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## VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD B.E. (CSE: CBCS) VI-Semester Advanced Supplementary Examinations, July-2019

## Software Engineering

Max. Marks: 70

Note: Answer ALL questions in Part-A and any FIVE from Part-B

## Part-A $(10 \times 2 = 20 \text{ Marks})$

- 1. Draw generic process framework activity diagram in software engineering.
- 2. What is an agile process?

Time: 3 hours

- 3. Differentiate coupling and cohesion.
- 4. List the risk categories in Risk management.
- 5. Give the basic fundamental rules of the UML.
- 6. Define multiplicity in class diagram in UML.
- 7. Write the things used in Use case diagram.
- 8. What is Action states and activity states?
- 9. Define Alpha testing and Beta testing.
- 10. What is stress testing?

## Part-B (5 × 10 = 50 Marks) (All sub-questions carry equal marks)

- 11.a) What is CMMI? Explain the various levels defined in CMMI in software process.
  - b) Explain the scrum model in agile method and how does the scrum applicable for Engineering projects?
- 12.a) How is the software process estimated? Explain the process using any cost estimation model.
  - b) Many different approaches to collaborative requirements gathering have been proposed. Explain collaborative requirements gathering.
- 13.a) Explain the different relationships used in UML.
  - b) List the things used in class diagram and draw the class diagram for student management system.
- 14.a) What is behavioral diagram? and explain the concept with an example diagram.
  - b) Discuss various kinds of components in detail and draw component diagram for Examination system.
- 15.a) Define cyclomatic complexity. How is this used in basis path testing?
  - b) The goal of testing is to find errors, and good test is one that has a high probability of finding and error. The test must exhibit a set of characteristics that achieve the goal of finding the most errors with a minimum effort. Explain the different black box testing methods to test the software.

16.a) Explain the spiral model in software development model.

- b) What is Abstraction? Explain the different types of Abstraction.
- 17. Answer any *two* of the following:
  - a) Explain the building blocks in UML.
  - b) Draw Use case diagram for food delivery system.
  - c) Explain various test strategies for conventional software.

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