Marking Scheme 2024-2025
Class :XI
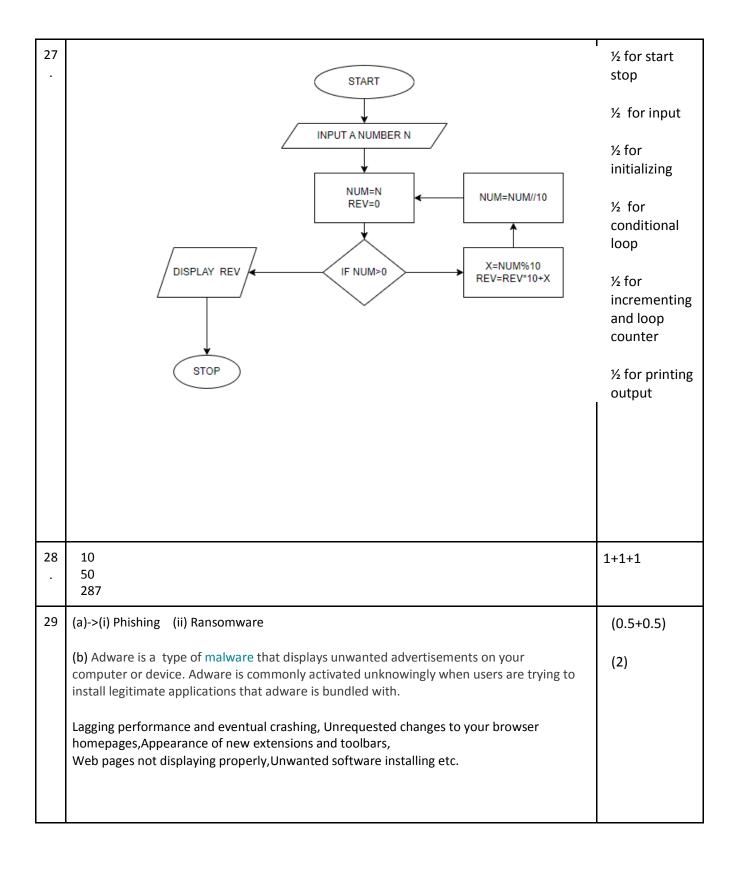## Subject: Computer Science(083)

		Section A	Marks
1.		a. Sum#	1
2.		c. Ubuntu	1
3.		d. statement 4	1
4.		c. UTF-128	1
5.		b. Exclusive OR Gate	1
6.		d. zottabyte	1
7.		c. ('Learn today ', 'Lead', ' tomorrow')	1
8.		c. Phishing	1
9.		d. statistics	1
10.		b. 34.0	1
11.		d. 5	1
12.		b. Spyware	1
13.		b. Change her social media privacy settings to restrict who can see her posts	1
14.		a. Found	1
15.		a. A license that allows users to view and modify the source code of the software	1
16.		b. Including a clear subject line and polite greeting	1
17.		a. Both A and R are True and R is the correct explanation for A.	1
18.		c. A is True but R is False.	1

	Section B	
19.	a. Embedded Operating System b. Multi-user Operating System **OR** Rahul's laptop is likely using the **Unicode** encoding scheme, specifically UTF-8, UTF-16, or UTF-32. Unicode is designed to support a wide range of characters from many different languages, including Chinese, Arabic, and Russian. Sakshi's Laptop is using older and limited encoding scheme. Unicode is better than many encoding schemes because it is supported by many softwares and internet protocols. (any valid reason should be marked appropriately)	1+1 1 mark for identifying correct encoding scheme 1 mark for correct reason
20	d = {'a':1,'b':2,'c':3} n = {} values = d.values() <u>keys = list(d.keys())</u> k = 0 for i <u>in values:</u> <u>n[i] = keys[k]</u> <u>k+=1</u> print (n)	½*4=2
21.	Syntax errors occur when code violates syntax rule of the programming language preventing it from running. Detection occurs during compilation or interpretation. Logical errors arise when code is syntactically correct but produces incorrect results due to flaws in algorithm or logic. **OR** {'Ertiga': 8, 'XUV': 6, 'Innova': 8} {'Ertiga': 8, 'XUV': 6, 'Innova': 8, 'Swift': 5}	1+1

22.	a. Yes, by sharing her geolocated pictures, Shikha is leaving a digital footprint. DShe acn manage her digital footprints by using privacy settings on social media, avoiding sharing personal information online, using a VPN, deleting search history and cookies, and setting up two-factor authentication.
	b. **Netiquettes** are the code of good behavior on the internet. They are guidelines for courteous communication and interaction online.
	Netiquettes Shikha Should Follow on Social Media (Any one):
	    a. Respect Privacy
	    b. Think before posting
	    c. Respect others Opinions
	    d. Be mindful of language and tone (any relevant point must be marked)
	OR
	In India, the primary legal body that deals with appeals regarding cyber-related issues is the **Cyber Appellate Tribunal (CAT)**. The CAT operates under the jurisdiction of the Information Technology Act, 2000, which provides a legal framework for addressing cyber crimes, frauds, cyber attacks, and cyber bullying
		½+½
		
