

Attempt all the questions from Section A and any four questions from Section B.

SECTION 'A' (40 Marks)

Attempt all the questions

- Q1. (a) State the different ways of creating a new presentation ? (10)
 (b) What is a compound statement? Give an example. (2 marks each)
 (c) Name the class that is used for different Mathematical functions. Give two different examples of Mathematical functions used in Java.
 (d) Write a note on slide sorter view.
 (e) How can we insert and delete a slide in a presentation ?
- Q2. Differentiate between : (10)
 (a) variable and constant (2 marks each)
 (b) slide and presentation
 (c) Byte code and JVM
 (d) implicit and explicit type conversion
 (e) increment and decrement operators
- Q3. (a) Give the output of the program segment given below. Copy the program in the answer after correcting the syntax errors if any : (5)
- ```
s=0;
n=10;
while(n>1)
{
 n -- = 3;
 s + = n;
 System.out.println(s);
}
System.out.println(n);
```
- (b) Rewrite the program segment shown below using a FOR loop. (5)
- ```
char x = 'A';
do
{
    x = (char) (x + 2);
    System.out.println(x);
} while(x < 'j');
```
- Q4. State and reason the output of the following code segments : (10)
 (2 marks each)
- (a) `int a = 15;`
`a += 2 * a++;`
`System.out.println(" " + a + a);`
- (b) `int x = 102;`
`System.out.println(x++);`
`System.out.println(x + 1);`
- (c) `int i = 13;`
`if(i%3 == 0)`
`System.out.println(i++);`
`else`
`System.out.println(++i);`
- (d) `double y = 13.8;`
`double x = 1/2 * y;`
`System.out.println(x + "\t" + y);`
- (e) `int k = 12; if(k/2 == 0)`
`System.out.println(k);`
`System.out.print(k + 1);`

SECTION 'B' (60 Marks)

Attempt any four questions (15 marks each)

Write the Java programs with mnemonic names, indentation and remarks

- Q5. Write a java program to input n and display the terms and the sum of the following series :
2 + 5 + 10 + 17 + n terms (15)

- Q6. Write a program to display the multiplication table of an input number. (15)

- Q7. Write a Java program using switch case to calculate and display the volume of a cuboid , cylinder and a cone as per user's choice : (15)
 - (a) Volume of a cuboid ($v = lbh$)
 - (b) Volume of a cylinder ($v = \pi r^2h$)
 - (c) Volume of a cone ($v = \frac{1}{3} \pi r^2h$)

- Q8. (a) W.a.p. to accept two numbers and swap them without using third variable. (7)
(b) W.a.p. to accept a number and display the sum of its odd digits. (8)
e.g. : Input : 4738 Output : 7 + 3 = 10

- Q9. W.a.p. to find the gross salary of an employee for the following allowances and deduction. Input the employee name and Basic Pay and display the Gross Pay. (15)

| Allowance / Deductions | Rate |
|---|------------------------|
| Dearness Allowance | 25% of the Basic Pay |
| House Rent Allowance | 15% of the Basic Pay |
| Provident Fund Deduction | 8.33% of the Basic Pay |
| Net Pay = Basic Pay + Dearness Allowance + House Rent Allowance | |
| Gross Pay = Net Pay – Provident Fund | |
