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Total No. of Questions: 09]

[Total No. of Pages: 02

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

## SOFTWARE ENGINEERING

**SUBJECT CODE: MCA-402** 

Paper ID: [B0114]

[Note: Please fill subject code and paper ID on OMR]

Time: 03 Hours

Maximum Marks: 60

## **Instruction to Candidates:**

- 1) Attempt any one question from each Sections A, B, C & D.
- 2) Section-E is Compulsory.
- 3) Use of Non-Programmable Scientific Calculator is allowed.

## Section - A

 $(1 \times 10 = 10)$ 

- Q1) Discuss in detail the components and desired characteristics with respect to software process.
- **Q2)** Discuss in detail strengths and weaknesses of minimum three software process models.

## Section - B

 $(1 \times 10 = 10)$ 

- Q3) Discuss in detail cost estimation models.
- Q4) Explain in detail problem analysis and requirements specification.

## Section - C

 $(1 \times 10 = 10)$ 

- Q5) Compare various design methodologies used in object-oriented design.
- **Q6)** What is software design? What is its need? How design of software related to evaluation of software? Categorize software design.

#### Section - D

 $(1 \times 10 = 10)$ 

- (97) What are various testing strategies? Discuss them.
- Q8) Write note on white box and black box testing.

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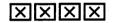
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## Section - E

 $(10 \times 2 = 20)$ 

Q9)

- a) What are applications of waterfall model?
- b) What problems are likely to arise if two modules have high coupling?
- c) What are the advantages of developing the prototype of a system?
- d) What is software sizing?
- e) What is risk?
- f) What is the role of data dictionary?
- g) Can we have inheritance without polymorphism? Explain.
- h) Will exhaustive testing (even if possible for very small programs) guarantee that the program is 100% correct? Justify your answer.
- i) Define the terms fault and failure.
- j) What is the need of metrics in software?



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