		1

23.	**OR** a. $(2220)_{10}$ b. $(272.6)_8$	1 1 2

24.	Possible Outcomes:
	  a. Mango@Cherry@
	  b. Orange@Mango@Cherry@
	Maximum value of t:4
	Minimum Value of t:2
		2

25.	a. 2×2^{30} KB b. Truth Table for $((A.B)'+(A.B)')'=(A.B)$	1+1=2

Table for question 25:

A	B	A.B	(A.B)'	(A.B)'+(A.B)'	((A.B)'+(A.B)')'
0	0	**0**	1	1	**0**
0	1	**0**	1	1	**0**
1	0	**0**	1	1	**0**
1	1	**1**	0	0	**1**

	Section C	
| 26 | ```
s= eval(input('Enter a list of integers'))
sum35=0
ctr=0
for i in s:
  if i%3==0 or i%5==0:
    sum35+=i
    ctr +=1
print ('Average is : ', sum35/ctr)

      Or

ipaddress=input("Enter an IP address")
parts=ipaddress.split(".")
flag=1
if len(parts)==4:
  pass
else:
  flag=0

for part in parts:
  if part.isnumeric()==False:
    flag=0
    break
  p=int(part)
  if p>=0 and p<=255:
    pass
  else:
    flag=0
    break
if flag==1:
  print("Valid IP Address")
else:
  print("Invalid IP Address")
``` | 3= ½ for creating list ½ +½ for initializing sum,counter 1 mark for loop and if statement ½ for printing result<br><br>½ for input, ½ for split,<br><br>½ for checking exact 4 parts in ip address<br><br>1 mark for checking the integer portion values of ip address,<br><br>½ for printing result |

27.		½ for start stop ½ for input ½ for initializing ½ for conditional loop ½ for incrementing and loop counter ½ for printing output
28.	10 50 287	1+1+1
29	(a)->(i) Phishing (ii) Ransomware (b) Adware is a type of malware that displays unwanted advertisements on your computer or device. Adware is commonly activated unknowingly when users are trying to install legitimate applications that adware is bundled with. Lagging performance and eventual crashing, Unrequested changes to your browser homepages,Appearance of new extensions and toolbars, Web pages not displaying properly,Unwanted software installing etc.	(0.5+0.5) (2)

| 30 | ```
s=int(input("Enter your total annual income"))
status=input("Are you from agricultural sector y/n")
tax=0
if s<=300000:
    tax=0
elif s<=600000:
    tax=0.05 *(s-300000)
elif s<=1000000:
    tax=300000*0.5 + 0.1*(s-300000)
elif s<=2000000:
    tax= 300000*0.5+ 0.1*400000+ 0.2*(s-1000000)
else:
    tax=300000*0.5+ 0.1*400000+ 0.2*1000000+0.3*(s-2000000)
if status=="y":
    tax= 0.95*tax
print("total tax=",tax)
``` | 1 mark for inputting values,<br><br>1 mark for if .. else<br><br>½ mark for deducting 5% tax,<br><br>½ marks for printing result |

	Section D	

31	(a)(i) print(s[:6]) or print(s[:6:])
	(ii) print(s[:5:2])
	(iii)print(s[::-1])
	(iv) print(s[5::-1]).lower()
	
	(b) x='Today is my computer exam'
	      for c in x[::2]:
	            print(c)
		½ x4=2
		
		½ for initializing string, 1 ½ for proper loop

32	(a)
	(i) import statistics
	       l=[1,2,3,1,2,4,5,1,5]
	       print(statistics.mode(l))
	
	(ii) import string
	      st='Hello everyone'
	      print(st.title())
	
	(b)
	(i) t=(2*a) * math.sqrt(l)/g
	
	(ii) v2=v1 + (3 * math.sin(x) * math.cos(x)**2)
		1+1
		
		1+1

	Section E	
33	a. &&OG&&M&*&*	2

	b. s1=input('Enter a string ')
	cnt=0
	for i in s1:
	  if i.lower()=='a':
	    cnt +=1
	print (cnt)
		2

	c.. ok	1

34	a. if 'India' not in country: country['India']='New Delhi' b. country.update(c2) c. del country['Bhutan'] d. print (country.keys())	1+1 1 1 1
	OR	
	a. 20 **b. [20, 50, 50, 30, 15]** **c.** None **d.** ('notebook', 23) **e.** {'sample paper': [80], 'stamp': [80]}	1 1 1 1 1

35	(a) c. Plagiarism.	1
	(b) Hacking	1
	(c) Identity Theft	1
	(d) - under representation of girls	2
	- Nowadays girls can find very few role models in the field of 'Computer Science' whom they can imitate.	
	OR	
	(a)1. E- waste can lead to release of toxic and hazardous gasses that has a very ill effect on our lungs/ nervous system etc	2
	-E-waste is non biodegradable and accumulates in the environment.	
	2. i) Recycling ii) refurbish and reuse	1
	(b)	
	1. No, it is not suggested sharing the PIN number through SMS on the given contact number because it might be a phishing attempt to steal sensitive information.	1
	2. Do not respond to the SMS , verify your account and keep track of your account.	1