ARMY PUBLIC SCHOOL SHANKAR VIHAR

Class XII Holiday Homework Computer Science

Find the output of the following questions

1.	x=5
	y=10
	if x<y:
	  print(x+y)
	else:
	  print(x*y)

2.	Predict the output for value of:- (a) x=15 (b) x=8
	if x<(x%3):
	  print(x**3)
	elif x%4>=1:
	  print(x*4)
	else:
	  print(x%10)

3.	str="InDian"
	if str[0]<="B":
	  print(str[0]*2)
	elif str[1]>="I":
	  print(str[1]*3)

4.	str="InDian"
	if str[0]>="D" and str[1]<="N":
	  print(str[0]*2)
	elif str[3]>="I" or str[4]>="A":
	  print(str[3]*3)

5.	x="NEW World" print(x[:1], x[:-1]) print(x[1:-3], x[-5:-2])
6.	p=7//3 q=p*5 r=p+q p += p+q+r print(p, q, r)

7.	T=("sun", 3, "tue", 5, "thru", 7)
	if "sun" not in T:
	  for i in range (0,2):
	  print(T[i])
	else:
	  for i in range (2,6):
	  print(T[i])

8.	p=20 q=10 p*=q//2 q+=p+q**3 print(p,q)

9.	L=[10, 20, "OK", "GOOD", 500]
	X=len(L)
	if L[0]<X:
	  for i in L:
	  print(i)
	else:
	  for i in L:
	  print(i+i)

10.	L1=[1, 2, 3, 2, 1]
	L2=[5, 4, 3, 2, 1]
	X1=len(L1)
	X2=len(L2)
	if X1<=X2:
	  for i in range(0,X1-2):
	  print(i, "*")
	elif X1>X2:
	  for i in range(0, X2-1):
	  print(i, ",")

Identify and correct the errors in the following python codes. Underline the corrections made.	

11.	a=100
	200=b
	IF a>b:
	  print("100")
	ELSE
	  print(A*100)

12.	A=int("Enter value of A")
	B=int(input("Enter value for B"))
	for i in range [0,5]
	  if A=B:
	  print(A)
	  else:

	Print(B)

13.	a=int{input("Enter 1st No.")}
	b=int(input("Enter 2nd No."))
	c=int(input("Enter 3rd No."))
	
	if a>b and a>c
	  print("a is >")
	if b>a and b>c:
	  Print("b is >")
	if c>a and c>b:
	  print(c is >)

14.	x = 20 x =+ 5 x - x = 10 Print(x) x, y = x-1 print(x , y)

15.	a, b, c = 10, 20, 30
	a, b = b, c, a
	
	if a+b<c:
	print(A+b+c)
	elif:
	  Print(a+b+c)

Write python Program (Selection Based Questions)	
1.	WAP in python to accept any three numbers from the user and display the largest among them.
2.	WAP in python to accept any three sides of triangle from the user and display whether it is “Equilateral”, “Isosceles” or “Scalene”.
3.	WAP in python to accept the salary of an employee of ABC company and determine his/her post on the basis of conditions given below:

Salary	Post
<=10,000	Clerk
10,001 to 20,000	Operator
20,001 to 35,000	Assistant
35,001 to 50,000	Manager
>50,000	Invalid Post

4.	WAP in python to accept a number from the user between(1-7) and display the appropriate Day of week. E.g. 1 for “Sunday”, 2 for “Monday”, etc.
5.	WAP in python to accept a number from the user and display whether even or odd as well as positive or negative simultaneously. E.g. if No=4, then output will be: Even Positive
Output Questions (Loop Based)	
1.	for i in range(5,-1,-1): print(i)
2.	str = "India is a great country" L = str.split("i") for i in L: print(i,end=" ")

3.	MSG = ["30","10","40","20"]
	STEP = 3
	SUM = 0
	for X in [3,5,7,9]:
	  T = MSG[STEP]
	  SUM = float(T) + X
	  print(SUM)
	  STEP-=1

4.	L=[5,4,3,2,1] for i in range (-5,2): print(L[i],"*")

5.	for i in range(1,5):
	  for j in range(1,i+1):
	  print(j, end=",")
	  print()

6.	X="HELLO"
	for i in range(len(X)):
	  for j in range(0,i+1):
	  print(X[j],end="*")
	  print()

7.	M1="ComPUtEr" M2="sCIenCe"

	M3=""
	for I in range(0,len(M2)+1):
	  if M1[I]>="A" and M1[I]<="M":
	  M3=M3+M1[I]
	  elif M1[I]>="N" and M1[I]<="Z":
	  M3=M3+M2[I]
	  else:
	  M3=M3+"#"
	print(M3)

8.	str="STRING"
	cnt=3
	while True:
	  if str[0]=='S':
	  str=str[2:]
	  elif str[-1]=='N':
	  str=str[:2]
	  else:
	  cnt+=1
	  break
	print(str)
	print(cnt)

9.	s="India@2020"
	l=len(s)
	m=""
	for i in range(0,l):
	  if(s[i].isupper()):
	  m=m+s[i].lower()
	  elif s[i].isalpha():
	  m=m+s[i].upper()
	  else:
	  m=m+"##"
	print(m)

10.	T1="AISSCE#2020"
	NEW=""
	X=0
	while X<len(T1):
	  if T1[X]>="0" and T1[X]<="9":
	  Temp = int(T1[X])
	  Temp += 1
	  NEW += str(Temp)
	  elif T1[X]>="A" and T1[X] <="Z":

	NEW += (T1[X+1])
	  else:
	  NEW += "*"
	  X+=1
	print(NEW)

11.	100=Var for i in range(1,5) print(var, "::", i) Print("Loop ends")
12.	x = "abcdef i = "a" while i IN x: print(I, END=" ")

