Roll No. .....

67173

M.C.A. 4th Sem.
(with new notes - M.M. 80.)
Examination–May, 2016
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 from every unit. All questions carry equal marks.

1. (a) What is software retirement ? Elaborate the term. [8×2=16]

(b) What are formal technical reviews? Outline their relevance.

(c) What is Certification? What are requirements for Certification? Discuss.

(d) What is data dictionary? Discuss its relevance.

(e) What is modelling? Discuss its essence in software design along with justification.

(f) What do you mean by requirements management? Illustrate.

(g) What is debugging? Is it different from testing? Justify your answer.

(h) What is the term 'software evolution'? Comment.

Unit-I

2. (a) What do you mean by software risk management? Discuss the activities involved in this process. [8]

(b) What is software engineering? Discuss the principles of software engineering as well as the essential characteristics of a well engineered software product. [8]

3. Explain the following :

(a) Win-Win Spiral lifecycle model [8]

(b) Project Scheduling Techniques [8]

Unit-II

4. (a) What do you understand by software metrics? Why are these needed? Also discuss the uses of software metrics. [8]

(b) What are Software Requirement Specifications (SRS)? How is SRS document populated? Discuss. [8]

5. (a) What are COCOMO models? Justify their relevance in software development. [8]

(b) What is requirements engineering? Why is it gaining importance? Discuss different types of requirements and their significance towards software quality. [8]

Unit-III

6. (a) What is software design? Discuss the design principles in detail. [8]

(b) How are software faults and failures inter-related? What are different types of software failure? Also outline the characteristics of fault-free software. [8]

7. (a) Differentiate between the following : [8]

(i) Black-box and White-box testing

(ii) Unit testing and Integration Testing

(b) What is meant by software reliability? What characteristics of software make software reliability different from hardware reliability? Discuss. [8]

Unit-IV

8. (a) What do you understand by software quality? What are important software quality attributes? Explain. [7]

(b) What is software maintenance? What are its types? Illustrate their relevance. [9]

9. Explain the following :

(a) SQA—Plan and Activities [8]

(b) Software Documentation [8]