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RC-5722

M. C. A. (Sem. III) Examination

March / April - 2017

303 : Software Engineering

Time : **3** Hours] [Total Marks : **70**

Instruction :

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. C. A. (SEM. 3)**

Name of the Subject :

☛ **303 : SOFTWARE ENGINEERING**

☛ Subject Code No. : **5 7 2 2** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

1 Attempt the following (any **seven**) in brief : **14**

(1) What are the limitations of evolutionary process model ? Is there any other model which overcomes these limitations ?

(2) What is SQA ? Also narrate its importance.

(3) Which are the measures for software reliability and availability ?

(4) What is defect amplification model ? How is it useful ?

(5) What is FTR ? How are they useful during project reviews ?

(6) Explain using diagram, transformation of analysis model to design model.

(7) Explain the elements of analysis models and modelling approaches.

(8) List its advantages and limitations of SPIRAL model.

(9) Explain the terms measures, metrics and indicators.

2 Explain in detail, the following : 14

(1) Which are the agile process ? List various agile software process models. Explain any one of them in detail. 7

OR

(1) Explain SCRUM Model.

(2) Which are the software design concepts ? Discuss any three of them in detail. 7

3 Attempt the following : 14

(a) Which are the various software estimation techniques ? Explain any one in detail. 7

OR

(a) Discuss empirical estimation model.

(b) Explain and list the differences between size and function oriented metrics. 7

4 Attempt any **two** from the following : 14

(a) What is Cyclomatic Complexity ? Explain using an example, various ways to derive Cyclomatic Complexity and its importance.

(b) Explain Unit and Integration testing techniques. Also, show their comparison.

(c) Explain Equivalence partitioning and Boundary Value analysis models.

5 Attempt any **two** from the following : 14

(1) Write a note on 4 P's of project management.

(2) Write a note on software project scheduling.

(3) Which are the differences between relative and proactive risks ? Also discuss the various categories of risks.
