

Exam. Code : 110004

Subject Code : 3778

Bachelor of Vocation (Web Technology & Multimedia)

4th Semester

SOFTWARE ENGINEERING

Paper-402

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt any five questions. All questions carry equal marks.

1. (a) What is 'Software Crisis'? State the significance in reference to 'Software Engineering' Discipline. 10
- (b) What is meant by Software Quality ? Describe the various factors which influence quality of a software product. 10
2. (a) What is Software Testing ? List and explain important software testing techniques. 10
- (b) Discuss the principles that may be useful in software development, and show how they are related. 10
3. Explain the following :
 - (a) CASE Tools and their utility 10
 - (b) Software Requirements Engineering. 10
4. (a) What software maintenance ? What are its different types ? How are these achieved ? Illustrate. 10

- (b) What is Software Failure ? Explain three necessary and sufficient conditions for Software failure through an example. 10
5. What do you understand by software metrics ? What is their essence ? Chart the classification of software metrics and illustrate the relevance each of these. 10
6. (a) What is Software Reliability ? Explain how it is related to : 10
- (i) Hardware Reliability
 - (ii) Failure Intensity.
- (b) What do you understand by Software Specification Reviews ? What are its benefits ? Explain. 10
7. (a) What is module coupling ? How is it different from module cohesion ? Illustrate different types of coupling and cohesion. 10
- (b) What is software project planning ? Outline the goals of software project planning as well as the activities involved in software project planning. 10
8. (a) What is coding ? Discuss various coding conventions followed while writing programs. 10
- (b) What is the difference between Software Verification and Validation ? Describe the importance of each in the Software Development process. Also enumerate few important verification and validation techniques. 10