

9. (a) What is Software Quality Assurance (SQA) ?
What are the goals of SQA ? What are the major
SQA activities ? Explain in detail. 8
- (b) What is Software Configuration Management ?
Discuss the importance of software configuration
management in detail. 8
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Roll No.

67173

**MCA 4th Semester (Non CBCS Scheme)
Examination – May, 2019**

SOFTWARE ENGINEERING

Paper : MCA-403

Time : Three Hours] [Maximum Marks : 80

*Before answering the questions, candidates should ensure that they
have been supplied the correct and complete question paper. No
complaint in this regard, will be entertained after examination.*

*Note : Attempt any five questions at least one from each
unit. Question number 1 is compulsory. All
questions carry equal marks.*

1. (a) What is software crisis ? Discuss the main reason
of software crisis. 2
- (b) What is Process iteration ? Explain. 2
- (c) What do you mean by software requirement
specification document ? Explain. 2
- (d) What do you mean by project metrics ? Explain. 2
- (e) What do you mean by debugging tools ?
Explain. 2

- (f) What do you mean by software documentation ? Explain. 2
- (g) What is software evolution ? Explain. 2
- (h) What do you mean by validation and verification ? 2

UNIT – I

- 2. (a) What is Software Engineering ? What are the essential characteristics and challenges of software engineering ? Explain. 8
- (b) What do you understand by project scheduling ? Also enumerate the activities involved in project scheduling. 8
- 3. (a) What do you understand by Software Process Models ? Compare waterfall model and spiral model of Software Development. 8
- (b) Explain elaborately the various strategies and steps involved in risk management. 8

UNIT – II

- 4. (a) What is Software Requirements Engineering ? Discuss the various requirements engineering processes in detail. 8
- (b) What are software metrics ? Discuss the effect of software metrics on software productivity. 8
- 5. (a) What is Software requirements ? Discuss different types of requirements in detail. 8

- (b) What do you mean by Software Project Estimation models ? Explain COCOMO model in detail. 8

UNIT – III

- 6. (a) What is software design Process ? State its relevance and also discuss the importance of software design Process in software engineering. 8
- (b) What is Software Reliability ? How does it contribute to software quality ? Explain. 8
- 7. (a) What is software testing ? How is testing important in software life cycle ? Discuss the objectives of software testing. 8
- (b) What is computer aided software engineering (CASE) ? What are various types of CASE tools ? Explain. 8

UNIT – IV

- 8. (a) What is Software Maintenance ? What is the importance of Software Maintenance ? What are various type of software maintenance ? Discuss in detail. 8
- (b) What is Software Reuse ? Illustrate the reasons for software reuse. Also discuss the benefits of Software Reuse. 8