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

_____

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 ? Diseuss in detail. 8

(b) What is Software Reuse ? Illustrate the reasons for software reuse. Also discuss the benefits of Software Reuse. 8