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Code No. : 31524

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
B.E. (I.T.) 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. Give the IEEE definition of Software Engineering.
2. List two advantages of Spiral model of software development.
3. Differentiate between layered cohesion and functional cohesion.
4. Define software design process.
5. Identify two basic features of object constraint language.
6. List the steps involved in the User Interface Design.
7. Compare black box testing with white box testing.
8. Compute Cyclomatic complexity for a given graph G.
9. What is the use of Software Maturity Index and write the formula for it.
10. Summarize the metrics for source code.

Part-B (5 × 10 = 50 Marks)

11. a) Identify the drawbacks of waterfall model. Explain Prototype model of software development. [7]
- b) In an agile model, a build is expected to be ready within 2 to 4 weeks of time? How is this possible? [3]
12. a) Explain all design concepts in design engineering. [5]
- b) Demonstrate Data modeling concepts with an example. [5]
13. a) Describe any three architectural styles with the help of a diagram. [6]
- b) Explain the steps involved while conducting a component level design. [4]
14. a) Elaborate control structure testing with an example. [5]
- b) What is CMMI? Why is it used and explain all levels in CMMI. [5]
15. a) Describe the process of Software Configuration management. [5]
- b) Explain SQA Goals and Metrics. [5]
16. a) With the help of a diagram explain incremental process model. [5]
- b) Explain Behavioral modeling with an example. [5]
17. Answer any *two* of the following:
 - a) Design Architectural Diagram for *Safe Home Security Function* application. [5]
 - b) Classify ISO 9000 Quality Standards. [5]
 - c) Explain RMMM. [5]
