 **Indian School Al Wadi Al Kabir**

**Assessment – II-RETEST**

**COMPUTER SCIENCE (Code: 083)**

CLASS : XI Max. Marks:70

Date: 14/12/2023 Time: 3 hours

**General Instructions:**

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 02 questions carrying 04 marks each.
7. Section E has 03 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.

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|  | **SECTION A** |  |
| 1. | Which of the following acts as an interface between a device and the operating system?   1. System Utility 2. Language Translator 3. Device Drivers 4. Anti-virus software | 1 |
| 2. | Which of the following is an invalid keyword in Python?   1. False 2. return 3. non\_local 4. None | 1 |
| 3. | Pick the odd one out.   1. >= 2. = = 3. != 4. \*= | 1 |
| 4. | What will be the output of the following statement?  import math  print(25//math.fmod(20,3)+3\*2-11%3)   1. 14.33 2. 18.0 3. 16.0 4. 22.0 | 1 |
| 5. | Consider the given expression  17>14 and 16<13 and 10==10 or 17>14 and not 20  Which of the following will be the correct output, if the given expression is evaluated ?   1. True 2. False 3. None 4. NULL | 1 |
| 6. | \_\_\_\_\_\_\_ is non-volatile and has large storage capacity.  1. ROM  2. RAM  3. REGISTERS  4. HARDDISK | 1 |
| 7. | Given the following Tuple  Tup = (10,20,30,50)  Which of the following statements will result in an error?   1. print(Tup[0]+50) 2. Tup.pop(2) 3. print(Tup[1:2]) 4. print(len(Tup)) | 1 |
| 8. | What will be the output of the following Python code?  S=”Wadi kabir@Muscat@53”  A=S.split(“@“)  print(A)   1. [‘Wadi kabir’,’@’, ‘Muscat@53’] 2. [‘Wadi kabir’,’@’, ‘Muscat’, ‘@’, ‘53’] 3. [‘Wadi kabir’, ‘Muscat’,’53’] 4. [‘Wadi kabir’, ‘Muscat @ 53’] | 1 |
| 9. | Decimal equivalent of the Octal number 324 is \_\_\_\_\_\_\_\_\_\_  a. 213  b. 212  c. 219  d. 222 | 1 |
| 10. | Write the output of the following code :  A = {1 : "One", 2 : "Two", 3 : "Three"}  print(A[2] + A[1])  a. Error  b. TwoOne  c. 21  d. {1 : “One”, 2 : “Two”, 3 : “Three”} | 1 |
| 11. | Name the Boolean theorem A+ B = B + A  a. Associative law  b. Complementarity law  c . Involution law  d. Commutative law | 1 |
| 12. | Evaluate the following expression and identify the correct answer:  import math  a= math.ceil(20.1) - math.floor(14.99)+math.pow(4,2)  print(a)   1. 21.0 2. 23.0 3. 24.0 4. 25.0 | 1 |
| 13. | Suppose a dictionary D1 is declared as D1 = {“LG”:145, “Sony”:185, “Ikon”:115} which of the following are correct?  a) print(D1.value)  b) D1.update("Sony":175)  c) print (D1.key ())  d) D1.update({"Sony":175}) | 1 |
| 14. | X + 1 = \_\_\_\_\_\_\_\_\_\_\_\_\_  a. X’  b. 0  c. 1  d X | 1 |
| 15. | What will be the result of the following code?  >>>d1 = {“abc” : 5, “def” : 6, “ghi” : 7}  >>>print (d1[0])  (a) abc  (b) 5  (c) {“abc”:5}  (d) Error | 1 |
| 16. | Write the output of the following code :  colors=["violet", "indigo", "blue", "green", "yellow", "orange", "red"]  del colors[4]  colors.remove("blue")  colors.pop(3)  print(colors)   1. ['violet', 'indigo', 'orange', 'red'] 2. ['violet', 'green', ‘yellow’, 'red'] 3. ['violet', 'indigo', 'green', 'red'] 4. ['violet', 'indigo', 'green', ‘orange’, 'red'] | 1 |
| 17. | Which of the following logic expression represents the logic diagram given below?    a) Q = (A+B) ((B.C)+(B+C))  b) Q = (A.B) + ((B+C)(BC))  c) Q = (A.B) + (B+C) + (BC)  d) Q = (A+B) ((B+C)+(B+C)) | 1 |
| 18. | Find the operator which cannot be used with a string in python from the following.   1. + 2. in 3. \* 4. // | 1 |
|  | **SECTION B** |  |
| 19. | Find the output of the following code.  Num = 20  Sum = 0  for i in range (10, Num, 3):  Sum+=i  if i%2==0:  print (i\*2)  else:  print (i\*3)  print(Sum) | 2 |
| 20. | Explain Application software. Give examples. | 2 |
