

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

Term-End Examination

June, 2025

MCS-034 : SOFTWARE ENGINEERING

Time : 3 Hours

Maximum Marks : 100

Weightage : 75%

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

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

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1. (a) How does software product differ from other engineering product ? Explain with the help of an suitable example. 10
 - (b) What is Data Flow Diagram (DFD) ? What factors should be considered while making DFDs ? Draw Level 0 and Level 1 DFDs of a production management system. Make necessary assumptions. 10

- (c) Discuss white box testing with the help of a suitable example. 10
 - (d) What is a CASE tool and what are its need ? Discuss the important characteristics of CASE tools. 10
2. (a) Describe the features of Java Device Test Suite (JDTS) and its applications. 10
- (b) What is a data dictionary ? Explain with an example. 10
3. (a) How is software configuration management done in software development process ? Explain. 10
- (b) Describe the use of COCOMO model in detail with an example for software cost estimation. 10
4. (a) Explain any *two* project scheduling techniques with an example for each. 10

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- (b) Define 'Software Quality' and 'Software Reliability'. Is it possible to achieve both ? Justify your answer. 10
5. (a) Explain the concept of cleanroom software engineering. 10
- (b) Elaborate the rules for human-computer interface design. 10

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