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MCS-034

M. C. A. (REVISED)
Term-End Examination
June, 2019

MCS-034 : SOFTWARE ENGINEERING

Time : 3 Hours

Maximum Marks : 100

(Weightage : 75%)

Note : Q. No. 1 is compulsory. Attempt any three questions from the rest.

1. (a) You are required to design a web-based software for an online bookstore, CDs and some computer accessories. It should allow to take order online, process and should deliver to the given address. For the above mentioned system :
 - (i) Prepare SRS document. 5
 - (ii) Design and draw DFD's upto 2 levels. 5
 - (iii) Design a complete ER diagram with all the conventions. 5
 - (iv) Construct a structure chart for this system. 5

- (b) Discuss the significance of modularity design in the overall software development. Also, describe the incremental, sequential parallel classification of module design. 10
- (c) Define Software Reuse. Mention the types of Software-reuse. Also, describe the Component-Reuse based software engineering process with the help of a suitable example. 10
2. (a) Explain the Statistical and Putman's models with an example for each. 10
- (b) Explain the process of developing wireless application using J2ME. 10
3. (a) Describe the characteristics of the following CASE tool categories : 10
- (i) Upper CASE tools
 - (ii) Lower CASE tools
 - (iii) Integrated CASE tools
- (b) In context to software change management, define the term *Baseline*. Design the baseline for design specifications for any example project. 10
4. (a) With the help of a neat diagram, explain various components of "Risk Manager Tool". 10

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- (b) With reference to Matrics, explain the following : 10
- (i) Product metrics
 - (ii) Process metrics
- Also, mention the types of product and process metrics.
5. (a) Define Scheduling. Explain GANTT and PERT charts with relevant example for each. 10
- (b) Describe briefly the following : $5 \times 2 = 10$
- (i) Version control
 - (ii) Cyclometric complexity