

CLASS IX : REVISION GUIDELINES, SEPT 2011- KP

PowerPoint

1. What is a presentation? Give 2 uses of PowerPoint.
2. What is a Slide? Name its main components.
3. Name the 4 different options to create a presentation.
4. Name the 5 main views in PowerPoint with one main characteristic of each view.
5. Write the steps for-
 - a. Creating a new slide.
 - b. Running the slide show.
 - c. Changing the slide background.
 - d. Printing a presentation.
 - e. Insert a clipart in a slide.

Java Theory

1. List the 8 data types available in Java with their sizes.
2. Give the format of a java program (also mention the filename)
3. Show an example to demonstrate the difference between prefix and postfix versions of the increment and the decrement operators of Java.
4. Differentiate between –
 - a. If and switch
 - b. = and ==
 - c. ! and !=
 - d. If and ternary operator.
 - e. print() and println() functions.
 - f. For and While
 - g. While and Do-while
 - h. A Conditional and a Looping statement.
 - i. % and / operators.
 - j. break and continue.
5. Define
 - a. Variable
 - b. Constant
 - c. JVM
 - d. Byte Code
 - e. Compiler
 - f. Interpreter
 - g. ASCII value
 - h. Update expression/Counter
 - i. Block
 - j. Source code
6. What are the two types of conversions in Java? Explain with examples.
7. What is the role of the *break* statement in switch?
8. What is the role of the *default* statement in switch?
9. Give the three logical and six relational operators in Java. Also show the working of the logical operators using a truth table.

10. What is a nested if? Show with an example.

Java Programs

General

1. Write a Java program to solve $\sqrt{s(s-a)(s-b)(s-c)}$.
2. Write a program using functions to input p & b and display h using the formula $\sqrt{p^2 + b^2}$
3. Input the radius and display the area and the circumference of a circle.
4. Input marks in three subjects. Display their sum and average.
5. Input a number from the user and display 33.3% of that number.

If/Switch

1. Input a number and display if it is even or odd.
2. Input a number and display if it is positive, negative or neutral.
3. Input a year and display if is leap or not. (A century year like 1700, 1800, 1900, 2000, 2100... is said to be leap only if it is divisible by 400, non-century years should be divisible by 4)
4. Input the bill amount for a customer and display the amount payable by him after calculating the discount as follows

Bill	Discount
Below 10000	NIL
10001 to 25000	10%
25000 or higher	12.25%
5. Input the number of days a hotel room is rented and display the bill amount. The tariff is as follows-
First 4 days, Rs. 2000 per day.
Next 3 days, Rs. 1600 per day.
Over a week, Rs. 1000 per day.
6. Display a menu asking the user if he wishes to display Digits from 0 to 9 or alphabets from A to Z. Ask the user's choice and program accordingly using switch.
7. Input a colour code and display the colour name. The codes can be 'R', 'G' or 'B' and their respective names are Red, Blue and Green.
8. Take necessary inputs. Ask the user if he wants to calculate the simple or the compound interest. Using switch, perform the calculation required by the user.
9. Input a character and display if it is a vowel or not.
10. Input marks in physics, chemistry and mathematics of a student. And display if admission is granted or not. The criteria for admission are that the average marks should be more than 75 or marks in any of the three subjects should exceed 90.

For/While

1. Input 10 numbers and display the sum and average of even numbers only.
2. Write a Java program to display the squares of all the numbers from 1 to 10. (1,4,9,16...100)
3. Write a program to display all uppercase alphabets, using a "for", "while" and a "do while" loop.
4. Input a number and display if it is prime or composite.
5. Input a number and display if is perfect or not. A number is said to be perfect if the sum of its factors (excluding the number itself) is equal to the number. E.g. if the number is 6, then the sum of factors of 6 (1,2, and 3) is 6.

6. Input a number and display its multiplication table till 10. The format of the output should be as shown below, assuming the input number is 9
 $9 \times 1 = 9$
 $9 \times 2 = 18$
 ... (and so on till 10)
7. Input number and display the sum of its digits.
8. Input a number and display if it is an Armstrong number or not. An Armstrong number is a number whose sum of the cube of each digit is equal to that number. E.g. $153=1^3+5^3+3^3=153$
9. Input a number and display its reverse.
10. Input a number and display all its factors.

Output Questions

Q1. Rewrite the code shown below using

- i) Switch
- ii) Ternary Operator

```
int c='A';
if(c=='F')
    System.out.println("Fail");
else
    System.out.println("Pass");
```

- i) while
- ii) Do while

```
for(int i=1; i<=5; i++)
{ System.out.println( i );
}
```

Q2. Show the output of the following –

```
int s=0;
for(int i=1; i<=5; i++)
{ s=s+i;
  System.out.println( i+" "+s );
}
```

```
int n=5;
while(n<1)
{ System.out.println( n );
  n--;
}
```

```
int n=5;
do
{ System.out.println( n );
  n--;
}while(n<1);
```

Q3. Show the output of the following –

```
int n=65;
System.out.println( n/10 );
System.out.println( n%10 );
System.out.println( (char)n );
int m= 5 + n * 10;
System.out.println( m );
```

```
int a=5;
int b=7;
int c=a++ + ++b;
System.out.println(a);
System.out.println(b);
System.out.println(c);
```

```
int n=5, m=10;
int x= m++ / n++;
int y= ++x * m;
System.out.println(x);
System.out.println(y);
```

Also see the solved examples and programs present in the book.

END