R05

Set No. 2

II B.Tech I Semester Examinations,May/June 2012
OOAD THROUGH UML
Aeronautical Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) Illustrate sequence diagram and collaboration diagram for modeling flow of control by time and flow of control by organization respectively.

   (b) Enumerate the properties of a well-structured interaction. [12+4]

2. (a) Briefly explain the following with UML notation.
      i. Stereotype
      ii. Tagged value
      iii. Constraint
      iv. node.

   (b) Explain runtime polymorphism with an illustrative program in JAVA/C++.

   (c) Explain software architecture. [8+6+2]

3. (a) Enumerate the steps to model simple collaborations.

   (b) Describe forward engineering and reverse engineering.

   (c) The cellular network must place the phone call correctly, and also schedule the receiving and conference calls. Draw a class diagram. [6+2+8]

4. (a) What are the five standard stereotypes that UML applies to packages. Explain.

   (b) What are the relationships between packages?

   (c) Define package. Give example. [10+4+2]

5. Instead of using write() and read() operations in a persistent class, use a solution where persistent classes maintain metadata (data about itself. i.e., a description of its attributes), so that a database class can query an unknown persistent object about what kind of attribtes it has and the values of these attributes, and then store them in the database. A new class Metadata should be defined and a meta-data object should be aggregated by all persistent class. Draw detailed class diagram and explain [16]

6. Consider modeling a library information system consider the use case "lend item (without considering the reservation)." Draw sequence diagram and collaboration diagram. Explain briefly. [16]

7. (a) Enumerate the steps to model the following:
      i. family of signals

ii. exceptions

(b) Explain the four kinds of events modeld by UML. [6+10]

8. (a) Define component. What are the differences between components and classes? How are component and interface related?

(b) What are the properties of components?

(c) What are standard stereotypes UML defines that apply to components.[8+4+4]

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Code No: R05212101　　　　　**R05**　　　　　**Set No. 4**

II B.Tech I Semester Examinations,May/June 2012
OOAD THROUGH UML
Aeronautical Engineering

Time: 3 hours　　　　　　　　　　　　　　　　　　　　Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) What are the five standard stereotypes that UML applies to packages. Explain.

   (b) What are the relationships between packages?

   (c) Define package. Give example.　　　　　　　　　　　　　　　[10+4+2]

2. (a) Briefly explain the following with UML notation.
      i. Stereotype
      ii. Tagged value
      iii. Constraint
      iv. node.

   (b) Explain runtime polymorphism with an illustrative program in JAVA/C++.

   (c) Explain software architecture.　　　　　　　　　　　　　　　[8+6+2]

3. (a) Illustrate sequence diagram and collaboration diagram for modeling flow of control by time and flow of control by organization respectively.

   (b) Enumerate the properties of a well-structured interaction.　　　　[12+4]

4. (a) Define component. What are the differences between components and classes? How are component and interface related?

   (b) What are the properties of components?

   (c) What are standard stereotypes UML defines that apply to components.[8+4+4]

5. (a) Enumerate the steps to model the following:
      i. family of signals
      ii. exceptions

   (b) Explain the four kinds of events modeld by UML.　　　　　　　[6+10]

6. (a) Enumerate the steps to model simple collaborations.

   (b) Describe forward engineering and reverse engineering.

   (c) The cellular network must place the phone call correctly, and also schedule the receiving and conference calls. Draw a class diagram.　　　[6+2+8]

7. Instead of using write() and read() operations in a persistent class, use a solution where persistent classes maintain metadata (data about itself. i.e., a description of its attributes), so that a database class can query an unknown persistent object

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about what kind of attribtes it has and the values of these attributes, and then store them in the database. A new class Metadata should be defined and a meta-data object should be aggregated by all persistent class. Draw detailed class diagram and explain [16]

8. Consider modeling a library information system consider the use case "lend item (without considering the reservation)." Draw sequence diagram and collaboration diagram. Explain briefly. [16]

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   (c) Define package. Give example. [10+4+2]

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R05

Set No. 3

II B.Tech I Semester Examinations,May/June 2012
OOAD THROUGH UML
Aeronautical Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
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   (b) Describe forward engineering and reverse engineering.

   (c) The cellular network must place the phone call correctly, and also schedule the receiving and conference calls. Draw a class diagram. [6+2+8]

2. (a) Enumerate the steps to model the following:
      i. family of signals
      ii. exceptions

   (b) Explain the four kinds of events modeld by UML. [6+10]

3. (a) What are the five standard stereotypes that UML applies to packages. Explain.

   (b) What are the relationships between packages?

   (c) Define package. Give example. [10+4+2]

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      i. Stereotype
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      iii. Constraint
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   (b) Explain runtime polymorphism with an illustrative program in JAVA/C++.

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