MCA-17

June - Examination 2016

MCA IIIrd Year Examination

Software Engineering

Paper - MCA-17

Time : 3 Hours]   **[Max. Marks :- 80**

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

Section - A $8 \times 2 = 16$

(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)   What are functional requirements?

     (ii)   List the reasons of software crises.

     (iii)   Write any three s/w quality attributes.

     (iv)   Differentiate an error and a bug.

     (v)   What is validation?

     (vi)   Define 5DS.

     (vii)   Write a full form of COCOMO.

     (viii)   Differentiate program and a software.

Section - B $4 \times 8 = 32$

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 8 marks.

2)   Distinguish between DFD and flow chart.

3)   Enumerate the different types of coupling that might exist between two modules.

4)   Define Software Configuration Management (SCM) and explain the activities of SCM.

5)   Explain various SDLC models in detail.

6)   What do you mean by International Standards? Differentiate between ISO-9126 and ISO-12207.

7)   Describe COCOMO model in detail for cost estimation.

8)   What do you mean by cyclomatic complexity? How it is useful in generating test cases?

9)   What do you understand by the term change control and version control? Explain by giving example.

Section - C $2 \times 16 = 32$

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 16 marks.

10) Discuss the significance of using prototyping for reusable components and explain the problems, which may arise in this situation.

11) Explain the different types of testing methods with the help of suitable example.

12) Explain in detail the various techniques for structural system design.

13) Write a note on followings:

    (i)   Software Risk Analysis and Management.

    (ii) Software Maintenance.

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