

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

Term-End Examination

June, 2026

MCS-034 : SOFTWARE ENGINEERING

Time : 3 Hours

Maximum Marks : 100

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt any **three** questions from
the rest.*

1. (a) Explain the waterfall model and state its merit and demerits. 10
- (b) Draw level-0, level-1 and level-2 Data Flow Diagram (DFD) for an online railway reservation system. 10
- (c) Discuss the issues involved in the management of a web-based project. 10

- (d) Explain the various levels in SEI-CMM. 10
2. (a) Define the term 'Risk'. Explain the different phases of Risk management. 10
- (b) What is cleanroom software engineering ? How is it different from conventional software engineering ? 10
3. (a) Differentiate between Auditing and Formal Technical Review. Mention a check list for S/W configuration Audit. Also, describe status reporting and its contents. 10
- (b) Describe the COCOMO model in detail with an example for software cost estimation. 10
4. (a) Define 'software quality' and 'software reliability'. Is it possible to achieve both ? Justify your answer. 10
- (b) What are CASE tools ? List the features of any *two* CASE tools. 10

5. (a) Explain the following testing techniques :
10
- (i) Unit testing
 - (ii) Stress testing
- (b) Define 'coupling' and 'cohesion'. Explain the relation between them. Also give an example of a highly cohesive and loosely coupled system. 10

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