

Software Engineering and Project Management

3 hours

MCA-303**Max Marks : 100****Note:**

- 1) Attempt one question from each section
- 2) Section E is compulsory

Section A

- 1 (a) What do you mean by Software Engineering? Explain the principles of Software Engineering. 10
(b) What do you mean by Software Development and Software Engineering? Also explain the difference between them. 10
- 2 (a) What are the projects best suited for agile methodology and why? 10
(b) Difference between component based model and spiral model. 10

Section B

- 3 (a) Explain Cohesion and Coupling. Also explain the purpose of modular design. 10
(b) Relate the data flow and control flow diagram with an example case study of your choice. 10
- 4 (a) Explain various steps involved in SRS. 10
(b) Give a SRS for developing a software for hotel management. 10

Section C

- 5 (a) Explain basic path testing and cyclomatic complexity in detail. 10
(b) Explain project scheduling and tracking in context of software development project 10
- 6 (a) What do you mean by metrics? Explain the process and project metrics. 10
(b) Distinguish between white box and black box testing. 10

Section D

- 7 (a) Explain the various levels of quality assurance in software engineering with reference to different parameters of quality. 10
(b) Explain software quality factors and importance of software quality. 10
- 8 (a) Explain software control management and change control management in detail. 10
(b) Explain CMM along with level and activities with each level. 10

Section E

- 9 (a) Define Requirement Engineering 2
(b) Mention some of the process activities of Requirement Elicitation & analysis. 2
(c) What is the use of Architectural design? 2
(d) Mention some of the Design principles. 2
(e) Why testing is important with respect to software? 2
(f) Justify the term "Software is engineered" 2
(g) What is regression testing? 2
(h) What is CASE? 2
(i) What is architectural transformation? 2
(j) What is software re-engineering? 2