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**MCA (Sem. - 3<sup>rd</sup>)**

**SOFTWARE ENGINEERING**

**SUBJECT CODE : MCA - 303 (2012 Batch)**

**Paper ID : [B1159]**

**Time : 03 Hours**

**Maximum Marks : 100**

**Instruction to Candidates:**

- 1) Attempt one question each from Section A, B, C, D
- 2) Section E is compulsory.
- 3) All questions carry equal marks.

**Section - A**

- Q1)** a) Explain the layered approach used in Software Engineering.  
b) What is the difference between software development and software engineering?
- Q2)** a) Explain the process model that combines the elements of waterfall and iterative fashion  
b) Explain Extreme Programming (XP) giving the process and technique used in each phase of the process.

**Section - B**

- Q3)** What do you mean by structured analysis? Explain in detail the tools used for analysis of any Software system.
- Q4)** What is software design? What is its need? How design of software related to evaluation of software? Categorize software design?

**Section - C**

- Q5)** Explain the need for software measures and describe various metrics.
- Q6)** What is black box testing? Is it necessary to perform this? What are test cases and explain various test activities?

## **Section - D**

- Q7)** a) Explain the standards associated with software quality?  
b) What do you mean by software quality? What is its key importance?  
Define the role of quality metrics in assuring software quality?
- Q8)** What is software re-engineering? What is the role of reverse engineering in process of re-engineering?

## **Section - E**

**Q9)**

- a) What are applications of waterfall model?
- b) Why S/W does not wear out?
- c) What problems are likely to arise if two modules have high coupling?
- d) Explain the tasks involved in Requirements Engineering.
- e) What is stress Testing?
- f) What is Delphi cost estimation technique?
- g) Define the terms fault and failure?
- h) Define software risk. Explain in brief the types of software risks.
- i) How software quality is assure?
- j) What is CASE?

