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# B.TECH. DEGREE EXAMINATION, MAY 2015

## Seventh Semester

Branch: Computer Science and Engineering

CS 010 704—OBJECT ORIENTED MODELLING AND DESIGN (CS)

(New Scheme—2010 Admission onwards)

[Improvement/Supplementary]

Time: Three Hours

Maximum: 100 Marks

#### Part A

Answer all questions.
Each question carries 3 marks.

- 1. Describe link and association.
- 2. Define a condition and give one example.
- 3. Mention the two aspects of reuse.
- 4. Mention the purpose of object design.
- 5. What are active objects and give it's notation?

 $(5 \times 3 = 15 \text{ marks})$ 

#### Part B

Answer all questions.
Each question carries 5 marks.

- 6. Explain aggregation concept with an example diagram.
- 7. Explain the relation of functional to object and dynamic models.
- 8. How the system designer estimates the hardware resource requirements?
- 9. List the steps to be performed by the designer during object design.
- 10. Describe swim lanes in activity diagrams with an example.

 $(5 \times 5 = 25 \text{ marks})$ 

### Part C

Answer all questions.

Each question carries 12 marks.

11. Explain generalization and inheritance with a suitable example.

Or

12. Describe grouping constructs in object oriented development.

Turn over

13. Illustrate and briefly explain the nested state diagram for a phone line.

Or

- 14. Describe the following advanced dynamic modelling concepts:
  - (i) Automatic transition;
  - (ii) Synchronization of concurrent activities.
- 15. Explain the various criteria to discard unnecessary and incorrect associations.

Or

- 16. Describe the process of choosing software control implementations.
- 17. Explain the following concepts for achieving adjustment of inheritance:
  - (i) Rearrange classes and operations.
  - (ii) Abstracting out common behaviour.

Or

- 18. Describe the issues involved in physical packaging.
- 19. Explain branching and synchronization in activity diagrams with suitable illustrations.

Or

20. Describe deployment diagram symbols and notations with suitable illustrations.

 $(5 \times 12 = 60 \text{ marks})$ 

