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B.Tech. Degree V Semester Examination November 2014

IT 1505 OBJECT ORIENTED MODELING AND DESIGN (2012 Scheme)

Time: 3 Hours

Maximum Marks: 100

PART A (Answer ALL questions)

(8 × 5 = 40)

- I. (a) What is object orientation? Explain with an example.
 (b) What is generalization? Briefly describe its equipments.
 (c) What are use case models? Give guidelines for constructing one.
 (d) Explain the difference between an event and an activity.
 (e) What are nested states? Explain with examples.
 (f) How would you improve the organization of a class design?
 (g) List the advantages and disadvantages of OCL.
 (h) Describe the requisites of a description language to be classified as an ADL.

PART B

(4 × 15 = 60)

- II. (a) Explain the models in object oriented development. Bring out the relationship between these. (8)
 (b) With respect to multiple inheritance discuss: (7)
 (i) multiple classification (ii) workarounds.
- OR**
- III. With the help of a sample model, explain: (15)
 (i) attributes and operations
 (ii) qualified associations
 (iii) multiplicity
 (iv) association end names
 (v) generalization and inheritance.
- IV. (a) What is concurrency? Explain the aggregation concurrency with an example. (7)
 (b) What are sequence models? Draw the sequence diagram for on-line stockbroker system. (8)
- OR**
- V. (a) Draw and explain the use case diagram for library management system. (7)
 (b) Describe the activity diagram of an online shopping system. (8)
- VI. Compare the two types of interaction diagrams. What are the key differences between them considering their characteristics and their application? (15)
- OR**
- VII. Draw and describe the state diagram for a railway ticket booking system. (15)
- VIII. Explain the OCL expression syntax with a proper example. (15)
- OR**
- IX. (a) Differentiate between software architecture and design. (5)
 (b) Explain the different architectural styles, with examples. (10)