# MSCCS-09/MSCCS-203/MCA-203

## June - Examination 2018

## MSCCS-Final/MCA-IInd Year Examination

## Software Engineering

#### Paper - MSCCS-09/MSCCS-203/MCA-203

Time : 3 Hours ]

[ Max. Marks :- 100

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

#### Section - A

 $10 \times 2 = 20$ 

(Very Short Answer Questions)

- **Note:** Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.
- 1) (i) List the aims of Software Engineering.
  - (ii) What is Software Reliablity?
  - (iii) What is Checkpointing?
  - (iv) List the issues that affect code quality.
  - (v) What is Software Re-engineering?
  - (vi) Give the examples of size-oriented metrics used in software measurement.
  - (vii) What is the aim of Feasibility Study in Software Engineering?

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(viii) Name different symbols used in DFD with its meaning.

- (ix) What is Coupling?
- (x) List the four phases of Spiral Model.

#### Section - B

 $4 \times 10 = 40$ 

(Short Answer Questions)

- **Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.
- 2) What is Software Product? Explain the qualities of software product in detail.
- 3) How to identify Software Requirements? Differentiate between functional Requirements and Non-Functional Requirements.
- 4) Distinguish between Black Box Testing and White Box Testing.
- 5) What do you mean by Software Evolution? Also explain the Eight Lehman's laws that are used to identify a set of behaviours in the evolution of proprietary software.
- 6) Write short note on COCOMO Model.
- 7) What is RMMM? Discuss its role in project management.
- 8) Discuss important factors to be considered in user interface design. Also discuss User interface Design principles in details.
- 9) What is SRS? Explain the characteristics of a Software Requirements Specification.

#### Section - C

(Long Answer Questions)

- **Note:** Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.
- 10) What are the relational ship between Software Analysis and Software Design? Discuss various tools and diagramming aids used for design.
- 11) Explain waterfall model. What are the advantages and disadvantages?
- 12) What do you mean by Test Case? Describe various techniques that can be used to select test cases in functional testing with suitable examples.
- 13) What is the role of CMMI in process improvement? Explain different levels of the CMM in detail.