Half Yearly Examination 2016-2017

Std. : IX **Full Marks : 100**

Subject : Computer Application **Time : 2 Hrs.+15mins.**

I. Explain following terms :— **[5x2=10]**

a) JDK

b) JVM

c) OOP

d) comments in bluej

e) private

II. Write difference among following with example. **[5x2=10]**

a) class and object

b) char and boolean

c) round and floor

d) ++ and +

e) \t and \n

III. Explain following questions :— **[5x2=10]**

a) What are identifiers ? Give 2 examples.

b) Why a class is known as object factory ?

c) What is exit and entry control loop ?

d) What are jump statement ? Explain with example.

e) What is fall through method ?

IV. Write output of following :— **[5x2=10]**

a)
```
for (i=i ; i <=5 ;)/ i = i + 2)
   {
   System.out.println(i);
   }
```

b)
```
for (i=1; i<4; i++)
   {
      for (j=4; j>=i; j--)
         {
            System.out.print (j);
         }
      system.out.print();
   }
```

c)
```
int m=7, p=1;
   do
   {
      if (m%2==0)
         p=p*m;
         m++;
   }
   while (m<=25);
                System.out.print (p);
```

d)
```
for (float x=1.0 ; x<=4.0; x=x+.5)
      {
         System.out.println(x);
      }
```

e)
```
int x=1, s=o;
   while (x<=20)
      {
         s=s+x;
         x+=2;
system.out.println(s);
   }
```

SECTION - B (60 Marks) (15x4=60)

(Attempt any 4 questions from this section) [15x4=60]

1. Write a program to find the sum of digits (square of even digits and cube of odd digits) of a number entered by the user.

   input - 23
   output - 2x2 + 3*3*3
   4+27
   = 31

2. Write a program to accept an option from the user and a number. if option is 1 Display all digits of the number.

   If option is 2 Display sum of digits of the number

   If option is 3 Display "Thank you"

3. Create a class series.

   Series 1 ( ) — It will salve following series

   $$\frac{2!}{2} + \frac{3!}{3} + \frac{4!}{4} \text{ ..... till n terms}$$

   Series 2 ( ) — It will solve following series

   $$\frac{1+2}{1x2} + \frac{1+2+3}{1x2x3} + \frac{1+2+3+4}{1x2x3x4} \text{ ..... till 10 terms}$$

Series 3 ( ) — It will solve following series

$$x + 2x — 3x + 4x + 5x — 6x \ldots\ldots\ldots\ldots \text{ till } nx$$

4. Write a program to accept a no. and check it is an Armstrong number or not

ex — 1 5 3

$1^3 + 5^3 + 3^3$

= 1 + 125 + 27

= 153. so 153 is an Armstrong number.

5. Write a program to accept any 1 option among 1 to 3.

If option is 1 solve voc = s*s*s

If option is 2 solve vos = $\frac{4}{3} \pi r^3$

If option is 3 solve vocd = l*b*h

Here user will accept option and values for s,r,l,b,h

6. Write a program to calculate simple interest as per given conditions.

Time	**Rate of Interest**
for 1 year	6.5%
for 2 years	7.5%
for 3 years	8.5%
for 4 years and move	9.5%

Here user will enter principle and time

SI = P*r*t/100