

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

Term-End Examination

December, 2025

MCS-034 : SOFTWARE ENGINEERING

Time : 3 Hours

Maximum Marks : 100

Weightage : 70%

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

1. (a) What are the different levels of capability maturity model ? Explain each of the levels briefly. 10
- (b) What are the steps involved in the process of debugging ? Explain these steps. 10
- (c) Define the term 'Software Quality'. Also, discuss briefly the attributes of software quality. 10

- (d) Explain the roles and responsibilities of the following w.r.t. web-applications : 10
- (i) Web Master
 - (ii) Application Support Team
 - (iii) Content Development Team
 - (iv) Web Publisher
2. (a) What is the need of Interface design ? Explain the major elements of a good Interface design. 10
- (b) What are project-metrics ? Explain different types of project metrics with an example for each. 10
3. (a) What is prototyping model ? Explain the problems and advantages of prototyping model in detail. 10
- (b) Compare and contrast version control with change control. 10
4. (a) Draw Level-0, Level-1 and Level-2 DFDs for Grade-Card Generation System. Make and mention the necessary assumptions. 10
- (b) What is meant by 'Software Reengineering' ? Explain the phases of Software Reengineering Life Cycle. 10

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5. (a) What is Cyclomatic Complexity ? How is it computed ? Calculate cyclomatic complexity for the program to find the greatest of three numbers. 10
- (b) What is Risk Management ? Explain any *one* technique of the Risk Management. 10

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