

Roll No. ....

**67173**

**M.C.A. 4th Semester  
(with new notes)**

**Examination-May, 2015**

**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.


[8×2=16]

1. (a) What is regression testing? Discuss its significance.
- (b) What do you mean by programming style? What is its relevance? Discuss.
- (c) What is modelling? Discuss its essence in software design along with justification.

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- (d) What is modelling? Discuss its essence in software design along with justification.
- (e) What is software process? What are the characteristics of software process? Explain.
- (f) What are different types of requirements? State their relevance.
- (g) What is Certification? What are requirements for Certification? Discuss.
- (h) What are the qualities of a good SRS document?

### UNIT-I

2. (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]
3. (a) What do you understand by 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]

### UNIT-II

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

### UNIT-III

6. (a) What is software testing? How is testing important in software lifecycle? Discuss the objectives of software testing. [8]
- (b) What are CASE tools? Discuss various types of CASE tools indicating their respective usefulness. [8]

7. Differentiate between the following :
- (a) Module Coupling and Cohesion. [6]
  - (b) Good design and Bad design. [5]
  - (c) Testing and Debugging. [5]

#### UNIT-IV

8. (a) What is software maintenance? What are its types? Illustrate their relevance. [8]
- (b) What is Software Quality Assurance (SQA)? What are the main activities in SQA plan? How are these ensured? Justify. [8]
9. Explain the following :
- (a) Software Configuration Management. [8]
  - (b) Software Documentation. [8]