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BT-4/M-22

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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)

- 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)