BCA/D-16
SOFTWARE ENGINEERING
PAPER-BCA-234

Time Allowed: 3 Hours   Maximum Marks: 80

Note: Attempt five questions in all. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following questions in brief :
    (a)   What is function point? How it is used for project estimation?
    (b)   What are the various characteristics of srs?
    (c)   Differentiate between cohesion and coupling.
    (d)   Differentiate between black box and white box testing.

Unit-I

2.   (a)   Explain different programming paradigm.

     (b) Explain the following terms :
          (i)   Product Metrics
          (ii)   Process Metrics
          (iii)   Rapid application development
          (iv)   Computer Aided software engineering.

2.   What do you mean by Software development life cycle (SDLC)? Draw a diagram of pure waterfall life cycle. Explain different phases involved in waterfall life cycle.

Unit-II

4. What do you know about feasibility esudy? Explain its various types in detail.
5. (a) Explain project Monitoring. Explain its various tools and techniques in detail.
    (b) What do you mean by SCM (software configuration management)? Explain the process of SCM.

Unit-III

6. Explain the following terms :
    (a) WBS (work breakdown structure)
    (b) Gantt charts
    (c) PERT (project evaluation and Review Technique)
    (d) CPM (critical path method)

7. (a) Explain ER Diagram (Entity-Relationship). Mention types of attributes in ER diagram.

(b) Why software maintenance is necessary? Discuss problems that are faced during maintenance of software.

Unit-IV

8. (a) Define Risk Management. Explain its process with help of diagram.

(b) Explain the following term :
   (i) Unit testing
   (ii) System testing
   (iii) Mutation testing
   (iv) Regression testing

9. Discuss COCOMO model. Explain static single variable cost estimation and multi variable cost estimation model in detail.