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220502

December, 2019
MCA - V SEMESTER
Object Oriented Software Engineering (MCA-17-303)

Time : 3 Hours]   [Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) How are good systems built?   (1.5)

    (b) What is an object? Describe the characteristics of the same.   (1.5)

    (c) What is Rational Rose?   (1.5)

    (d) How do you represent boundary, entity and control class in UML?   (1.5)

    (e) What do you understand by stereotype?   (1.5)

(f) What do you understand by forking and joining? (1.5)

(g) What are the different types of message arrows? (1.5)

(h) What is a sequence diagram? (1.5)

(i) Are use cases same as functional requirements? (1.5)

(j) Differentiate between instances and abstractions?

(1.5)

PART - B

2. (a) Explain the various things of UML along with their syntax? (10)

(b) What is object oriented Modelling? (5)

3. (a) Explain how UML is use-case centric, architecture driven, iterative and incremental in nature? (10)

(b) What are relationships? Explain the basic as well as advanced relationships with respect to UML diagrams? (5)

4. What are activity diagrams? Explain with the help of suitable example the different types of control flows pertaining to activity diagrams? (15)

5. (a) Represent the class diagram for online shopping domain model. Each customer could have some web user identity. Web user could be in one of the several states and could be linked to a shopping cart. (10)

(b) Why is homogenisation of classes important in UML? (5)

6. (a) Draw a sequence diagram which shows how a Facebook user could be authenticated in a web application to allow his/her Facebook resources. (10)

(b) Differentiate between forward engineering and reverse engineering. What role do they play in UML? (5)

7. (a) What is Iteration Planning Process? Why is it important? (5)

(b) What are state-chart Diagrams? How they are different from flow-charts? (5)

(c) What is a Package? How do you represent the compete name of a package? Also explain how packages are imported and exported? (5)

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