

City International School, Mumbai

SECOND PRELIMINARY EXAMINATION 2018 – 2019

Date : 16/01/2019

Marks : 100

Std : X

Subject : Computer Applications

Time : 2 hrs

The first fifteen minutes are to spent on reading the paper.

The time mentioned above is the time to write the paper.

This paper consists of 5 pages the paper is divided in two sections.

Answer all questions from section A and any 4 from section B.

Section A is of 40 marks and section B is of 60 Marks.

Marks of questions are given in brackets ().

SECTION – A (40 Marks)

Attempt all questions

Question 1

Answer the following questions.

- Name any two OOP's principles. (2)
- Name two types of constructor. (2)
- Give two differences between switch statement and if- else statements. (2)
- What is a literal? (2)
- Write Java expression of $\sqrt{2as + U^2}$ (2)

ARJUN BOOK DEPOT
Shop No. 4, ...
Thakur ...
Mumbai - 400 101.
Mob. 9921263050.

Question 2

Answer the following questions.

- State difference between entry controlled loop and exit controlled loop. (2)
- Explain meaning of break and continue statement. (2)
- Differentiate between islowercase () and touppercase () method. (2)
- Name any two access specifier. (2)
- Define endswith () and startwith (). (2)

Question 3

Answer the following questions.

- State two difference between String and String Buffer Objects. (2)

- b. What is an exception? (2)
- c. What are library classes? Give an example. (2)
- d. Write a function to check whether a token of scanner class is a text or not. (2)
- e. Write the purpose of function boolean hasNextBoolean(). (2)

Question 4

Answer the following questions.

- a. What are relational operators? Give example. (2)
- b. What is a method substring () used for. (2)
- c. What are the advantage of using function in a program. (2)
- d. Mention the levels of scope and visibility offered by Java. (2)
- e. Give functions of keywords using with main () method. (2)

SECTION - B (60 Marks)

Attempt any 4 questions from this section.

Question 5

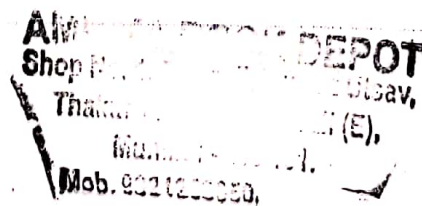
Using switch statement, write a menu driven program for following: (15)

- a. To find and display the sum of the series given below:
 $S = x^1 + x^2 + x^3 + x^4 + x^5 + \dots + x^{20}$ (where $x = 2$)

- b. To display the following series:
 1 11 111 1111 11111

Question 6

Write a program to create an array to store 10 integers and print the largest integer and the smallest integer in that array. (15)



Question 7

Write a program to accept a string:
 Convert the string to uppercase.
 Count and output the number of double letter sequences that exist in the string.
 Sample Input: "SHE WAS FEEDING THE LITTLE RABBIT WITH AN APPLE".
 Sample Output : 4 (15)

Question 8

- a. Write a program to input any string and print the same in reverse order. (7)
- b. Write a program using string function to input any word and print the same in alphabetical order. (8)

Question 9

Write a program to accept a word and convert it into lowercase if its in uppercase, and display the new word by replacing only the vowels with the character following it. (15)

Example:

Sample Input : computer

Sample Output : cpinputfr

Question 10

Design a class to overload a function series () as follows: (15)

- a. double series (double n) with one double argument and returns the sum of the series.

$$\text{sum} = \frac{1}{1} + \frac{1}{2} + \frac{1}{3} \dots \dots \dots + \frac{1}{n}$$

- b. Double series (double a, double n) with two double arguments and returns the sum of the series.

$$\text{sum} = \frac{1}{a^2} + \frac{4}{a^5} + \frac{7}{a^8} \dots \dots \dots + \frac{10}{a^{11}}$$

to n terms.
