KENDRIYA VIDYALAYA SANGATAN KOLKATA REGION

MARKING SCEME

COMPUTER SCIENCE (Code: 083)

Maximum Marks: 35   **Time: 2 hours**

QNO	Part No	Section -A Each question carries 2 marks	Marks
1	I	Which of the following can not become keys of dictionary(Select all possible/s answer) a) list b) int c) string d) tuple e)dictionary Ans : a) list e)dictionary	1
	II	What output you will get upon execution of following statement list1=[[10,20],[30,40],[50,60]] print(list1[1][:]) Ans : [30, 40]	1

2	i	Expand the following:
		   OSS , FSF
		
		Ans : OSS : Open-source software
		    FSF : Free Software Foundation
			1

	ii	Stealing someone else's intellectual work and representing it as own , is called a) Intellectual steal b) Pluckism c) Plagiarism d) Pickism Ans : c) Plagiarism	1
3		Define Firewall Ans : Firewall : A firewall is a network security system that restricts network traffic in, out (inncoming and outgoing traffic) based on certain pre-defined rules.	2
4		Differentiate between copyright and trademark Ans : A copyright is a legal term to describe the rights of the creator of an original work . e.g : design Trademark are some registered words, slogans shapes, etc used to distinguish the goods or services of one trader from anoter	2

5		**Mention any four benefits of e-waste recycling**
		Ans : (i)Recovery of valuable precious metals
		    (ii)Protect public health and water quality
		    (iii)Creates job/economical benefits
		    (iV) saves landfill space
			2

6	i	Mention any two major gender issues for under representation of girls in the field of computer study Ans : (i) Lack of Role Models	1

		(ii)Preconceived Notations	
	ii	Mention any two broadly used open source licenses Ans : Creative Common Licenses GNU General Public License	1
7		Define following terms : a) Computer viruses b) Trojans Computer Virus: These are malicious programs that cause damage to data on a computer system Trojans : A Trojan is a program that appears harmless but actually performs malicious functions **OR** Define following terms a)eavesdropping b)phishing eavesdropping :Unauthorized monitoring of other people's communications is called Eavesdropping phishing This is a process of stealing user data, including login credentials and credit card numbers etc when a attacker uses an authentic looking mail or trusted entity such as a website	2
		SECTION – B **Each question carries 3 marks**	

8		Create a dictionary containing names and marks as key value pairs of 5 students. Write a program to display marks of students where name begins with a an upper case vowels
		Ans:
		dict_={}
		for count in range(0,5):
		   name=(input("enter values for name "))
		   marks=(input("enter values for marks"))
		   dict_[name]=marks
		for key in dict_:
		  if key[0] in "AEIOU":
		    print(dict_[key],key)
		 OR
		
		Count the frequency of each alphabets present in a string using dictionary
		
		Ans :
		string_="aaeeiioooouu"
			3

		dict_={}
		
		for alpha in string_:
		   if alpha not in dict_:
		     dict_[alpha]=1
		   else:
		     dict_[alpha]=dict_[alpha]+1
		print(dict_)	

9	i	A list "list_" contains 10 integer value. Write statement to display first and last element Ans : list_[0] list[1]	1
	ii	**Display each alternate element present in list_ using slicing** **Ans : list_=[1,2,3,4,5,6]** **print(list_[0:-1:2])**	2
10		Define Identity theft. Give any two examples of on line identity theft Ans : Identity theft is a crime in which an imposter obtains key pieces of personally identifiable information , such as license or other ID numbers, to impersonate someone else. The stolen information can be used for purchasing goods and services in the name of the victim or to provide/post information with false credentials.	2+1
		Section C **Each question carries 4 marks**	

11		For given list list1 and list2 and list3 , predict output for commands (I) to (IV) assuming all indentations are correct
		
		list1= [1,2,3,4]
		list2=['b','c','d']
		list3=[1,2,3,4,5]
		list4=[1,2,3,4]
		
		  (I) list1.append(list2)
		       print(list1)
		Ans : [1, 2, 3, 4, ['b', 'c', 'd']]
		
		(ii) list2.insert(0,'a')
		   print(list2)
		 Ans : ['a', 'b', 'c', 'd']
			4

		(iii) element=list4.pop()
		    print(element)
		Ans: 4
		(IV)list3.extend(['A','E'])
		    print(list3)
		Ans : [1, 2, 3, 4, 5, 'A', 'E']	

12	i	```\nStatement I : from math import pi\nstatement II : from math import *\n``` **How statement I is different from statement II** **Ans : Current namespace will store only pi of math module where as in case of statement II entire content of math module will be available in current namespace .** **Or** Write a statement to display a random number in the range of 50 to 90. Import requisite module before writing statement Ans: import random value= random.randint(50,90) print(value)	2
	ii	**Write statement to calculate square root of a given number after importing required module** **import math** **result= math.sqrt(91)** **or** **Differentiate between random() and randint()** **Random() returns a value in the range of >=0 and <1** **Randint() returns a value V in the range(a,b) where a<=V<=b**	2

13	A	A. Write output along with justification for following statements/code (I) to (II)
		
		(I) tuple_ = (1)
		   tuple2_=(1,2)
		   print(type(tuple_,tuple2_))
		Ans : int, tuple
		
		(ii) tuple3=(1,2,3,4,5)
		   tuple3[0]=10
		Ans : error / TypeError / tuple' object does not support item assignment
		Assignment is not allowed in tuple as it is non mutable type
			2

	B	Differentiate tuple with list along with example Ans : The difference between the tuples and lists is that while the tuples are immutable objects the lists are mutable .Content of a tuple can not be modified whereas a list content's is available for modification.	2