



T.E. (IT) (Semester – II) Examination, 2009
SOFTWARE ENGINEERING
(2003 Course)

Time : 3 Hours

Max. Marks : 100

- Instructions:** 1) Answer to the **two** sections should be written in **separate** books.
2) Black figures to the **right** indicate **full** marks.
3) From Section I, answer (Q. 1 or Q. 2) and (Q. 3 or Q. 4) and (Q. 5 or Q. 6).
4) From Section II, answer (Q. 7 or Q. 8) and (Q. 9 or Q. 10) and (Q. 11 or Q. 12).
5) Neat diagrams must be drawn **wherever** necessary.

SECTION – I

1. A) Explain Unified Process Model with the help of diagram. 8
B) Explain CMMI Model. State any three process areas of 'Defined' level. 8

OR

2. A) Explain Spiral Process Model with the help of diagram. 8
B) Explain with the help of diagram failure curve for software. 8
3. A) List and explain the software engineering planning principles. 10
B) State and explain system elements of a computer based system. 8

OR

4. A) What are the objectives of software testing ? What is a successful test ? State and explain testing principles. 10
B) Explain with the help of diagram Product Engineering Hierarchy. 8
5. A) Draw Data Flow diagram (Level 0, 1, 2) for Multiplex Theatre. 8
B) State and explain steps for initiating requirement engineering process. 8

OR

6. A) Draw and explain Class diagram for "Book Shop". 10
B) Draw and explain the traceability table for requirement management. 6



SECTION – II

7. A) Explain design quality guidelines and quality attributes. What is Abstraction ? 8
 B) What are the different elements of Design model ? Explain Interface design elements in detail. 8

OR

8. A) What are direct and indirect measures of software processes ? Explain Size-oriented-metrics and Function oriented metrics. 8
 B) Explain Object oriented Metrics. How Software metrics collection process is carried out ? 8
9. A) List the four P's of Software Project Management spectrum. Explain how "The People" factor contributes towards the success of the software Project. 8
 B) Explain W5HH principles. What is the significance of COCOMOII model ? 8

OR

10. A) What are objectives of Measurements ? Explain in detail Object Oriented Metrics. 8
 B) Explain metrics for Web Engineering Projects. What is outsourcing ? 8
11. A) What is the need for Software Configuration Management ? Explain different elements of configuration management system. What is the role of SCM repository ? 9
 B) What is software reengineering ? Explain in details software reengineering process model. 9

OR

12. A) Write short notes on :
 i) Configuration Audit
 ii) Status Reporting
 iii) Version Control 9
- B) Draw and explain Business Process Reengineering Model. 9