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Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 Batch) (Sem.-3)
SOFTWARE ENGINEERING AND PROJECT MANAGEMENT
Subject Code : MCA-303
Paper ID : [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 a) Define software engineering. Discuss its evolution.
b) What is significance of spiral model? Discuss its merits and demerits.
- 2 a) What are major principles of agile methodology? Explain.
b) Discuss the relationship between process model, a process specification and a process for project.

SECTION-B

- 3 What is need of requirement analysis? Explain the role of different requirement elicitation techniques.
- 4 Discuss the role of abstraction, refinement and modularity in software design. Also discuss the design heuristics for effective modularity.

SECTION-C

- 5 Explain the following :
 - a) COCOMO I and II
 - b) Principles of software testing

- 6 Differentiate the following :
- a) Unit and system testing
 - b) PERT and CPM

SECTION-D

- 7 What are various software quality parameters? Explain the role of quality metrics and ISO9126 standard in software quality management.
- 8 Explain the following :
- a) Need and principle of web engineering
 - b) Change control process

SECTION-E

9 Write briefly :

1. Write merits and demerits of prototyping.
2. List various features of object oriented design.
3. What are merits and demerits of white box testing?
4. How testing is different from debugging?
5. Define reverse engineering.
6. What is need of re-engineering?
7. What is significance of risk assessment probability matrix?
8. List various features of software project planning.
9. What is need of FP and LOC metrics?
10. List merits and demerits of verification and validation.