

END TERM EXAMINATION

FOURTH SEMESTER [BCA] MAY-2010

Paper Code: BCA 204

Subject: Software Engineering

Paper ID: 20204

Time : 3 Hours

Maximum Marks : 75

Note: Question 1 is compulsory. Attempt one question from each unit.

- Q1. (a) What is software crisis? List the reasons for software crisis? (5x5=25)
 (b) Explain different steps of requirements engineering process with the help of a suitable diagram?
 (c) List the five desirable characteristics of a good SRS document?
 (d) What is software testing? Discuss the role of software testing during software life cycle?
 (e) What is software maintenance? Describe different categories of software maintenance.

Unit-I

- Q2. (a) Explain the spiral model with a neat diagram? Also discuss its advantages and disadvantages. (6.5)
 (b) What do you mean by requirements elicitation? Discuss in brief different requirements elicitation techniques. (6)
 Or
 (a) Discuss the prototype model for software development. What are its advantages and disadvantages? (6.5)
 (b) Draw a DFD & ER diagram for a library management system. Make suitable assumptions. (6)

Unit-II

- Q3. (a) Describe any two software size estimation techniques. (8)
 (b) What are various activities during software project planning? (4.5)
 Or
 (a) Explain different models of COCOMO model? Also explain all the level of COCOMO model. (8)
 (b) What is risk? What are different risk management activities? (4.5)

Unit-III

- Q4. (a) What is module coupling? Explain different types of coupling. (6.5)
 (b) Give Halstead's software science measures for (6)
 (i) Program length (ii) Program volume
 (iii) Effort (iv) Program level
 Or
 (a) What are various categories of software metrics? Discuss with suitable examples. (6)
 (b) Define module cohesion and explain various types of module cohesion. (6.5)

Unit-IV

- Q5. (a) Differentiate between the following: (8)
 (i) White box testing & black box testing
 (ii) Integration testing & system testing
 (b) What is reverse engineering? Discuss different levels of reverse engineering. (4.5)
 Or
 (a) Differentiate between the function testing & structural testing. Explain one functional testing technique and one structural testing technique. (8)
 (b) Write a note on configuration management. (4.5)
