

Roll No.

Total Pages : 03

BCA/M-19

19017

SOFTWARE ENGINEERING

BCA-205

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

(Compulsory Question)

1. (a) What is Software Crisis ? Discuss the causes of it. 4
- (b) Discuss the relative advantages of formal and informal requirements specifications. 4
- (c) What is PERT Chart ? Discuss. 4
- (d) What is Beta Besting ? 4

Unit I

2. Discuss the spiral model of software development. What are its advantages over prototype model ? 16
3. (a) What is a Software Process ? Discuss the desired characteristics of software process. 8

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- (b) Why do we need metrics in software engineering ?
List few metrics along with their role. 8

Unit II

4. (a) What is the need of SRS ? List five desirable characteristics of a good SRS document. 8
(b) What are different types of requirement gathering activities that the analysts use to gather requirements from a customer ? 8
5. (a) Differentiate between verification and validation. 8
(b) Discuss various software configuration management activities. 8

Unit III

6. (a) What is Data Flow Diagram ? What are its shortcomings as a tool for performing structured analysis ? 8
(b) What do you mean by data dictionary in the context of structured analysis ? How is it useful software development and maintenance ? 8
7. What is Cohesion ? What are different types of cohesion that a module might exhibit ? Explain using examples.

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Unit IV

8. (a) Explain, how COCOMO 2 estimation model differs from the original COCOMO model. 8
(b) What is Project Planning ? Discuss the essential activities of project planning. 8
9. (a) What do you understand by system testing ? Discuss the different kinds of system testing. 8
(b) Discuss big-bang, bottom-up, top-down and mixed integration testing. 8