

G 6162

M.E. DEGREE EXAMINATION, MAY/JUNE 2007.

First Semester

Computer Science and Engineering

CS 1604 — SOFTWARE ENGINEERING METHODOLOGIES

(Common to M.E. Computer and Communication)

(Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

Name the models that are used during analysis phase of a project.

List the steps involved in project planning.

How the requirements are validated in the analysis phase?

What is data dictionary?

Why is software architecture important?

How effective is modular design achieved through functional independence of the individual modules?

What are the attributes of a good software test?

What is meant by recovery and security testing?

List the characteristics that are used to evaluate design quality.

What are the uses of SCM?

PART B — (5 × 16 = 80 marks)

(a) (i) Explain COCOMO cost estimation model. What are its limitations? (8)

(ii) Explain the activities involved in software project management. (8)

Or

Explain the four evolutionary software process models.

(16)

12. (a) Discuss the conventional design versus object oriented design in software engineering. (16)

Or

- (b) (i) Explain the specification principles followed in software engineering. (6)
- (ii) Write short notes on SRS. (10)
13. (a) Explain the following in software design :
- (i) Modularity. (8)
- (ii) Abstraction. (4)
- (iii) Refinement. (4)

Or

- (b) Describe the software design methods for real time systems. (16)
14. (a) Explain data flow based testing with an example. (16)

Or

- (b) Explain the following : (8 + 8)
- (i) integration testing
- (ii) blackbox testing.
15. (a) Describe SCM and all their main features. Give their advantages. (16)

Or

- (b) Discuss the software quality assurance plan. (16)