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Total No. of Pages : 02

Total No. of Questions : 09

MCA (2013 and 2014 Batch) (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

1. a. What are the principles of Software Engineering? Explain.
b. What is Software crisis? Discuss the reason behind this crisis.
2. a. Nail out the technique to select appropriate Software process model.
b. What is **AGILITY** in software development? Explain.

SECTION-B

3. a. Explain the contents of SRS documents by taking example of Windows XP.
b. Discuss various requirement elicitation techniques.
4. a. Explain various design principles and concepts of software product.
b. What are the issues of architectural design? Compare them with procedural design.

SECTION-C

5. a. Explain the benefits of FP over LOC as defined by IFPUG.
b. Discuss the contribution of PERT and CPM in estimation process.

6. a. Differentiate between Error, Faults and Failure by taking some example.
- b. Explain verification and validation testing in detail.

SECTION-D

7. a. What are various quality measures suggested by ISO-9126?
- b. Discuss software quality levels of Capability Maturity Model.
8. a. What is change control? How CASE tool helps in change control?
- b. Differentiate between Reverse Engineering and Re-Engineering.

SECTION-E

9. Write briefly :

- a. What is software scope?
- b. What is baseline in Software Engineering?
- c. Briefly define top-down and bottom-up design model.
- d. What is black-box and white-box testing?
- e. What is the main objective of Win-Win Spiral Model?
- f. What are the two merits of incremental model?
- g. Name the Difficulties in Elicitations.
- h. Define SQA Plan.
- i. What is Software Architecture?
- j. What are the two drawbacks of spiral model?