

Hall Ticket Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Code No. : 31123

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. (CSE) III Year I-Semester Main & Backlog Examinations, December-2017

Software Engineering

Time: 3 hours

Max. Marks: 70

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

Part-A (10 × 2 = 20 Marks)

1. What is the CMMI assessment method for process improvement?
2. How can you say that prototyping is an evolutionary process model?
3. What is the importance of a project plan and when is it developed?
4. Differentiate between cohesion and coupling.
5. UML is a standard language for developing blueprints. Justify.
6. Define an Interface and give an example.
7. Describe an artifact with diagram?
8. Draw a use-case diagram for a library management system.
9. Compare and contrast verification and validation.
10. What is defect removal efficiency? How is it used to measure software quality?

Part-B (5 × 10 = 50 Marks)

11. a) Write the importance of agile methodology and Explain that how is the scrum meeting effective technique than traditional software model? [5]
b) Write a brief note on component based development process model. [5]
12. a) What is requirement elicitation? Briefly describe the various activities performed in requirement elicitation phase. [4]
b) How is risk mitigation, monitoring and management done with a RMMM plan? [6]
13. a) What are the various relationships between classes? Give relevant examples. [4]
b) Draw an advanced class diagram for "college management system". Connect the corresponding interfaces in class diagram. [6]
14. a) What is Isomorphic diagrams? Write the reason for isomorphic diagram. Draw isomorphic diagram for online exam system. [4]
b) List the components in swimlane diagram. Draw a swimlane diagram for online trading system. [6]
15. a) What is white-box testing? Draw a sample flow graph and determine the cyclomatic complexity. [6]
b) A program state the following for an input field: The program shall accept an input value of 4 digit integer equal or greater than 2000 and less than or equal 8000. Determine the test cases using [4]
 - i) Equivalence class partitioning
 - ii) Boundary value analysis

- 16. a) How is requirements validation done? Who are the stakeholders involved in it? [4]
- b) What are the projects for which specialized process models are more suitable? Elaborate. [6]

- 17. Answer any *two* of the following:
- a) Describe structural and behavioral things in UML. [5]
- b) Draw state machine diagram and deployment diagram for a startup company and explain the things used in it. [5]
- c) Write the metrics used for software maintenance. [5]