| 21. | If the following code is executed, what will be the output of the following code?  Topic="SolarMarketingMedia"  print(Topic[5:10])  print(Topic[-5:]) | 2 |
| 22. | What are the possible outcomes executed from the following code? Also, specify the maximum and minimum values that can be assigned to variable COUNT.  import random  TEXT = "CBSEONLINE"  COUNT = random.randint(0,3)  C=9  while TEXT[C] != 'L':  print(TEXT[C]+TEXT[COUNT],end="\*")  COUNT= COUNT + 1  C = C-1  (i) EC\* NB\* IS\*  (ii) NS\* IE\* LO\*  (iii) ES\* NE\* IO\*  (iv) LE\* NO\* ON\* | 2 |
| 23. | Do the following:  1. (723)8 = ( \_\_\_\_\_\_\_\_\_\_\_\_) 16  2. ( BCD)16  = ( \_\_\_\_\_\_\_\_\_\_\_\_\_) 2 | 2 |
| 24. | Explain with examples the difference between a list and a dictionary. | 2 |
| 25. | i. Given is a Python list declaration:  L=[23,43,45,76,78,89,10,33,42]  What will be the output of :  print(L[3:-3])  ii. Write the output of the following code:  d1={‘a’:32,’b’:40,’c’:50}  d2={‘d’:90,’c’:80,’e’:45}  d1.update(d2)  print(d1)  print(d1.get(‘c’)) | 2 |
|  | **SECTION C** |  |
| 26. | Find the output of the following :  tuple1 = (11, 2, 3, 4, 5 ,6)  list1 =list(tuple1)  new\_list = []  for i in list1:  if i%2!=0:  new\_list.append(i\*2)  new\_tuple = tuple(new\_list)  print(new\_tuple) | **3** |
| 27. | Find the output of the following program:  lis = [22, 11, 32, 45, 54, 34, 78]  del lis[1:7:2]  print ("List elements after deleting are : ")  for i in range(0, len(lis)):  print(lis[i],end = “@“)  lis[i]=lis[i]+5  lis.extend([65,92,12])  lis.pop()  lis.insert(1,15)  print ("\nList elements after manipulation are : ")  for i in range(0, len(lis)):  print(lis[i],end=’#’) | 3 |
| 28. | Predict an output of the following:  List1=[23,28,21,26,23,28,23]  List1.insert(3,28)  print(List1.index(26))  print(List1.count(28))  List1.pop(List1.count(23))  print(List1) | 3 |
| 29. | Find the output of the following.  mystr='IsWk-23'  newstr=' '  count=0  for i in mystr:  if count % 2 == 0 :  newstr=newstr+str(count)  else:  if i.islower():  newstr=newstr+i.upper()  else:  nerstr=newstr+i\*2  count+=1  print(newstr) | 3 |
| 30. | Write the output of the following Python code.  subject=[‘DELHI’, ‘CHENNAI’, ‘MUMBAI’,’BANGALORE’,’GOA’]  for i in range(0,5):  if ‘N’ in subject[i]:  subject[i]=subject[i][:3]  else:  subject[i]=subject[i][3:]  print(subject) | 3 |
|  | **SECTION D** |  |
| 31. | a. Write a program to input a number and find the sum of its digits.  b. Write a program to find the sum of the series  S=1+X1/3+ X3/5+X5/7+…..+XN/N+2 where X and N is entered by the user | **4** |
| 32. | Write a Python program to input the billamt amount made by a customer, calculate and display discount amount and net amount payable as per the following criteria:   |  |  | | --- | --- | | Shopping amount | Discount | | More than 50000 | 25% of billamount | | Between 30000 and 50000 | 18% of billamount | | Between 20000 and 29999.9 | 8% of billamount | | Less than 20000 | 5% of billamount |   Net amount payable = billamount – discount | 4 |
|  | **SECTION E** |  |
| 33. | a. Write a program to input ‘n’ numbers in to a list L1 and replace every number divisible by 7 with three times its value and the remaining with half its value.    b. Write a program to input a string and count the number words in it. | 3+2 |
| 34. | 1. Write a program to input a list L with ‘n’ elements and find the sum of all elements not divisible by 3 or 5. 2. Write a program to input a string and display every character with ‘#’ after each character.   For example: if the string is “Indian School Wadi Kabir”  Output should be : I#n#d#i#a#n# #S#c#h#o#o#l# #W#a#d#i# #K#a#b#i#r# | 3+2 |
| 35. | Write a program to create a dictionary “employee” with name and salary of ‘n’ students as key : value pairs. Find the sum of salary of all employees whose salary >8000. | 5 |