BCA/D-17   **1242**
SOFTWARE ENGINEERING
BCA-234

Time : Three Hours]   [Maximum Marks : 80

Note :   Attempt *Five* questions in all. Q. No. **1** is compulsory. In addition to this attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

Compulsory Question

1.   Answer the following questions in brief :   4×4

   (i)   What are the attributes of good software ?

   (ii)   What do you mean by feasibility study ? Explain technical and operational feasibility ?

   (iii)   Explain Decision table with the help of an example.

   (iv)   Explain the Putnam Resource allocation model.

Unit I

2.   (a)   List the task regions in spiral model. What are the advantages and limitations of this model ?   8

   (b)   Explain different software crisis problems with their causes.   8

3. (a) Discuss advantages and disadvantages of waterfall model. **8**

(b) Explain the programming paradigms given below : **4×2**

    (i) Imperative paradigm

    (ii) Functional paradigm

    (iii) Logical paradigm

    (iv) Object-oriented paradigm.

Unit II

4. Define SRS. Explain various components of SRS. Also give general structure of the SRS. **16**

5. (a) What is SCM (Software Configuration Management) ? Describe the process of SCM. **8**

(b) Explain SQA (Software Quality Assurance) by giving its various methods. **8**

Unit III

6. Explain the concept of Data Flow Diagram (DFD). Define the following DFD terms by giving their symbols : **4×4**

(a) External entity

(b) Data flow

(c) Process

(d) Data Store.

7. (a) Explain entity relationship diagram with the help of an example. 8

   (b) Discuss importance of maintenance by giving its various types. 8

Unit IV

8. (a) Differentiate between black box and white box testing. 8

   (b) What do you mean by Project Monitoring ? Explain various tools and techniques of monitoring. 8

9. Explain the following types of testing : 8×2

   (a) Unit testing

   (b) System testing

   (c) Alpha testing

   (d) Beta testing

   (e) Acceptance testing

   (f) Mutation testing

   (g) Regression testing

   (h) Stress testing.