

ANNA UNIVERSITY:: CHENNAI
B.E. / B.Tech. (Full Time) DEGREE ARREAR EXAMINATIONS, APR / MAY 2012
INFORMATION TECHNOLOGY BRANCH
THIRD SEMESTER (REGULATIONS 2004)
IT274 – SOFTWARE ENGINEERING

Time : 3 Hrs.

Max. Marks : 100

Answer ALL Questions

PART – A (10 X 2 = 20 Marks)

1. Distinguish between verification and validation.
2. Give a suitable situation for using a spiral life cycle model.
3. What is meant by non-functional requirements?
4. What is feasibility study? Give any two major contents of feasibility report.
5. What is generalization? Give an example.
6. Draw a use-case diagram for book transaction process in library.
7. What is the role of security testing in software engineering?
8. Brief on graph-based testing methods.
9. What is Delphi Cost estimation technique?
10. What techniques can be used to formally assess the risks that can impact project success?

PART – B (5 X 16 = 80 Marks)

11. i) Explain with a neat diagram the water fall life cycle model of software engineering. [8]
ii) Explain the Business process engineering hierarchy with a diagram. [8]
 12. a) Explain the ways and means for collecting the software requirements. Also explain how they are organized and represented. [16]
- Or**
- b) Briefly discuss each of the elements of an analysis model. Indicate what each contributes to the model, how each is unique, and what general information is prescribed by each. [16]

13. a) Using a dataflow diagram and a processing narrative, describe a computer based system that has distinct transform flow characteristics. Define flow boundaries and map the DFD into a software architecture. [16]

Or

b) Explain the steps of component-level design for an object-oriented system. [16]

14. a) i) Explain how testing is performed on a Client / Server architecture. [8]

ii) Describe in detail about white-box testing. [8]

Or

b) i) Explain the strategic issues that are to be addressed to implement a successful testing strategy. [8]

ii) Illustrate with example the steps involved in deriving Test Cases. [8]

15. a) Explain the various class-oriented metrics in detail. [16]

Or

b) Explain the COCOMO II cost estimation models with example. [16]