## Capital Public School

First term examination: 2024-25

Class: XI

Computer Science (083)

Time Allowed: 3 hours General Instructions:

- Maximum Marks: 70
- This question paper contains five sections, Section A to E.
   All questions are compulsory.
- 3. Section A has 21 questions carrying 01 mark each.
- 4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
- 5. Section C has 03 Short Answer type questions carrying 03 marks each.
- 6. Section D has 04 Long Answer type questions carrying 04 marks each.
- 7. Section E has 02 questions carrying 05 marks each.
- 8. All programming questions are to be answered using Python Language only.

	SECTION A	
1	Which of the following is not a computational thinking technique?	1
	a. Coding b. decomposition c. abstraction	
2	RAM and ROM are type ofmemory.	1
3	The binary equivalent of the decimal number 10 is	1
4	Which of the following is not a valid encoding scheme for characters?  (a) ASCII (b)ISCII (c) Unicode (d)ESCII	1
5	It is aLogical Gate  A B  out	1
6	The Boolean equation express the law A+(B+C) = (A+B)+C	1
	(a) Associative Law (b) Indempotence law (c) Involution law (d) Commutative Law	
7	Name two common tools for developing an algorithm.	1
8	Who developed python programming language?	1
9	The input() returns the value as type.	1
10	Python is a_sensitive language.	1
11	Name any one jump statement.	1
12	Function range (3) will yield an iterable sequence like	1
13	How many types of data types in python?	1
14	How many types of error are there in python?	1
	a. 1 b. 2 c. 3 d. 4	
15	What is the output of print(10/2)?	1
	a. 5 b. 5.0 c. 2.0 d. 2.5	
16	Which Python built-in function returns the unique number assigned to an object.	1
17	a. id() b. identity() c. ref() d. type()	1
17	The smallest unit of your program.	1
10	a. token b. character set c. set d. maping	1
18	How many types of loop in python?	1

19	Symbol used to end the if statement:	1
	a.; b c.: d	
20	An empty/null statement in python is:	1
	a. go b. pass c. fail d. over	
21	What abandons the current iteration of the loop?	1
	a. continue b. break c. stop d. infinite	
	SECTION B (07 QUESTIONS)	
22	State any two differences between compiler and interpreter?	2
23	What is token? How many types of token?	2
24	What are variables? Write main component of variables.	2
25	What is escape sequence?	2
26	Find output	2
20	for i in range(1,16):	_
	if $i\% 3 = 0$ :	
	print(i)	
27	Write a flowchart to calculate the area of rectangle.	2
28	Write Boolean expression of the given logical gate?	2
	A °	
	SECTION C (03 QUESTIONS)	
29	Explain the functional components of computer with the help of a block diagram	3
30	Convert the following (a) (423)10 –( )16 (ii) (1010111010)2 –( )16 (iii) (266)10-( )8	3
31	(a) (423)10 –( )16 (ii) (1010111010)2 –( )16 (iii) (266)10-( )8 Explain the different types of errors with example.	3
31		3
	LONG TYPE QUESTIONS  SECTION D (04QUESTIONS)	
32	Rewrite the following code using for loop.	4
	while num>0:	
	count+=1	
	sum+=num	
	num-=2	
	if count==10:	
	print(Sum/float(Count)	
22	break	А
33	Write a program to print the given series.	4
	0,1,2,3,6,n terms	_
34	a. Write a program to print the following pattern:	4
	1. 1	
	2 1 3 2 1	
	4321	
	54321	
	2. *	
	* *	
	* * *	
	* * * *	
	* * * *	
		1

35	Write a program in python to check if a given number is a perfect number or not.	4			
	SECTION E (02 QUESTIONS)				
36	Write a program in python to check if a given number is an armstrong number or not.  OR	5			
	Write a program to print the following:				
	a. 0,7,63,n				
	b. 1,5,3,17,n				
37	Find Output:	5			
	a,b,c=1,1,2				
	d=a+b				
	e=1.0				
	f=1.0				
	g=2.0				
	h=e+f				
	print(c==d)				
	print(c is d)				
	print(g==h)				
	print(g is h)				
	print(d,h)				