

ECS305

(Following Roll No. to be filled by candidate)

Roll No.

11416317018

B.Tech.  
THIRD SEMESTER EXAMINATION 2015-16  
ECS305  
OBJECT ORIENTED SYSTEMS

Time: 3 hours

Max Mark: 100

Note

- Attempt all questions.
- Marks and number of question to attempt from the section is mentioned before each section.
- Assume missing data suitably. Illustrate the answer with suitable sketch.

1. Attempt **any four parts** from the following:

[4 x 5]

- a. What is object oriented modeling? What is the purpose of object oriented modeling in software development?
- b. Is aggregation is strong form of association? If yes, then give suitable example and if no give suitable explanation.
- c. State the importance of abstract class in object oriented modeling by taking suitable example.
- d. Write a program in C++ to demonstrate multiple inheritance.
- e. What is Metadata? Discuss the significance of metadata in object oriented modeling.

2. Attempt **any four parts** from the following:

[4 x 5]

- a. Differentiate between Event and action by taking suitable example.
- b. What is state Diagram? What are the various components of state diagram?
- c. How concurrency is represented within state of single object?
- d. Give state diagram for an withdrawal transaction at Bank ATM.
- e. Write short note on the followings:
  - i. Advance dynamic model concepts
  - ii. Nested state diagrams

3. Attempt **any two parts** from the following:

[2 x 10]

- a. What is Object Modeling Technique (OMT)? What are the various phases of OMT?
- b. What is Data Flow Diagram (DFD)? What are the main parts of the DFD? Draw a DFD for a library management system.

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- c. Compare Structured analysis(SA)/structured design(SD) and Jackson structured development (JSD) methodologies.

4. Attempt **any two parts** from the following:

[2 x 10]

- a. What are the various data types in java? Explain the life cycle of applet.
- b. What is thread in Java? Differentiate between the thread and process using java code. Briefly explain the multithreading.
- c. Explain string handling and AWT controls.

5. Attempt **any two parts** from the following:

[2 x 10]

- a. What are Java Beans? Discuss the life cycle of java servlets using diagram.
- b. Explain the functioning of upper layer E-mail and their applications?
- c. Write short note on the followings (any two):
  - i. JDBC
  - ii. Dynamic billboard applet
  - iii. Java Swing