briefly :**

   a. What is abstraction?

   b. Define coupling.

   c. List various stages of the waterfall model.

   d. Differentiate between verification and validation.

   e. What is modularity?

   f. What is a software metric?

   g. What is a software change?

   h. Explain unit testing.

   i. What is risk exposure?

   j. What is PERT/CPM?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.