





System.out.print(i++);

}

- iii) What is the difference between switch case and if-else statement? [2]
- iv) Write the java expression for the following: [2]
- i)  $S = \frac{ad+bc}{bd}$                       ii)  $SI = PRT/100$
- v) What is the data type that the following methods return? [2]
- i) Math rint()                      ii) Math.sqrt()
- vi) Rewrite the following program segment using if-else statement: [2]  
grade=(marks>=90)? "A": "B";
- vii) Name the operator listed below: [2]
- a) <                      b) ++                      c) &&                      d) ?:
- viii) What is the difference between read() and readLine() methods of BufferedReader class? [2]
- ix) Evaluate the value of n if value of p = 5 and q = 19. [2]  
 $int\ n = (q-p) > (p-q) ? (q-p) : (p-q)$
- x) Define escape sequence. Give two examples [2]

### Section-B (60 Marks)

Attempt any four questions from this section.

3. Write a program to input a temperature and convert a given temperature from Fahrenheit to Celsius and vice-versa else an appropriate message should be displayed. [15]

$$\frac{c}{5} = \frac{f-32}{9}$$

4. Write a program to input the units of electricity consumed by a customer and print the bill amount to be paid according to the following criteria. [15]

Units consumed	Rate per unit
First 100 units	Rs. 4.5 per unit
Next 250 units	Rs. 5.5 per unit
Next 300 units	Rs. 7.0 per unit
Above 650 units	Rs. 9 per unit

5. Write a program to input a number and print whether it is an Armstrong number or not. An Armstrong number is a number which is equal to the sum of cubes of its digits. [15]

Example: 153

Output: It is an Armstrong number

6. Write a menu driven program to find the volume of sphere, cylinder and cone. [15]

Volume of Sphere =  $\frac{4}{3}\pi r^3$

Volume of Cylinder =  $\pi r^2 h$

Volume of Cone =  $\frac{\pi r^2 h}{3}$

7. Write a program to display the following series: [15]

i) 1, 3, 5, 7, 9, \_\_\_\_\_99

ii) 2, 4, 8, 16, \_\_\_\_\_256

8. Write a program to print the following pattern. [15]

a)	*	b)	5	5	5	5	5
	* #		4	4	4	4	
	* # *		3	3	3		
	* # * #		2	2			
	* # * # *		1				

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