

(CS/IT 324)

III/IV B.Tech. DEGREE EXAMINATION,
OCTOBER 2005.

Second Semester

SOFTWARE ENGINEERING

Time : Three hours

Maximum : 70 marks

Answer Question No. 1 Compulsorily.

(1 × 14 = 14)

Answer ONE question from each Unit.

(4 × 14 = 56)

All questions carry equal marks.

1. (a) What are the different layers in S/W Engineering?
- (b) List the characteristics of a system for which prototyping is most appropriate.
- (c) What are the benefits of separating functional flow from data flow?
- (d) Write the benefits of an object-oriented requirements specification with those of a functional decomposition.
- (e) Mention the different categories of code analysis tools.

- (f) What are different S/W characteristics?
- (g) Define a program monitor.
- (h) What are the different steps in testing a system?
 - (i) What is Black-Box testing?
 - (j) What is regression testing?
 - (k) What are different S/W Myths?
 - (l) What is stress testing?
 - (m) Define Cohesion and Coupling.
 - (n) What is Validation and verification?

UNIT I

- 2. (a) Explain different categories of S/W. (8)
 - (b) What are SQA activities? (6)
- Or
- (c) Explain various S/W process models. (14)

UNIT II

- 3. (a) Explain different tasks of Requirements Engineering. (8)
 - (b) Develop a complete use-case diagram for making a withdrawal at an ATM. (6)
- Or
- (c) Explain in detail the concepts and principles of analysis. (14)

UNIT III

4. (a) Explain briefly about S/W design concepts. (8)
(b) Discuss about different architectural styles. (6)

Or

- (c) Explain Transform and Transaction flow by considering the Safe Home Security System. (14)

UNIT IV

5. (a) Explain in detail about Basis Path Testing. (14)

Or

- (b) Write Short notes on :
(i) Integration testing and Validation testing. (8)
(ii) McCall's Software Quality Factors. (6)