MCA (Revised)

Term-End Examination

June, 2013

MCS-034 : SOFTWARE ENGINEERING

Time : 3 hours *Maximum Marks : 100*
(Weightage : 75%)

Note : *Question No. 1 is* **Compulsory**. *Attempt any three questions from the rest.*

1. (a) Describe Putnam's model of cost-estimation for s/w development. **10**

   (b) With reference to Requirements **10** Engineering, explain the following :

       (i) Types of requirements

       (ii) Requirements gathering tools

   (c) Define CASE tools. Explain any two **10** categories of CASE tools.

   (d) Define the term Risk. Explain the different **10** phases of Risk Management.

2. An university wants to automate the registration, scheduling of classes and attandance system of the students.

The main objectives of the system are :

(a) Online Enquiry

(b) Online registration

(c) To view the scheduling of classes, online.

(d) Availability of online records of teachers and students.

(e) Online view of the attendance by the students.

(f) Practicals-batch scheduling etc.

In the above-mentioned objectives :

(i) Design DFD's (upto level - 2). 4

(ii) Prepare SRS document. 5

(iii) Design ER-Diagram. 3

(iv) Draw project scheduling chart. 3

(v) Specify the s/w development life cycle model for the given specifications. 5

3. (a) With the help of a neat diagram, explain the process of software Re-engineering. 10

(b) Describe the s/w configuration management process. 10

4. (a) Explain product matrics and process matrics with the help of suitable examples. **10**

   (b) Write a suitable example program segment and illustrate the Boundary-Value Analysis testing strategy. **10**

5. Write short notes on : **20**

   (a) Version control in s/w development

   (b) Cleanroom s/w engineering

   (c) Software quality and CASE tools.

   (d) Software reliability.

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