13.	Y=integer(input("Enter 1 or 10"))
	if Y==10:
	for Y in range(1,11)
	  Print(Y)
	Else:
	  for m in range(5,0,-1):
	  print(m)

14.	M="1"
	While M>=5
	  print("Value of M:",M)
	  M=+1

15.	S=""GOOD Temp"" for Y in range[0,4]: Temp=string(S)
Flow of Control (Iterational statements, Loops)	
1.	WAP in python to accept any two numbers from the user and print the numbers lies between them.
2.	WAP in python to accept a number N from the user and print the following output: 1 21 321 4321
3.	WAP in python to accept a number from the user and print whether it is an Armstrong number or not. Hint. An Armstrong number is

	one whose sum of cubes of digits is equal to that number itself. E.g. $153 = 1^3 + 5^3 + 3^3$
4.	WAP in python to accept the number of the Terms N of the following series and calculate & display it's sum: 1+11+111+1111+…….+N terms
5.	WAP in python to accept a string from the user and tell whether it is palindrome or not.

Text File Handling

1. Differentiate between a text file and a binary file.
2. What is a data file in python?
3. Count the number of characters from a file. (Don't count white spaces)
4. Count the number of words in a file.
5. Count number of lines in a text file.
6. Count number of vowels in a text file.
7. Count the number of 'is' word in a text file.
8. Write a program to take the details of book from the user and write the record in text file.
9. Write a program to take the details of book from the user and write the record in the end of the text file.
10. Write a python code to find the size of the file in bytes, number of lines a number of words.
11. Write code to print just the last line of a text file "data.txt".
12. A text file "Quotes.Txt" has the following data written in it:
13. Living a life you can be proud of
14. Doing your best
15. Spending your time with people and activities that are important to you
16. Standing up for things that are right even when it's hard Becoming the b
17. version of you
18. Write a user defined function to display the total number of words preser in the file.
19. Write a method in python to write multiple lines of text contents into a tex file myfile.txt
20. Write a user defined function in Python that displays number of lines starting with 'H' present in the text file Poem.txt.
21. A text file named MESSAGE.TXT contains some text. Another text
22. file named SMS.TXT needs to be created such that it would store only the first 150 characters from the file MESSAGE.TXT.
23. Write a user-defined function LongToShort() in C++ that would perform the above task of creating SMS.TXT from the already existing file MESSAGE.TXT.
24. Write a statement in Python to open a text file WRITEUP.TXT so that new content can be written in it.

Binary File Handling

QA	**Fill in the blanks**
1	_____function is use to convert string into binary form
2	_____function is used in binary mode to set read pointer at desired place.
3	_____is the process of converting structure to byte stream before writing to file.
4	_____Use to write different objects(like list, touple, dictionary, class) into file
5	_____Use to read different objects(like list, touple, dictionary, class) from file
6	_____ used to get the byte position from beginning of the location in the file
7	**Consider the following code and complete the missing statement.** import pickle f2=open('sdata.dat','rb') d1=_____ print(d1)
8	Unpickling is done by_____.
9	**Consider the following code and complete the missing statement.** import pickle fl=open('sdata.dat','wb') roll=int(input('Enter your roll number')) name=input('Enter your name') dt={'Roll':roll,'Name':name}

	_____#statement to write dictionary into file f1.close()
10	The _____method reads 'n' characters from the file.
QB	**State whether following statements are True/False**
1	A binary files store information in ASCII or Unicode character
2	The default file open mode is write mode.
3	In binary file there is no delimeter for a line.
4	An absolute path always begins with the root folder
5	Opening file in append mode erases previous data.
QC	**Very Short type Question.**
1	Give one difference between text file and binary file.
2	Write python statement to open file "stud.dat" for writing purpose in binary file.
3	Write python statement to open file "stud.dat" so that new content can be added at the end of file.
4	Write code to store any message in binary files
5	write code to display that message from binary file.
QD	**Multiple choice questions:**
1	Which module is required to use built in function dump() (a) Math (b)flush (c)pickle (d)unpickle
	Which of the following function is use to write data in binary mode? (a)write (b)output (c)dump (d)send
3	To read 2 character from file object f1 command should be (a)f1.read(2) (b)f1,read() (c)f1.readline() (d) f1.readlines()
4	To get byte position from the beginning of file (a)seek (b)tell (c)read (d)write
5	the file pointer, used to go to particular position (a)seek (b)tell (c)read (d)write
	Assessments/Practical based question/cbse based question

1.	Consider an employee data, Empcode, empname and salary. Write python code to create binary file and store their records.
2.	Write python code to update name of employee.
3	Write python code to copy employee data from file emp.dat to empback.dat
4	Write python code to write and display any message in binary file by using pickle module.
5	Write python code to read and display all the record stored in binary file.
6	Write python code to insert any record at last position

Q1 A binary file "Book.dat" has structure [BookNo, Book_Name, Author, Price].

i. Write a user defined function CreateFile() to input data for a record and add to Book.dat .

ii. Write a function CountRec(Author) in Python which accepts the Author name as parameter and count and return number of books by the given Author are stored in the binary file "Book.dat"

Q2 A binary file "STUDENT.DAT" has structure (admission_number, Name, Percentage). Write a function countrec() in Python that would read contents of the file "STUDENT.DAT" and display the details of those students whose percentage is above 75. Also display number of students scoring above 75%

Write a function SCOUNT( ) to read the content of binary file "NAMES.DAT" and display number of records (each name occupies 20 bytes in file) where name begins from "S" in it.

For. e.g. if the content of file is:

SACHIN
AMIT
AMAN
SUSHIL
DEEPAK
HARISHANKER

Function should display

Total Names beginning from "S" are 2