

Roll No.

Total Pages : 03

BT-4/M-24

44228

SOFTWARE ENGINEERING

Paper : 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) What is software engineering and why is it important ? Explain the software engineering ethics ? 7
- (b) With the neat diagram, differentiate between prototype and incremental model. 8
2. (a) Discuss about failure curves for hardware and software with a neat diagram. 7
- (b) Discuss Iterative enhancement model and evolutionary development model with reference to suitability of the software project. 8

Unit II

3. (a) Explain the software requirement analysis and specification. Discuss various methods for requirement gathering. 8
- (b) List the different types of risk that a typical software suffer during the software development phase. Discuss the essential strategies for risk identification and risk analysis. 7
4. (a) Draw DFD (level 0, 1 and 2) for software of college management system. 9
- (b) With the neat diagram, explain the requirement elicitation and analysis process. 6

Unit III

EXAMKIT

5. (a) Explain clearly what each of the following design principles means and why is it important ? Use examples to illustrate your answer : 9
- (i) Abstraction
 - (ii) Separation of Concerns
 - (iii) Modularity.
- (b) Explain the differences between Function-oriented-design and Object oriented-design with an example. 6

6. (a) Write short note on key activities in Object Oriented Design. 7
- (b) What is meant by modularity ? How to decide the right number of modules for a specific Software design ? 8

Unit IV

7. (a) Explain the Basis Path Testing technique with suitable example. 8
- (b) Explain briefly the three different types of software maintenances. Which type consumes maximum effort ? 7
8. (a) A program reads three numbers, A, B and C with a range [1, 50] and prints the largest number. Design the test cases for this program using equivalence class partitioning technique. 8
- (b) Explain, how does Regression testing differ from the Stress testing ? 7