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Roll No ....

MCSE/MSE-104

M.E./M.Tech. I Semester

Examination, December 2017

Object Oriented Technology

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) What is the relationship of a class and its objects? How is memory allocated to a class and its object? Explain with a suitable example.

   b) What is overriding? List and explain the reasons for which overriding is done?

2. a) Explain Booch methodology for object oriented design.

   b) What are the differences and similarities between analysis, design and detailed design in the object oriented context?

3. Give the importance of the following:

   a) Use case diagram

   b) Class diagram

   c) Sequence diagram

   d) Activity diagram

4. a) Write a program in C++ to overload '+' operator for the summation of complex numbers.

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b) What is virtual, base class? Explain with an example the use of virtual base class.

5. a) What are the applications where relational databases do not suffice and need arise for object oriented database? How object oriented databases are modeled?

   b) Explain UML. What are the basic building blocks of UML? Discuss various diagrams used in UML.

6. a) Explain the architecture of distributed object oriented system.

   b) Differentiate between components and classes. Discuss object request broker architecture of CORBA.

7. a) The communication between the object depends on their type. What are the ways in which the objects of a system may interact with each other? For each of them, give at least one example also.

   b) How location transparency is achieved through CORBA? Discuss.

8. Write short notes on any four of the following:

   a) Stream class hierarchy

   b) Features of Object Query Language (OQL)

   c) Aggregation

   d) System design life cycle

   e) Control structures

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