COMPUTER SCIENCE – CODE:083

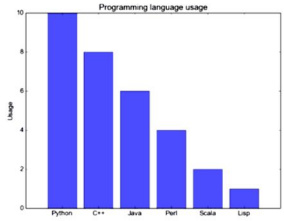
2019-20

MARKING SCHEME

Q 1	**a)**	i) False ii) False (½ mark for each correct answer)	**(1)**
	b)	i) Hexadecimal Literal ii) Bool Literal (½ mark for each correct answer)	**(1)**
	c)	i) math ii) pickle (½ mark for each correct answer)	**(1)**

	d)	def checkval:
		x=int(input ("Enter a number"))
		if x%2= = 0:
		print(x,"is even")
		elif x<0:
		print (x ,"should be positive")
		else:
		print (x,"is odd")
		(Any 4 errors to be corrected. ½ mark for each error spotting and correction)
			(2)

	e)	E EX EXA EXAM EXAMdd EXAMdddd EXAMdddddd EXAMddddddddd (2 marks for correct output) Partial marking can also be given	**(2)**
	f)	a:3 b:7 c:10 a:25 b:5 c:24 a :100 b:5 c: 50 (1 mark for each correct output)	**(3)**
	g)	i, iii, iv are the possible outptus. Minimum value for Togo : 1 Maximum value for Togo: 3 Correct output : 1 mark Minimum and Maximum value : 1 mark	**(2)**
Q. 2	**a)**	Global variables are the one that are defined and declared outside a function and we need to use them inside a function If a variable is defined inside the scope of function then it cannot be accessed out side the function and it has a local scope. (½ mark for global variable explanation and ½ mark for local variable.)	**(1)**
	b)	ii)E={(1,2,3):7,[6,7,8]:9,'well':'done'} iv)B="school"+5 Keys cannot be mutable. String cannot be concatenated with an integer (½ mark for each correct answer and explanation)	**(1)**
	c)	Tuple	**(1)**
	d)	Kavya Finished Jamuna Finished	**(1)**

		Surya Got it (1 mark for correct answer)	
	e)	3 3 3 2 5 3 (1 mark for correct answer) Partial marking can be given.	**(1)**
	f)	Global – school , class , level , res Local – max _class Built in function – len () User defined function- teach () (1/2 mark for each correct answer)	**(2)**
	g)	import matplotlib.pyplot as plt con=[23.4,17.8,25,34,40] zones=['East','West','South','Central'] plt.axis("equal") plt.pie(con,labels=zones,explode=[0,0,0.2,0,0],autopct="%1.2f%%") plt.show() ½ mark for import matplotlib ½ mark for con and zones ½ for plt.pie ½ for show **OR**  	**(2)**

	h)	def count():
		file=open(“Poem.txt”,’r’)
		lines=file.read ()
		count=0
		word=line.split()
		for w in word:
		for i in range(0,len(w)):
		if w[i].islower()
		count=count+1
		print(count)
		
		½ mark for opening the file
		½ mark for reading and splitting line
		½ mark for checking condition
		½ mark for printing the count
		OR
		
		def LOWER():
		file=open(“vowel.txt”,’r’)
		lines=file.read ()
		count=0
		word=line.split()
		for w in word:
		if w[0]==’a’ or w[0]==’e’ or w[0]==’i’ or w[o]==’o’ or w[0]==’u’:
		print(w)
			(2)

		½ mark for opening the file ½ mark for reading and splitting line ½ mark for checking condition ½ mark for printing the word	

	h)	def gcd(a,b):
		  if b==0:
		  return a
		  else:
		  return gcd(b,a%b)
		n1=int(input("Enter first number"))
		n2=int(input("Enter second number"))
		d=gcd(n1,n2)
		print("GCD of",n1, "and",n2, "is",d)
		
		2 marks for defining the function
		1 mark for invoking the function
		
		OR
		def binarysearch(ARR,I,R,X):
		  if R>=I:
		  mid=I+(R-I)//2
		  if ARR[mid]==X:
		  return mid
		  elif ARR[mid]>X:
		  return binarysearch(ARR,I,mid-1,X)
		  else:
		  return binarysearch(ARR,mid+1,r,X)
		  else:
		  return -1
		ARR=[2,3,4,10,40]
		X=int(input("enter element to be searched"))
		result=binarysearch(ARR,0,len(ARR)-1,X)
		if result!=-1:
		  print("Element is present at index",result)
		else:
		  print("Element not in the array")
		
