

2319

**B. E. 6th Semester (I.T.) Examination,
May-2013**

PRINCIPLES OF SOFTWARE ENGINEERING

Paper- CSE- 302-E

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt any five questions.

1. (a) Define Software Engineering. Explain the various characteristics of software. 10
(b) Discuss in detail the "Water fall" software life cycle model with example. 10
2. (a) Explain the "COCOMO" heuristic estimation technique in detail. 10
(b) Discuss the following :
 - (i) Risk analysis and Management
 - (ii) Project scheduling and Hacking. $5 \times 2 = 10$
3. (a) Define software prototyping. Explain prototyping methods and tools. 10
(b) Discuss the data and functional modeling with example. 10
4. (a) What do you understand by functional independence ? Explain the various types of coupling. 12

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- (b) Differentiate between transform and transaction flow. 8
5. (a) Explain the various black-box testing techniques with example. 14
- (b) Define Debugging. Explain the art of debugging a process. 6
6. (a) What do you understand by software quality assurance ? Discuss the various SQA activities. 10
- (b) Define FTR. Explain how formal technical review is carried out. 10
7. (a) Define CASE and its building blocks. 10
- (b) Discuss the integrated CASE environment. 10
8. Write short note on the following :
- (a) Abstraction and modularity 8
- (b) Alpha and Beta testing 6
- (c) Reverse Engineering. 6