1E9102

Roll No. : _____ Total Printed Pages : 2

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M. Tech. (Sem. I) (Back) Examination, February - 2010
Computer Science & Engineering
(1MCS2 Software Systems Design)

Time : **3** Hours] [Total Marks : **100**
[Min. Passing Marks :

*Attempt any **five** questions. Marks of questions are indicated against each question. Draw neat and comprehensive sketches wherever necessary to clearly illustrate your answer. Assume missing data suitably if any specify the same.*

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. Nil 2. Nil

1 (a) Explain and compare various architectural models that may be used to develop a software.

(b) Giving the examples explain how the software delivery is a challenge.

10×2=20

2 (a) Explain the structure of software requirement document proposed by IEEE.

(b) Differentiate between functional and non-functional requirement by giving examples.

10×2=20

3 (a) Explain the verification and validation of software. What are the differences between varification and validation?

(b) What is software inspection? What are the advantages of it ?

10+10=20

4 (a) What are the advantages of developing a prototyping? What are the problems involved?

(b) What are two important phases of testing and explain them. What is regression testing?

10+10=20

5 (a) Explain usability of software matrix in software design.

(b) Explain and differentiate the white box and black box testing.

10+10=20

6 (a) What do you mean by terms cohension and coupling in the context of software design? How are these concepts useful in arriving at a good design of a system?

(b) Describe three princial activities involved in software quality management.

10+10=20

7 (a) Using a schematic diagram and suitable example show the order in which the following are estimated in the COCOMO estimation technique : cost, effort, duration, size.

(b) What do you mean risk management? Explain how to select the best risk reduction technique when there are many ways of reducing risk.

10+10=20

8 (a) Explain the usability of UML modelling in large software design.

(b) Give a complete UML design for social networking site like orkut or facebook. Explain all diagram of UML modelling as the development document for this site.

5+15=20
