

Roll No. ....

Total Pages : 2

BT-4/M-22

44232

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 are the problems with waterfall model? Also give an example to illustrate your point of view.  
(b) What is rapid application development? Evaluate its advantages. (8,7)
2. (a) What is spiral model? Explain.  
(b) Tabulate various software development life cycle models. Illustrate strength and weakness of each approach. (6,9)

### UNIT-II

3. (a) What do you mean by software quality? Explain some metrics related to software quality.  
(b) What are components of IEEE standard for SRS? Describe in detail. (8,7)

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4. (a) What is requirements engineering? How to specify a requirement?  
(b) Define software quality assurance. What are different SQA activities? (7,8)

### UNIT-III

5. (a) Describe function point and COCOMO model with examples.  
(b) What are Halstead metrics? Describe in detail. (9,6)
6. (a) Justify the use of measurement in software engineering. Explain those collection of metrics that provide an indication of cohesiveness.  
(b) How are function points derived? What are the manners in which information domain values are defined? (9,6)

### UNIT-IV

7. (a) Explain the need for testing. Describe the steps involved in testing before a product launch.  
(b) What are the general guidelines recommended in software design and coding standards? Discuss. (7,8)
8. (a) Explain software maintenance principles. What are different issues involved during software maintenance?  
(b) What are the unique characteristics of errors encountered in a successful application testing? Explain the testing and debugging process that should be adopted here. (7,8)