GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ

WORKSHEET -01

SESSION 2020-2021

CLASS 10 C, D, E, F

SUBJECT: <u>COMPUTER APPLICATIONS</u>

<u>Instructions:</u>   Parents are expected to ensure that the student spends two days to read and understand the chapters according to the book and website referred and thereafter answer the given questions.

<u>Reference Book:</u>   Logix Class 9 or 10 (Kips Publications)

<u>Website:</u> w3schools.com

TOPIC - <u>VALUES AND TYPES</u>

<u>Answer the following questions:</u>

1. What is the Unicode Character Set?

2. What is meant by token? Name the tokens available in Java.

3. Can an identifier name be the same as that of a keyword? Give valid reason.

4. What is a data type?

5. State the two kinds of data types. Give one example of each data type.

6. What is the size and range of *int* data type?

7. What is a Literal?

8. State one difference between floating point literals, float and double.

9. What is null literal?

10. What are punctuators? Give any three examples.

11. What are comments?

12. Which of the following are valid comments?

    a. /*comment*/

    b. /*comment

    c. //comment

d. */comment*/

13. Define variable.

14. What do you mean by the scope of a variable?

15. What is the significance of 'final' keyword?

16. What are the advantages of using constants?

17. Write a class with the name of an employee and basic pay as its data members. Find the gross pay of an employee for the following allowances and deductions. Use meaningful variables:

- Dearness allowance = 25% of the basic pay

- House Rent Allowance = 15% of the basic pay

- Provident fund = 8.33% of the basic pay

- Net pay = Basic pay + Dearness Allowance + House Rent Allowance

- Gross Pay = Net – Provident fund

TOPIC - OPERATORS

Answer the following questions:

1. Define operator.

2. Give one point of difference between unary and binary operators?

3. What are arithmetic operators?

4. What are increment/decrement operators?

5. What will be the output of the following code segments:

a. int a=0,b=30,c=40;

a= - -b+ c++ +b;

System.out.println("a="+a);

b. int k=5, j=9;

k+=k++ - ++j + k;

System.out.println("k="+ k);

System.out.println("j="+ j);

6. What is the difference between the / and % operator?

7. What is the output of the following:

a. System.out.println("Four:"+4+2);

   b. System.out.println("Four:"+(2+2));

8. What are Relational operators?

9. What is the use of Logical operators?

10. What is assignment operator?

11. State the difference between == operator and = operator.

12. What is the use and syntax of ternary operator?

13. Operators with higher precedence are evaluated before operators with relatively lower precedence. Arrange the operators given below in order of higher precedence to lower precedence.

   i.   &&

   ii.   %

   iii. >=

   iv.   ++

14. What is the purpose of new operator?

15. What is the use dot(.) operator?

16. What do you mean by an arithmetic expression?

17. What do you understand by Boolean expression?

18. What is meant by implicit and explicit type conversion?

19. What are the types of casting shown by the following examples?

   a. double x=15.2;

      int y=(int)x;

   b. int x= 12;

      long y=x;

20. Write a program that takes the radius of a sphere and print its volume and surface area. Use the following formulas in which, r represent the radius of sphere.

   Volume=4/3 PI r^3

   Surface Area= 4 PI r^3

21. Write a program that takes a number and print its reverse.

   Example: n=465, its reverse is 564

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