MARKING SCHEME

SECTION A

Ques No		Marks
1.	(c)Router	1
2.	(d)Trademark	1
3.	(c)ol	1
4.	(b)460	1
5.	(b) S[2]	1
6.	(b) FOSS	1
7.	(a) Star	1
8	(C)plt.xlabel()	1
9	(a)Prog	1
10	(c) 3	1
11	(a)update	1
12	(b) Mutable, immutable	1
13	(d)Aggregate Function	1
14	((c)Library	1
15	(c) total	1
16	(c)histogram	1
17	(b) Both A and R are true and R is not the correct explanation for A	1
18	(c) A is True but R is False	1

SECTION B

19	Hacking is the process of gaining unauthorized access into a computing device, or group of computer systems. This is done through cracking of passwords and codes which gives access to the systems.	2
20	(a)A router is a networking device that helps in forwarding packets from source machine to the destination machine over a network by using the shortest path.	2

	(b)A gateway operates on all the seven layers of OSI model.A network gateway is a computer which has internet working capability of joining together two networks that use different base protocols.	
21	(i)2 (ii)3	2
22	import pandas as pd Subject=pd.Series([75,78,82,88],index=[‘ English’,’ Hindi’, ‘Maths’, ‘Science’]) *[1/2 mark for import statement,1/2 mark for usage of Series(),1/ mark for stating index as a list,1/2 mark for creating object subject]*	2
23	(a)SELECT SUBSTR(“Preoccupied”, 4); (b)SELECT MID(“Preoccupied”, 6, 3);	2
24	(i)No copyright violation (ii)Share the expertise with others on the internet (iii)Avoid cyberbullying (iv)Respect other’s privacy and diversity	2
25	import pandas as pd df ={"Technology":["Programming","Robotics","3DPrinting"], "Time(in months)":[4,4,3]} df= pd.DataFrame(df) print(df) *(1/2 mark for each correction)*	2

SECTION C

26	import pandas as pd data=[[101,'Gurman',98],[102,'Rajveer',95],[103,'Samar' ,96], [104,'Yuvraj',88]] df=pd.DataFrame(data,columns=['Rno','Name', 'Marks']) *[1 mark for each correct python statement]*	3
27	import matplotlib.pyplot as plt pr=[74.25, 76.06, 69.5, 72.55, 81.5] plt.bar(range(len(pr)),pr,width=0.4) plt.title(“Prices of Abc Company”) plt.ylabel(“Prices”) plt.show()	3

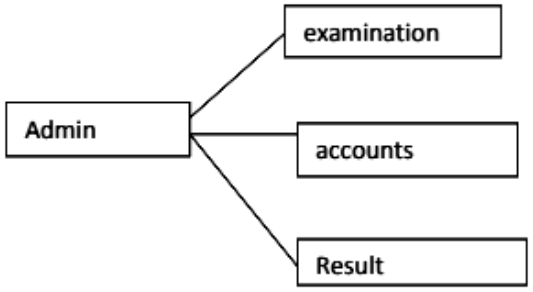
	(1 mark for the import statement,1 mark for appropriate usage of bar() and title(),1 mark for show())	
28	(i)11 (ii)cbse (iii)exams	3
29	i.Nadar has become a victim of cyber bullying and cyber stalking. ii. She must immediately bring it into the notice of her parents and school authorities. And she must report this cyber crime to local police with the help of her parents. iii. Yes. The Information Technology Act, 2000 (also known as ITA-2000, or the IT Act) is the primary law in India dealing with cybercrime and electronic commerce.	3
30	(i)6 (ii)34000 (iii)Foun Nigh **OR** (i)MATE (ii)ION (iii)8	3

SECTION D

31	i.SELECT LOWER(CNAME) FROM CLOTH;
	ii. SELECT MIN(PRICE) FROM CLOTH;
	[1 mark for each correct query]
	iii. SELECT COUNT(*) FROM CLOTH GROUP BY SIZE HAVING SIZE='M';
	OR
	SELECT YEAR(DOP),COUNT(*) FROM CLOTH GROUPBY YEAR(DOP);
	[2 mark for correct query]	

32	a) (i) mdf.iloc[1:3] (ii) mdf[‘Maths’]=mdf[‘Maths’]+4 (b) mdf.loc[:,[‘roll no’,’name’]][mdf[‘Maths’]<10] **OR** print(mdf.English + mdf.Hindi + mdf.Maths) *[MARK 1+1+2]*	

SECTION E

33	i)Server should be installed in Admin department as it has maximum number of computers. ii)  Star topology iii)Hub/Switch iv) Dynamic v)Video conferencing	5

34	i)SELECT POWER(3, 4);
	ii)SELECT NOW();
	iii)SELECT ROUND(-34.4567,2);
	iv)SELECT TRIM(USERID) FROM USER;
	v)SELECT LENGTH("FIFA World Cup");
		5

35	import matplotlib.pyplot as plt Category=['Gold','Silver','Bronze'] Medal=[20,15,18] plt.bar(Category,Medal) plt.ylabel('Medal') plt.xlabel('Medal Type') plt.title('Indian Medal tally in Olympics') plt.show() *[1/2 mark for each correct statement]* Python statement to save the chart: plt.savefig("aa.jpg") *[1 mark for the correct statement]* **OR** import matplotlib.pyplot as plt Week=[1,2,3,4] Avg_week_temp=[40,42,38,44] plt.plot(Week,Avg_week_temp) plt.show() *[1 mark for each correct statement]*	5