

City International School

ANNUAL EXAMINATION 2015 – 2016

Date : 15/03/2016

Marks : 100

Std : IX

Subject : Computer Applications

Time : 2 hrs

SECTION A (40 MARKS)

(Attempt all questions.)

Q. 1 Answer the following questions

- a. Write different ways of using comments in Java. (2)
- b. What do you understand by Implicit and Explicit type conversion? (2)
- c. Why is an object called an instance of a class? (2)
- d. What is a ternary operator? Explain with the help of an example. (2)
- e. Write the difference between while and do-while loop. (2)

Q. 2 Answer the following questions.

- a. What do you understand by pure and impure function. (2)
- b. What does the following statement mean? (2)
 - i. Employee staff = new Employee();
- c. What do you understand by Java Virtual Machine (JVM)? (2)
- d. Explain any two visibility modes available in Java. (2)
- e. Differentiate between Arithmetical Expression and Arithmetical Statement (2)

Q. 3 Answer the following questions.

- a. Give the difference between an object and a class (2)
- b. What is BlueJ ? Mention any two features of BlueJ. (2)
- c. What do you mean by constant? Explain with an example. (2)
- d. Write an expression in Java for (2)
$$Z = \frac{5x^3 + 2y}{x+y}$$
- e. What do you mean by nested loop? In what situation it can be used? (2)

Q. 4 Answer the following questions.

- a. Which OOP principle implement function overloading ? Explain. (2)
- b. Who developed Java? What was it initially called? (2)
- c. What do you understand by Boolean variable data type? (2)
- d. What will be the value of a=7?
 $(a++) + (++a) + a$ (2)
- e. What are Identifiers? Name the two types of Identifiers. (2)

SECTION B (60 MARKS)

Attempt any 4 questions

Q. 5 Write a program to accept 10 numbers. Print the sum of all the negative numbers. (15)

Q. 6 Write a program to find the sum of all natural numbers from 1 to n. (15)

Q. 7 Write a program in Java to enter a numbers and display the sum of its digits. (15)

Sample Input : 642

Sample Output : 12 (6+4+2 = 12)

Q.8 Write a program to find the sum of the series. (15)

$$S = 1 - a + a^2 - a^3 + \dots + a^{10}$$

Q. 9 Write a program to find the sum of the series: (15)

$$S = a - \frac{a}{2} + \frac{a}{3} - \frac{a}{4} + \dots - \frac{a}{20}$$