

2012

Paper-X - JAVA

GROUP-A
(COMPULSORY)

1. Choose the correct answers from the following.
 - a. Which of the following statements about the java language is true?
 - i. Both procedural and OOP are supported in java.
 - ii. Java supports only procedural approach towards programming.
 - iii. Java supports only OOP approach.
 - iv. None of the above.
 - b. Which of the following statements is false about objects?
 - i. An instance of a class is an object
 - ii. Objects can access both static and instance data.
 - iii. Object is the super class of all other classes.
 - iv. Objects do not permit encapsulation.
 - c. How many numeric data types are supported in java?
 - i. 8
 - ii. 4
 - iii. 2
 - iv. 6
 - d. The class java.lang.Exception is?
 - i. Protected
 - ii. Extends throwable
 - iii. Implements throwable
 - iv. Serializable
 - e. Which of the following is considered as a blue print that defines the variables and methods common to all its objects of a specific kind?
 - i. Object
 - ii. Class
 - iii. Method
 - iv. Real data types
 - f. After the following code fragment, what is the value in fname?

```
String str;  
int fname;  
str="foolish boy."  
fname=str.indexOf("fool");
```

 - i. 0

- ii. 2
- iii. -1
- iv. 4

g. What is the value of 'number' after the following code fragment execution?

```
int number=0;
int number 2=12
while(number<number 2)
{
number=number+1;
}
```

- i. 5
- ii. 12
- iii. 21
- iv. 13

h. Given the following code snippet;

```
int salaries[];
int index=0;
salaries =new int salaries[4];
while(index<4)
{
salaries[index]=10000;
index++;
}
```

What is the value of salaries[3]?

- i. 40000
- ii. 50000
- iii. 15000
- iv. 10000

i. Which of the following is not a return type;

- i. Boolean
- ii. Void
- iii. Public
- iv. Button

j. If $result=2+3*5$, what is the value and type of 'result' variable?

- i. 17,byte
- ii. 25,byte
- iii. 17,int
- iv. 25,int

2. Write a program in java to calculate and print the sum of odd number and the sum of even number for the first n natural numbers. The integer n is to be entered by the user.

3. A cloth showroom has announced the following festival discounts on the purchase of items, based on the total cost of the items purchased:

Total cost	Discount (in percentage)
Less than Rs. 2000	5%
Rs. 2001 TO Rs. 5000	25%
Rs. 5001 to Rs. 10000	35%
above Rs. 10000	50%

Write a program in java to input the total cost and to compare and display the amount to be paid by the customer after available the discount.

4. What is method overloading? Illustrate with example.

5. Compare the java Access specifiers private, public and protected.

6. Discuss the any two of the following features of java with supported example.

- Object and classes
- Data Encapsulation
- Inheritance
- Polymorphism

7. Compare and contrast logic behind while and do-while loops with example.

8. Explain the following classes and illustrate their use.

- input stream class
- reader abstract class

9. What is synchronization and why is it important?
Explain with example.

10. What is an applet? Explain life cycle of applet with diagram?