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SE- Comp.
Sem III (CBSGS)
O.O.P.M.

18/12/2014.

QP Code :14704

corrections made

(3 Hours) [Total Marks :80

N.B. : (1) Question No.1 is **compulsory**.
  (2) Attempt any **three** from remaining.

1. (a) Write a program that queries a user for the no.: of rows and columns representing   10
   students and their marks.
   Reads data row by row and displays the data in tabular form along with the row
   totals, column totals and grand total
   Hint : For the data 1, 3, 6, 7, 9, 8 the output is

1	3	6	|	10
7	9	8	|	24
8	12	14	|	34

   (b) Explain System.arraycopy ( )   5
   (c) Explain multiple inheritance in java with suitable example.   5

2. (a) Identify classes and their attributes and draw the relationships that are described   12
   by the following business rules. Include the multiplicities for each relationship.
     (i) A patient must be assigned to only one doctor and a doctor can have
       one or many patients.
     (ii) An employee has one phone extension and unique phone extension is
       assigned to an employee.
     (iii) A movie theatre shows atleast one movie and a movie can be shown at
       upto 4 other movie theatres around town.
     (iv) A movie either has one star, 2 co-stars or more than 10 people starring
       together. A star must be in atleast one movie.

   (b) Explain coupling and cohesion with suitable example.   8

3. (a) Each year, sleepy Hollow Elementary school holds a "Principal for a Day" lottery.   10
   A student can participate by entering his/her name and ID into a pool of candidates.
   The winner is selected randomly from all entries. Each student is allowed one
   entry. Implement a student class that encapsulates a student. Implement
   StudentLottery class with methods addStudents () and pickwinner () and main ()
   Hint : Use Random class to pick winner.

GN-Con.:11991-14. TURN OVER

Pg 2/2

SE - Computer.
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(b) With suitable example ,explain creation and use of user defined packages.   10

4.(a) Write detailed note on following exception handling terms.   10
       (i) try-catch   (ii) finally
       (iii) Catch multiple exception
       (iv) Throwing exception.

(b) Write a program that computes the sum of a list of integers that is supplied by a   10
user. The end of data signalled by the value - 999. This value is used only as a
flag and not used in sum. **-999**

5. (a) Create Rectangle and Cube class that encapsulates the properties of a rectangle   15
and cube i.e. Rectangle has default and parameterised constructor and area ()
method. Cube has default and parameterised constructor and volume () method.
They share no ancestor other than Object.
Implement a class Size with size() method. This method accepts a single reference
argument z. If z refers to a Rectangle then size (z) returns its area and if z is a
reference to a Cube, then size (z) returns its volume. If z refers to an object of any
other class, then size (z) returns - 1. Use main () method in Size class to call
size (..) method. **-1**

(b) Differentiate between Interface and abstract class.   5

6. Write short notes on any **four** :—   20
       (a) JVM   (b) Package
       (c) Polymorphism   (d) Wrapper class
       (e) ArrayList and LinkedList
       (f) Vector.

Course : S.E (COMPUTER & INFORMATION TECHNOLOGY) (SEM III) (CBSGS)(PROG 616 To 630)
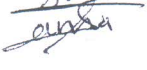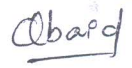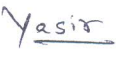
Q.P Code : 14704

Correction :
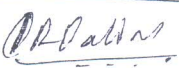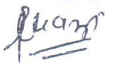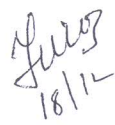
READ:

Ques. No. 1 (c) is to be read as it is.

Ques. No. 4 (b) value is to be read as "-999" (negative).

Ques. No. 5 (a) returns – 1 to be read as "-1" (negative).

Query Update time : 18/12/2014 03:20 PM

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