

**MASTER OF COMPUTER APPLICATIONS
MCA (Revised)**

Term-End Examination

December, 2021

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) What is a DFD ? Draw DFDs up to 3rd level for a “Railway Reservation System”. Make necessary assumptions. 10
- (b) What is a Data Dictionary ? Explain with an example. 10
- (c) Explain Cleanroom Software Engineering with the help of a diagram. 10
- (d) Explain any two Project Scheduling techniques with examples. 10
2. (a) Explain Software Project estimation in detail with the help of a diagram. 10
- (b) Explain different techniques for Requirements Gathering. 10

3. (a) Explain the process of developing wireless application using J2ME. 10
- (b) “Spiral Model combines the strength of various other Software Development models.” Justify the statement. Also explain the primary activities in this model. For what kind of projects can we use this model ? 10
4. (a) In a modular design, explain the functionality of Coupling and Cohesion. Write the disadvantages of low cohesion and high coupling. 10
- (b) With the help of a suitable example program, explain the “Boundary Value Analysis” testing strategy by deriving boundary conditions. 10
5. (a) Construct DFDs up to level 3 for a “Hospital Management System”. Make necessary assumptions. 10
- (b) Explain the Software Change Request format, Engineering Change Order format and Software Change Report format. 10
-