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Roll No ....

MCSE/MSE - 104
M.E./M.Tech., I Semester
Examination, December 2013
Object Oriented Technology

Time : Three Hours

Maximum Marks : 70

Note: Attempt any five questions. All questions carry equal marks.
Assume missing data suitable, if any.

1. a) Discuss different phases of traditional SDLC. How traditional SDLC is different from adaptive SDLC?

   b) Define Association, Multiplicity, Encapsulation, Inheritance and Polymorphism with suitable examples.

2. a) Describe the concept of Aggregation and Generalization by giving suitable examples. How is Aggregation and Generalization hierarchy noted on a class diagram?

   b) What do you understand by recursive aggregates? Also discuss multiple inheritance by giving an suitable example.

3. a) Discuss Object Modeling Technique in detail.

   b) Define Object, Object class and overriding with suitable examples. Also differentiate between Operations and Methods.

4. a) Discuss different themes underlying object oriented technology.

b) Why sometimes it is better to model an association as a class? Support your answer with proper example. Also describe the aggregation relationship. In what situation it should be used in construction of object models.

5. a) What is the output of the following code segment?

```
int   counter 1 = 0;
int   counter 2 = 0;
int   counter 3 = 0;
int   counter 4 = 0;
int   counter 5 = 0;
for  (int I = 0; I < 10; ++I) {
      ++ counter 1;
      for (int j = 0; j < 10; ++j) {
          ++ counter 2;
          if (i == j) {
              ++ counter 3;
          }
          else {
              ++ counter 4;
          }
      }
      ++ counter 5;   RGPVONLINE.COM
}
cout << counter 1 << " " << counter 2 << " " << counter 3 <<
" " << counter 4;
```

b) Consider the following code segment :

```
int    i = 1;
while (i <= n) {
      if ((i % n) == 0) {
          ++ i;
      }
}
cout << i << endl;
```

i) What is the output if n is 0?

ii) What is the output if n is 1?

iii) What is the output if n is 3?

6. a) What is the difference between persistent and transient objects? How is persistence handled in typical OO database systems.

b) Explain Object-relational features of SQL.

7. a) Discuss the architecture of Object Oriented Databases.

b) Explain Table Inheritance along with an example.

8. Write short notes on any three of the followings :

a) CORBA

b) Reusability

c) Metadata

d) Program Design Patterns   RGPVONLINE.COM

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