



T.E. (Information Technology) (Semester – II) Examination, 2010
SOFTWARE ENGINEERING
(2003 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 Section II answer Q. 7 or Q. 8, Q. 9 or Q. 10, Q. 11 or Q. 12.

3) Neat diagrams must be drawn **wherever** necessary.

4) Figures to the **right** indicate **full** marks.

SECTION – I

1. a) State the characteristics of software. 3
- b) State the practitioner's myths. 4
- c) Explain the failure curve of software. 4
- d) What are the goals of Project planning in CMMI level 5 ? 3
- e) What are the practices of project planning in CMMI level 5 ? 4

OR

2. a) Explain the RAD software process model in brief. 6
- b) Explain the Unified Processing model in brief. 6
- c) State the umbrella activities in the software process frame work. 6
3. a) What is the essence of software engineering best practices ? 2
- b) What is the importance of communication ? State communication practices. 6
- c) What is the focus of construction practices ? Explain coding principles. 8

OR



4. a) What is the objective of software testing ? 2
- b) Explain the testing principles. 6
- c) What are the elements of product engineering hierarchy ? Explain in brief. 8
5. a) State the requirement engineering tasks. 3
- b) Explain the class based elements in detail. 5
- c) Define the following in the context of data modelling : 8
 - i) Data attributes
 - ii) Relationships
 - iii) Cardinality
 - iv) Modality.

OR

6. a) Draw a data flow diagram (level 0, level 1 and level 2) for securing first year engineering admission in a college. (1+2+5=8)
- b) Write a note on behavioural elements in the analysis model. 8

SECTION – II

7. a) State design principles. Explain modularity in detail. 8
- b) Explain data centred architecture design in detail. 10

OR

8. a) Narrate the steps in user interface design. 6
- b) Explain the call return architecture in brief. 6
- c) Explain the pipe and filter in brief. 6
9. a) What are the categories of software resources ? List the details of each type. 8
- b) What are the four P in software project management spectrum ? Explain the people factor towards the success of the project. 8

OR



10. a) What is the software measurement objective ? What is OO metric ? 8
b) Explain the LOC based software estimation in detail. 8
11. a) What is the need of SCM ? What is the role of SCM repository in SCM ? 8
b) What is configuration audit ? 4
c) What is status reporting ? 4
- OR
12. a) What is forward engineering and reverse engineering ? Explain in brief. 8
b) How is reverse engineering used in understanding data and process ? 8
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