		½ mark for mid
		½ mark for returning mid
		1 mark each for returning function
		1 mark for invoking function
			(3)

	j)	def push(stk,item):
		  stk.append(item)
		  top=len(stk)-1
		
		def display(stk):
		  if isEmpty(stk):
		  print("stack empty")
		  else:
			(4)

		top=len(stk)-1
		print(stk[top],"←-top")
		for a in range(top-1,-1,-1):
		print(stk[a])
		
		2 marks for push function
		2 marks for display function
		
		OR
		
		def qinsert(Qu,item):
		Qu.appent(item)
		if len(Qu)==1:
		front=rear=0
		else:
		rear=len(Qu)-1
		
		def qdelete(Qu):
		if isEmpty(Qu):
		return "underflow"
		else:
		item=Qu.pop(0)
		if len(Qu)==0:
		front=rear=None
		return item
		
		2 marks for insert function
		2 marks for delete function	

		SECTION C	
Q 3	**a)**	Router	**1**
	b)	Protocol	**1**
	c)	Collision	**1**
	d)	Internet of Things	**1**
	e)	SMTP-Simple Mail Transfer Protocol SSL – Secure Sockets Layer FTP – File Transfer Protocol Wi-Fi – Wireless Fidelity ½ mark for each correct answer	**2**
	f)	**2 G – It allows some data along with calls in the form text messages. Data speed is upto 250 Kbps. Frequency 900 MHz – 1800 MHz.** **4G – Speed is 10 to 15 Mbps which can go upto 50 Mbps. Frequency ranges 1800 Hz to 2300 Hz.**	**2**
	g)	**i)Phishing**	**1**
		ii)Cyberstalking	**1**
		iii)Identity Theft	**1**
	h)	**The cable network layout is:** **i) Star topology OR Bus topology** **ii) Training Building as it contains maximum number of computers.** **iii) a) A Repeater should be placed when the distance between any two**	**4**

		connecting computers exceeds 70 m. b) Every building will need one Hub/Switch, to send signals to all of the workstations connected to it. iv) Optical Fiber	
		SECTION C	
	a)	WHERE	1
	b)	UPDATE	1
	c)	DROP TABLE	1
	d)	GROUP BY, HAVING	1
	e)	Where conditions applicable on individual rows whereas Group by applicable on groups formed by Group by clause	1
	f)	GET and POST are the only HTTP methods to use when dealing with forms. Django's login form is returned using the POST method, in which the browser bundles up the form data, encodes it for transmission, sends it to the server, and then receives back its response. Both of these are dictionary like objects that give you access to GET and POST dat. POST data is generally submitted from an HTML form, while GET data can come from a form or a query string in the page URL	2
	g)	i) 4 ii)1100 iii) C_N AGE SPORTS RAVINA 34 KARATE KETAKI 36 SWIMMING ANKITA 39 SQUASH ZAREEN 37 KARATE	3
	h)	i) SELECT * FROM COACH ORDER BY C_N; ii) SELECT C_N,AGE,SPORTS FROM COACH WHERE PAY>1000 iii)UPDATE COACH SET PAY=PAY+200 WHERE GENDER='M' iv) SELECT SUM(PAY) FROM COACH	4
		SECTION D	
	a)	Plagiarism	
	b)	Allows for recovery of valuable precious metals Protects public health and water quality Creates Jobs Toxic Waster Saves landfill space	1
	c)	Computer forensics refers to methods used for interpretation of computer media for digital evidence. It provides our legal system with a way to recover data from electronic or digital devices.	2
	d)	Shareware is a software, which is made available with the right to redistribute copies, but is available for limited time, often after a certain period of time , a license fee should be paid. OSS refers to software whose source code is available to customers and it can be modified and redistributed without any limitation. It is free of cost or comes with a payment of	2

		nominal charges that its developers may charge in the name of development, support of software	
	e)	**Under representation – Preconceived notions, Lack of interest, Lack of motivation, Lack of Role Models and Lack of encouragement in class**	**2**
	f)	**Cyber Scam. It is a fraudulent business practice that extracts money from an unsuspecting, ignorant person. Scams committed over the Internet are called online scams.**	**2**