[3763] – 259

T.E. (Information Technology) (Sem. – 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 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 and explain five generic process framework activities. 10

   b) "Although industry is moving towards component based construction most software continues to be custom built". Explain. 8

   OR

2. a) Explain with diagram formal techniques available for assessing the software process. 10

   b) State and explain software practitioners myths and reality. 8

3. a) What is the importance of testing practices ? What are the principles of testing practices ? 8

   b) What questions must be asked and answered to develop realistic project plan ? 8

   OR

4. a) Explain with example architecture defined and developed as part of Business Process Engineering. 8

   b) What does the system Engineering model accomplish ? 8

P.T.O.

5. a) What is required to develop an effective use case ? 6

b) What information is produced as a consequence of requirement gathering ? 4

c) Define following terms with suitable example. 6

1. Cardinality

2. Modality.

OR

6. a) Draw and explain context level, level 1 and level 2 DFD for college gathering. 10

b) Explain concept of structured analysis and object oriented analysis and point out the difference between two analysis models. 6

SECTION – II

7. a) What is meant by design process ? What is the characteristics of a good design ? 8

b) Explain the following architectural styles with neat diagrams. 8

i) Data centered architecture

ii) Data flow architecture

iii) Call and return architecture

iv) Layered architecture.

OR

8. a) Explain the term the people and the product of management spectrum. 8

b) Explain the following quality attributes maintainability, integrity and usability. 8

9. a) Explain the following software estimation decomposition techniques

i) FP based 4

ii) LOC based. 4

b) Why is it difficult to develop an estimation technique using use cases ? What is software scope ? 8

OR

10. a) Explain decision tree to support make buy decision with an example. 8

b) Explain process based estimation with an example. 8

11. a) What is software configuration management ? 2

b) Explain SCM Repository. 2

c) What are roles, features and contents of SCM repository ? 5

d) What are activities of software maintenance ? 2

e) Explain software reengineering process model with a diagram. 7

OR

12. a) How is configuration audit conducted ? 2

b) Explain the change control process with a neat diagram. 7

c) Explain following terms in details

i) Version Control 3

ii) Restructuring 3

iii) Forward Engineering. 3