

Final Term Examination 2017-2018

Std. : IX
Subject : COMPUTER APPLICATIONS

Full Marks : 100
Time :

SECTION A (40 Marks)

Question 1

[2x5=10]

- What do you mean by fall through programming technique.
- Explain the term 'assignment' with an example.
- Explain infinite loop with an example.
- What is Inheritance.
- Name the package used for Scanner ?

Question 2.

[2x5=10]

Write difference among the following functions: -

- Character.toUpperCase() and Character.toLowerCase()
- State the difference with an example between a rint() and random()
- Character.isLetter() and Character.isLetterOrDigit().
- formal and actual parameters ?
- max() and min()

Question 3.

Write output of the following :

[2x5=10]

- ```
for(int i=1; i < 6; i++)
System.out.println(i);
```
- ```
int n=243;
while(n>0)
{
System.out.println(n%10);
n=n/10;
}
```
- ```
char x='a';
System.out.println(x+x);
System.out.println((int)x+(int)x);
```
- ```
char ch='r';
System.out.println(Character.isLetter(ch));
```
- ```
int a=5,b=10;
int c=(++a*b/2)*4;
System.out.print(a+"\t"+c);
```

#### Question 4

Convert the following loops

[2½x4=10]

a) 

```
for(i=10;i>=1;i--)
System.out.println(i).
(convert in do-while loop)
```

b) 

```
int n=67;
while(n>0)
{
rem=n%10;
System.out.println(rem);
n=n/10;
}
(convert in for loop)
```

c) 

```
int d=48;
do {
System.out.println(d);
d=d/10;
}
while(d>=46);
(convert into while)
```

d) write output of the following int r,c;  

```
for(r=4;r>=1;r--)
{
for(c=3;c>=1;c--)
{
System.out.print(c);
}
System.out.println();
}
```

#### SECTION B (60 Marks)

Attempt any four questions from this Section. Each program should be written using Variable descriptions/Mnemonic Codes such that the logic of the program is clearly depicted.

#### Question 1.

[15]

Create a class Salary that is described as below:

Class Name : Salary

Data members :

basicPay, specialAlw, conveyanceAlw, gross, pf, netSalary, AnnualSal(All double type data)

Member methods :

Accept() - to accept annual salary from the user

SalaryCal() - to calculate other allowances and salaries as given:

specialAlw = 25% of basic salary.

gross = basicPay + specialAlw + conveyanceAlw.

netSalary = gross - pf.

display() - to special allowance, gross, netsalary and the annual salary in different lines

**Question 2.**

**[15]**

Design a class to pattern in which the user will enter and option among 1 to 3.

| If option is 1 print | If option is 2 print | If option is 3 print |
|----------------------|----------------------|----------------------|
| 12345                | 1                    | 1                    |
| 2345                 | 10                   | 2 3                  |
| 345                  | 101                  | 4 5 6                |
| 45                   | 1010                 | 7 8 9 10             |
| 5                    | 10101                |                      |

**Question 3.**

**[15]**

Write a program to accept 3 different names and print the largest name with its length

**Question 4.**

**[15]**

Write a program to accept any 1 option among 'a' or 'p' and an individual number.

If the option is 'a' then check number is Armstrong or not.

If the option is 'p' then check number is palindrome or not.

**Question 5.**

**[15]**

Write a program to accept a word from the user and change the case of the alphabets in the given word as in example.

Enter :- RayBan

Output :- rAYbAN

**Question 6.**

**[15]**

Write a program to accept any one option among 1 or 2.

If option is 1 print sum of following series

2! + 4! + 6!.....till n!

If option is 2 print sum of following series

0+3+8+15+.....till n.