S.No. : 39 MCA 2501

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 21251 Roll No.

MCA Examination 2018-2019

(Fifth Semester)

SOFTWARE ENGINEERING

Time : Three Hours] *[Maximum Marks : 60*

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : $8 \times 1 = 8$

   (a) What is software Engineering?

   (b) What is SRS?

   (c) What is the full form of 'SDLC'?

   (d) Mention the formula to calculate cyclomatic complexity of a program?

   (e) What is software maintenance?

   (f) What is the other name of white box testing?

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(g) What is software Re-engineering?

(h) What is the full form of 'CASE'?

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$

(a) Describe the characteristics of a good SRS?

(b) What do you mean by a good software design? Also discuss the criteria for a software design to enhance the quality of a software?

(c) What categories of errors are traceable using white Box testing? Explain the white-box testing in detail.

(d) Justify the statement 'Software maintenance is costlier'.

SECTION –C

Note:- Attempt all questions : $5 \times 8 = 40$

3. Attempt any two parts of the following :

(a) What is feasbility study? How many types of feasbility study in software Engineering? Explain any two?

(b) What is coupling and cohesion? Also explain different types of coupling and cohesion.

(c) What is the difference between Black Box and White-Box testing?

4. Attempt any two parts of the following :

(a) Explain COCOMO model for cost estimation?

(b) What are the important concepts of object oriented software design and how it is different from function oriented?

(c) Why are three different levels of testing unit testing, integration testing and system testing necessary? Discuss the main purpose of each of these testing?

5. Attempt any two parts of the following :

(a) Explain water fall model with the help of suitable diagram?

(b) What is Software Quality Assurance? Also discuss the different levels of Software Quality Assurance.

(c) What is cyclomatic complexity? How it is calculated? Explain the concept of control flow graph.

6. Attempt any two parts of the following :

(a) Explain how debugging difference from testing?

(b) Write down the various available Maturity levels in capability maturity model available for a software company?

(c) Explain software configuration Management activities in details?

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