

Roll No.

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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.