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Total No. of Pages : 02

Total No. of Questions : 15

MBA (2014 to 2017) (Sem.-3)

SOFTWARE ENGINEERING

Subject Code : MBA-983

Paper ID : [C1183]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SIX questions carrying FIVE marks each and students has to attempt any FOUR questions.
2. SECTIONS-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying EIGHT marks each and student has to attempt any ONE question from each Subsection.
3. SECTION-C is COMPULSORY and consists of ONE Case Study carrying EIGHT marks.

SECTION-A

1. What are the limitations of Prototype model?
2. Discuss the applications of Spiral Model.
3. Discuss the applications of ER Diagrams in Software Engineering.
4. Discuss various symbols used in Data Flow Diagrams.
5. What is Coupling and Object Oriented Design?
6. What are the different types of data processing?

SECTION-B**UNIT-I**

7. In the present era of technology, discuss the applications of Software Engineering in the current business scenario. (8)
8. What is meant by Software Requirement Specification (SRS)? Discuss in detail various components of SRS. (8)

UNIT-II

9. Why there is a risk in a Software Project? Discuss the various methods to estimate risk associated with a Software Project. (8)
10. Write detailed notes on :
 - a. On-site implementation and maintenance. (4)
 - b. Features of COCOMO Model. (4)

UNIT-III

11. Discuss the objectives and principles of Software Design. (8)
12. Discuss various design methodologies used in software design. (8)

UNIT-IV

13. Discuss in detail the difference between White Box and Black Box testing methods. (8)
14. Write detailed notes on :
 - a. Significance of Verification. (4)
 - b. Validation testing. (4)

SECTION-C**15. Case Study :**

A firm tried to develop a satellite based communication between mobile handsets. The system would work through six dozens of satellites. This would enable communication in remote areas like Antarctica and Arctic. The main challenges they faced were: enormous risks, no prior experienced staff or published material on the subject, completely new area of development, required millions of lines of code to be written, unclear user need and system requirements. To tackle this, the firm hired staff who had worked in similar areas before, allowed them to gather and discuss their views and opinions. They decided to skip through lengthy design process, and instead decided to start software development early. This way they could set more realistic budgets and cope with changes required in software as needs become clearer. However, the risks assessment was quite complex as it required expert assessment and time spent on risk assessment, planning and bringing about changes in design was considerably high.

Question :

- a. Which software development model is being implemented here? (3)
- b. Which software development model will best suit this situation according to you? (2)
- c. Is it feasible always to skip the software design phase? Illustrate situations where it becomes infeasible. (3)