

2153003

Roll No.

(b) What is meant by Software Testing ?
How is testing important in software lifecycle ? Discuss the objectives of software testing. [8]

7. Differentiate between the following:

- (a) Good design and Bad design [5]
- (b) Module Coupling and Cohesion [6]
- (c) Testing and Debugging [5]

UNIT-IV

8. (a) What is Software Quality Assurance (SQA) ? What are the main activities in SQA plan ? How are these ensured ? Justify. [8]

(b) What is software maintenance ? What are its types ? Illustrate their importance and elaborate. [8]

9. Explain the following:

- (a) Software Configuration Management [8]
- (b) Software Documentation. [8]

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M.C.A. 4th Sem. (with new notes)

M.M. 80

Examination-May, 2017

SOFTWARE ENGINEERING (NEW)

Paper-MCA-403

Time : 3 hours

Max. 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 the examination.

Note : Attempt **five** questions in all by selecting Q. No. 1 (which is **compulsory**) and **one** question each from every Unit. All questions carry equal marks.

1. Attempt all questions : [8×2 = 16]

(a) What is Software Process? What are the characteristics of software process ? Explain.

- (b) What are the different types of requirements ? State their relevance.
- (c) What is the term 'software evolution' ? Comment.
- (d) What are Information Flow Metrics ? How are these helpful ? Discuss.
- (e) What are the ways of minimizing software maintenance cost ?
- (f) What are code walkthroughs ? Outline their relevance.
- (g) What are specification languages ? What are their objectives ? Discuss.
- (h) What is 'Software Retirement' ? Elaborate the term.

UNIT-I

- 2. (a) What is Software Engineering ? Discuss the principles of software engineering as well as the essential characteristics of a well engineered software product. [8]
- (b) What are Software Risks ? What are the activities related to risk management ? Discuss. [8]

- 3. (a) What are Software Lifecycle Models ? Discuss the essence of software lifecycle models. [7]
- (b) What is Software Project Planning ? Outline the goals of software project planning as well as the activities involved in software project planning. [9]

UNIT-II

- 4. (a) What are Software Project Estimation Models ? How are these relevant in software development ? Justify. [8]
- (b) What is SRS document ? How is it populated ? State the relevance of specification languages. [8]
- 5. Differentiate between the following:
 - (a) Function Points and Token Metrics [6]
 - (b) McCabe's Cyclomatic and Knots Metrics [5]
 - (c) Functional and Non-functional requirements [5]

UNIT-III

- 6. (a) What are CASE tools ? Discuss various types of CASE tools indicating their respective usefulness. [8]