

Answers to this paper must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed to write the answers.

This paper is divided into TWO sections.

Answer ALL the questions in Section A and any FOUR questions from Section B.

The intended marks for questions or parts are given in [].

SECTION - A [40 MARKS]

Attempt ALL questions from this section.

- Q.1- a. State any 4 features of JAVA. [2]
 b. Explain the term TOKENS and its types. [2]
 c. What is meant by precedence of operators? [2]
 d. Define keywords with example. [2]
 e. What is variable? [2]
- Q.2- a. What is the significance of main() in JAVA? [2]
 b. What is datatype conversion? Explain its types. [2]
 c. What is the use and syntax of ternary operator? [2]
 d. State the difference between = and == operator. [2]
 e. What is the size of int and char datatype? [2]
- Q.3- a. Give the output of following expressions:- [2]
 i. If $x = 50, y = 40$
 $x+ = y -- * 8 / x++ + y$
 ii. If $x = 6$
 $x = ++x * ++x \% 4$
- b. Write down the suitable datatype of following:- [2]
 i. Integer number
 ii. A fractional number
- c. Rewrite the program segment using TERNARY operator :- [2]
 if(sales > 1000000)
 incentives = 2000;
 else
 incentives = 1000;
- d. Write the difference between switch statement and if-else statement. [2]
- e. Correct the errors of the given program segment:- [3]
 Class Prog1
 {
 publicstatic void main(String args{ })
 {
 int a = 45.5;
 int b = 70, c = 65;
 sum = a + b
 diff = c - b;
 system.out.println(sum, diff)
 }
 }
- f. What are the values of x and y, when the following statements are executed? [2]
 int a = 63; b = 36;
 boolean x = (a > b) ? true : false;

- g. Write the JAVA expression for following. [2]
- a. $\frac{(a+b)^n}{\sqrt{2+b}}$
- b. $f = \frac{uv}{(u+v)}$
- h. What is the default value of following data type? [3]
- int
 - float
 - boolean

SECTION - B [60 MARKS]

Attempt any FOUR questions from this Section.

Each program should be written using *variable description/mnemonic* codes such that the logic of the program is clearly depicted.

Flow charts and algorithms are not required.

- Q.4- a. Distinguish between application software and system software. [5]
 b. What are icons? Describe any 3 commonly used icons. [5]
 c. What do you understand by a computer network? Write any 2 advantages of it? [5]
- Q.5- a. What is cloud computing? Explain briefly. [5]
 b. Mention the steps required to protect your computer from virus attack. [5]
 c. i. What do you understand by Computer Ethics? [5]
 ii. Define the term Hacking.
- Q.6- Write a program in which you store the employee name and basic salary. Calculate HRA @ 15 % of basic salary, DA @ 70 % of basic salary, TA @ 2 % of basic salary, PF @ 10 % of basic salary and net salary = basic + HRA + DA + TA - PF. [15]
- Q.7- A cloth showroom has announced the following festival discount on purchase of items based on the total cost of items purchased : [15]
- | Total Cost | Discount |
|-----------------|----------|
| Less than 2000 | 5 % |
| ₹ 2001 - 5000 | 25 % |
| ₹ 5001 - 10,000 | 35 % |
| Above 10,000 | 50 % |
- Write a program to input the total cost and display the amount to be paid by the customer after availing the discount.
- Q.8- a. Write a program to find the greatest of two numbers using the ternary operator. [7]
 b. Write a program that accepts the value from the user, and check whether it is character, digit or a special character. [8]
- Q.9- Write a program using SWITCH-CASE to accept a number from the user and print the corresponding name of the week day. [15]
 For Eg. 1 for SUNDAY and so on.