



Nov-Dec
2010

[3863] – 455

T.E. (Information Technology) (Semester – I) Examination, 2010
SOFTWARE ENGINEERING (New)
(2008 Course)

Time : 3 Hours

Max. Marks : 100

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

SECTION – I

1. a) Define software engineering. List the characteristics of software. 6
- b) State and explain the customer's myths. 4
- c) Explain the incremental software process model in detail. 8

OR

2. a) Explain the software process framework activities in brief. 10
- b) Explain the Unified Processing model in detail. 8
3. a) Explain the requirement elicitation and requirement elaboration tasks in brief. 10
- b) Draw and explain the traceability table for requirement management. 6

OR

4. a) Explain the scenario based elements of analysis model in detail. 8
- b) Draw a level 0, level 1 and level 2 DFD for a library book issuing system for a college student. (1+2+5=8)
5. a) In the context of software design explain the following in brief : (4×2=8)
 - i) Modularity
 - ii) Functional independence.
- b) Explain the layered architecture style in detail. 8

OR

P.T.O.



6. a) In the context of software design explain the following in brief : (4×2=8)
- i) Information hiding
 - ii) Refactoring.
- b) What are the steps involved in user interface design ? How is the interface evaluation done ? 8

SECTION – II

7. a) What are the objectives of unit testing ? How is unit testing carried out ? 6
- b) What is basis path testing ? What is cyclomatic complexity ? How is it determined for a flow graph ? Illustrate with an example. 10

OR

8. a) What is bottom up integration testing ? How is that carried out ? 8
- b) What is unit testing and integration testing in object oriented context ? 8
9. a) What questions need to be answered in order to develop a project plan using W⁵HH principles ? 8
- b) What is objective of software measurement ? What are the software estimation techniques based on problem decomposition ? Explain any one in brief. 8

OR

10. a) What is OO metric ? 8
- b) Explain the COCOMOII estimation model. 8
11. a) What is a risk ? What are the types of software risks ? Write two examples of each. 6
- b) What is RMMM ? Write a note on it. 10

OR

12. a) What is project scheduling ? What are the basic principles of project scheduling ? 8
- b) Define SCM. What are the contents of SCM repository ? 8