**ARMY PUBLIC SCHOOL, DHAULA KUAN**

**UT 1 (2024-25)**

**CLASS: XI**

**SUBJECT : COMPUTER SCIENCE**

**TIME: 1 Hr 30 Min SET 1 M.M: 40**

General Instructions:

* All programming questions to be answered using Python language only.
* All questions are compulsory.

1. Which operator is used for floor division in Python? [1/2]

a) / b) // c) % d) None of the mentioned

2. Escape sequences are used for [1/2]

a) Indenting text b) Creating special characters

c) Converting integers to strings d) None of these

3. What is the return type of function len()? [1/2]

a) int b) float c) bool d) str

4. What is the value of the expression : [1/2x2=1]

a) 8//4/2 b) 8/(4//2)

5. Identify the data types of following literals: [1/2x4=2]

a)12.45 b) False c) “False” d) 0o7

6. Give the sizes of the following constants :

a) “Hello” (b) “a\nb” (c) “Python’s” (d) “\\/\/\/\\” [1/2x4=2]

7. Write the type of tokens from the following:

a) is (b) roll\_no (c) < (d) break [1/2x4=2]

8.Write the output for the following logical expressions:

a) 0 and 14 or not 12 or 0 b) (‘ ‘ >’’ ) or (734 and 0) [1/2x2=1]

9. Write the following real constants in exponent form: [1x2=2]

a) 3.14159 b) 2.71828

10. Find out the error(s) in the following code. [1x2=2]

(a) 90=age (b) a=30

x=5 b=a+b

Print age Print (sum of a and b)

11. Convert the following from one number system to another number system as

specified: [1x4=4]

a) (1011.11)2 - ( )10 c) (10111010.101)2 – ( )8

b) (57.6)8 – ( )2 d) (34A.B)16 – ( )10

12. Write logical expressions for the following: [1x2=2]

1. A number is between 10 and 20 (inclusive).
2. A person is either a student or a teacher.

13.Write a python statement for the following using operators in Python: [1]

(7x2y3 ) (8x3y4)

14.Write a single print statement to print the following: [1]

5

10

9

15. Write the corresponding Python assignment statements: [1+1=2]

1. Assign the quotient of x divided by y to a variable result..
2. Assign the strings "John", "Doe", and "Smith" to variables first\_name, middle\_name, and last\_name respectively.

16. What will be returned by Python as a result of the following statements: [1.5]

(a) >>>type(float(5)) (c) >>>print(type(str(5)))

(b) print('one'+'Two'\*2)

17. Explain the purpose of comments in Python. Provide an example of each: single-line comment and multi-line comment. [1.5]

18. Write a Python program to print the following : [1+11/2 +11/2]

1. Circumference of a pizza after taking it’s radius as an input from the user.
2. Length of wire required to the area of a triangle taking H and B as inputs from the user.
3. The temperature input in Fahrenheit to Celsius. (Hints.C = (F-32) x 5/9 )

19. What are the values of the following expressions: [1.5]

(a) 5\*\*(2\*\*3) (b) 3\*\*3\*\*2 (c) (4\*\*2)\*\*2

20. Predict the output of the following: [1.5+1.5]

1. a,b=16,5 b) job, salary = ”Manager” ,67000

a,b,a=a+3,b-5,a+6 print(job, “will get “, salary , “now”, end=’$’)

print(a,b) print(“You will be”, job , ” in”, 2025 )

21. (a) What is the need of ROM? [1+1/2+1/2=2]

(b) Full form of RAM is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:

(c) A computer takes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it and gives \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(i). process, input, output (ii). input, output, process

(iii). input, process, output (iv). None of the above

22. (a) List and define different types of tokens used in Python. [1+1/2+1/2=2]

(b) How many operands are there in the following arithmetic expression?

23\* 4 + 56 – 15/3

(c) Which operator returns the remainder of the operands?

(i) / (ii) // (iii) % (iv) \*\*