

Roll No.

Total Pages : 03

BT-4/M-23

44232

SOFTWARE ENGINEERING

PC-CS-AIML-212A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Explain, why is incremental development the most effective approach for developing business software systems ? Why is this model less appropriate for real-time systems engineering ? 7
- (b) What are software development paradigms ? Describe each in detail. 8
2. (a) Differentiate between RAD and prototype. 7
- (b) What are the advantages of iterative development ? Compare iterative development with incremental delivery approach. 8

Unit II

3. (a) How are the activity diagrams useful in eliciting the requirements of software system ? 8
- (b) Explain the feasibility studies. What are the outcomes.? Does it have either implicit or explicit effects on software requirement collection ? 7
4. (a) Draw DFD (up to level 4) for software of bank management system. 8
- (b) Assume that you are developing an online railway reservation system. Prepare the Software Requirement Specification (SRS) document for the system. 7

Unit III

5. (a) Describe the process of Translating requirements into design model with a neat diagram. 8
- (b) Write the steps to calculate cyclomatic complexity and illustrate with an example. 7
6. (a) Give a complete template for documentation design specification. 7
- (b) Describe decomposition levels of abstraction and modularity concepts in Software Design. 8

Unit IV

7. (a) What is the importance of software quality assurance in software engineering ? Explain the SQA activities. 8
- (b) Explain the call graph based integration testing process with example. 7
8. (a) Write a note on regression testing. 6
- (b) What are the objectives of Software Maintenance ? Explain in detail maintenance metrics. 9

