Sl. No.

B1.3-R5 : SOFTWARE ENGINEERING

NOTE :
1. **Answer question 1 and any FOUR questions from 2 to 7.**
2. **Parts of the same question should be answered together and in the same sequence.**

Total Time : 3 Hours   **Total Marks : 100**

1. (a) What are the advantages and disadvantages of iterative software development model ?
   (b) What is data dictionary ? Explain.
   (c) What is the purpose of data flow diagrams ?
   (d) What are the common activities in design process ?
   (e) What is UML ?
   (f) What is a Test Suite ?
   (g) Differentiate between Quality Assurance v/s Quality control.   **(7x4)**

2. (a) Explain in detail about Object-oriented design.
   (b) Difference between Functional and Non-Functional Requirements.
   (c) What is software architecture ? Describe in detail different types of software architectural styles with illustrations.   **(6+6+6)**

3. (a) Discuss the importance of software requirement specification. Explain characteristics of a good SRS.
   (b) What do you understand by DFD ? Explain basic blocks, which are used to build DFD with suitable example.   **(9+9)**

4. (a) Describe the following in brief :
      (i) Coupling
      (ii) Cohesion
   (b) Define the difference between black-box testing and white box testing.   **(9+9)**

5. (a) What is software maintenance ? Discuss the different types of software maintenance.
   (b) Explain various software configuration management activities.   **(9+9)**

6. (a) What do you mean by term re-engineering ? Why is it required ? Discuss.
   (b) Distinguish between Functional oriented designs and object oriented design.
   (c) Give the details of quality parameters which are used in a software system.   **(6+6+6)**

7. (a) Define the meaning of software quality and detail the factors which affects the quality not productivity of a software product ?
   (b) What is software testing ? What are software testing objectives ? Discuss various types of testing in detail.   **(9+9)**

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