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Question Paper Code: 41253

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fifth Semester

Computer Science and Engineering

14UCS503 - OBJECT ORIENTED ANALYSIS AND DESIGN

(Common to Information Technology)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Which is a combination of data and logic?
(a) object (b) class (c) attributes (d) methods
- Choose the incorrect statement in terms of Objects
(a) Objects are abstractions of real-world
(b) Objects can't manage themselves
(c) Objects encapsulate state and representation information
(d) none of these
- The measure of how strongly one element is connected to, has knowledge of, or relies on other elements is known as
(a) cohesion (b) controller (c) coupling (d) factory
- Which pattern prevents one from creating more than one instance of a variable?
(a) adapt Factory Method (b) Singleton
(c) observer (d) none of these

5. What is a strong kind of whole-aggregation and is useful to show in models?
(a) elaboration (b) association (c) composition (d) generalization
6. The construction of object-oriented software begins with the creation of
(a) Design model (b) Analysis model
(c) Code levels (d) Both design and analysis mode
7. A description of what a system does, without explaining how it does is
(a) system behavior (b) system event
(c) system boundary (d) system operation
8. Interaction Diagram is a combined term for
(a) Sequence Diagram + Collaboration Diagram
(b) Activity Diagram + State Chart Diagram
(c) Deployment Diagram + Collaboration Diagram
(d) None of these
9. What testing is involved, the system as a whole and the responsibility of the quality-assurance team?
(a) integration testing (b) unit testing (c) system testing (d) stress testing
10. A polymorphic operation
(a) Has same name
(b) Has same name but uses different methods depending on class
(c) Uses different methods to perform on the same class
(d) Uses polymorphic method

PART - B (5 x 2 = 10 Marks)

11. Define class diagram and activity diagram.
12. Distinguish between coupling and cohesion.
13. What do you mean by inception?
14. What is mean by system behavior?
15. Define the term “Unit” in OO testing.

PART - C (5 x 16 = 80 Marks)

16. (a) List various UML diagram and explain the purpose of each diagram. (16)

Or

(b) What is interaction diagram? Discuss about various types of interaction diagram with example. (16)

17. (a) Designing the use case realizations with GoF design patterns. (16)

Or

(b) Differentiate coupling and cohesion. Discuss about various types of cohesion and how do you measure the degree of coupling? (16)

18. (a) Explain the following with example (i) Conceptual class diagram (ii) Activity diagram. (16)

Or

(b) Explain about aggregations and composition relationship of an object. Illustrate with example. (16)

19. (a) How would you identify attributes and methods? Discuss about various approaches for identifying classes. (16)

Or

(b) Discuss about UML deployment and component diagram with suitable examples. (16)

20. (a) Explain in detail the operations of mapping design to code. (16)

Or

(b) (i) Define GUI testing. Discuss about the difficulties in GUI. (8)

(ii) Explain about OO Integration testing and OO system testing. (8)

