Apeejay Common Examination-2021-22

Subject: Computer Science (083)

Class – XI

Term -II

Maximum Marks: 35   **Time: 2Hours**

General Instructions:

→ The question paper is divided into 3 sections – A, B and C

→ Section A, consists of 7 questions (1-7). Each question carries 2 marks.

→ Section B, consists of 3 questions (8-10). Each question carries 3 marks.

→ Section C, consists of 3 questions (11-13). Each question carries 4 marks.

→ Internal choices have been given for question numbers 7, 8 and 12.

Q. No	Part No.	Section - A Each question carries 2 marks Question	Marks
		Section - A **Each question carries 2 marks**	
		Question	**Marks**
1.	(i)	What is Eavesdropping?	1
	(ii)	What is spyware? For what purpose spyware is used?	1
2.		What are cookies? Why are they used?	2
3.	(i)	What is the incognito mode of the browser? When should we use this mode?	1
	(ii)	What do you mean by digital footprints?	1
4.		What is Trojan Horse? How is different from Computer Virus?	2
5.	(i)	What is the difference between statements (I and II) present in the following code: import random print (random.randrange(100)) #Statement I print (random.randrange(50,100)) print (random.randrange(50,100,5)) #Statement II	1
	(ii)	Write the output of the following code: k=['a',1,'b',2] print(k*2)	1
6.	(i)	What will be the output of the following statement in python?	1

		d=[10, 12, 18, 20, 26, 28, 30, 34, 42, 56, 64, 80] print(d[0:8:3]) print(d[-6:-2:2])	
	(ii)	i i) >>> list1=[1,2,5,4,70,10,90,80,50] >>>a=list1.pop(1) >>>print(list1)	1
7.		How will the following expression of tuples be evaluated? Explain in brief. Also give the result produced. t1 = (5,6,8,7) t2 = (5,6,7,8) print(t1 < t2) #expression **OR**	2
		i) >>> list1=[100,50.75,"Radhika","Shaurya",900,897.60] print(list1[5:2:-1]) ii) >>>list1=[1,2,'a','c',[6,7,8],4,9] list1[4]	
		Section - B **Each question carries 3 marks**	
8.		Consider the following tuple and write the code for the following statements : T1 = (12, 3, 45, 'Hockey', 'Anil', ('a', 'b')) a. Display the first element of 'T1' b. Display the last element of 'T1' c. Display 'T1' in reverse order. d. Display 'Anil' from tuple 'T1' e. Display 'b' from tuple 'T1 f. Display last three elements of ('T') **Or** Write a program to create a dictionary to store rollno as key and marks as value. Accept a rollno from the user. Search for it in the dictionary and remove rollno (key) alongwith marks (value)from the dictionary if key(rollno) is present in dictionary. If the key(rollno) is not found then print 'invalid key'. Also print the dictionary after deletion.	3
9.		import random ar=[10,20,30,40,50,60,70]	(2+1= 3)

		start=random.randint(1,3)
		end=random.randint(2,4)
		for k in range(start,end+1):
		  print(ar[k],end='#')
		
		i. What possible output(s) are expected to be displayed on screen when the program is executed.
		      1. 10#20#30#
		      2. 30#40#50#
		      3. 50#60#70#
		      4. 20#30#40#
		ii. Specify the maximum value assigned to start and end variables.	

10.		Define these terms: (i) Phishing (ii) Spam mail (iii) Computer forensics (iv) Identity theft (v) Cyber Bullying (vi) Hacking	3
		Section - C **Each question carries 4 marks**	
11	(i)	What will be the output of the following code segments: **#Segment A** a={1 : "Monday", 2 : "Tuesday", 3 : "Wednesday"} b=a.copy( ) b[1]="Sunday" print(a) print(b) **#Segment B** x={1 : ["Monday", "Tuesday"], 2 : ["Tuesday", "Wednesday"], 3 : "Wednesday"} y=x.copy( ) y[1].append('Sunday') print(x) print(y)	(1+1)2
	(ii)	Look at the following manipulations of the lists. After the execution of the code what	2

		will be the net content of the list 'k'?
		
		d=[1,6,3,2,8,4,2,1]
		
		k=[ ]
		
		for x in d:
		
		     if x%2==1:
		
		          k.append(x)
		
		     elif x%2==2:
		
		          k.pop()
		
		          k.append(x+2)
		
		     else:
		
		          k.pop(0)
		
		          k.append(x*2)
		
		print(k)	

12		Mr. Soham is studying in class XI. He is learning to break into computer systems for fun. During this course of learning he collected email addresses, date of birth details and the contact numbers of his classmates. One day he designed a webpage which looks very much similar to the front page of his school's website. The webpage offers the students to login using their emails and passwords. Using this web page he was able to collect the username and passwords of emails of some of his classmates. One day he started sending abusive and threatening emails to one of his classmate 'Rohan' from the email account of another student 'Amit' using the login details obtained using that fake page. Using the email details he was also able to login into social media accounts of the 'Rohan'. Using the social account of 'Rohan' now he started to write embarrassing and humiliating comments on the posts of 'Amit' Answer the following questions based on this case:	
	(i)	Has Soham committed any cyber crime? Briefly explain.	1
	(ii)	Which act of Soham is the case of Identity Theft?	1
	(iii)	Has anyone been cyber bullied in this case? If yes then who and how?	1
	(iv)	If this happens to you which happened with 'Amit' then what would you do?	1
		OR	
		Anwar of class XI has been allotted to make a project on Education During Covid-19.	

		He visited several websites in this regard and downloaded pictures of various artwork created by some famous artists. From the WHO website he copied the article on symptoms and spread of Covid-19 written by Dr. A.S.Ahuja. After collecting all the required information he had downloaded the unauthorised cracked copy of a Designing Software from some illegal websites. He installed the software and made a document containing the text and images collected from various websites. While presenting the project he claimed all the written work and pictures as of his work. He didn't mention the credits for the text and pictures for their genuine owners. Based on facts of this case answer the following questions:	
	(i)	Can Anwar use the images and text the way he has used in his project?	1
	(ii)	Is it correct to not mention the credits and use the copyrighted images? Why?	1
	(iii)	Which act of Anwar is an example of piracy?	1
	(iv)	What is the risk of downloading software from illegal websites? Briefly explain.	1
13		a. Write a program which consider any tuple of integers and find out the maximum and minimum element present in tuple. Example: If tuple stores 12,74,20,1,177,190,87 Then the output should be: Maximum number=190 Minimum number = 1 b. Write a program enter (read) a list of n integers consisting positive and negative numbers. Create two new lists, one having all positive numbers and the other having all negative numbers from the given list. Print all three lists.	(2+2)4