

General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only.

	PART A	
1.	a) Internet 1 mark for correct answer	1
2.	c) Plagiarism 1 mark for correct answer	1
3.	d) All of these 1 mark for correct answer	1
4.	c) Null value 1 mark for correct answer	1
5.	b) 2.8 1 mark for correct answer	1
6.	d) Property 1 mark for correct answer	7
7.	d) Arithmetic Functions 1 mark for correct answer	
8.	a) 460 1 mark for correct answer	1
9.	c) LCASE(str/column_name) 1 mark for correct answer	1
10.	b) S[2] 1 mark for correct answer	1
11.	c) Homogeneous tabular data structure 1 mark for correct answer	1
12.	d) type 1 mark for correct answer	1
13.	c) Chat group 1 mark for correct answer	1

14.	d)DATE() 1 mark for correct answer	1
15.	c)India's Information Technology(IT),Act ,2000 1 mark for correct answer	1
16.	a) Copyright 1 mark for correct answer	1
	Q17and18areASSERTIONANDREASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True	
17.	i) Both A and R are true and R is the correct explanation for A	1
18.	i) Both A and R are true and R is the correct explanation for A .	1
	SECTION B	
19	Website: A group of related webpages that follow the same theme and are connected together with hyperlinks is called a Website. Webpage: web page is an electronic document designed using HTML.it displays information in textual or graphical form. 1 mark for correct explanation of each term OR Network: A network is aninterconnected collection of autonomous computers that can share and exchange information. 1 mark for correct explanation Need of Networking: i. Resource sharing ii. Reliability iii. Cost effective iv. Fast data sharing ½ mark for each (any two)	2
20	SELECT Deptcode,MAX(Salary) FROM Employee GROUP BY Deptcode; 1 Mark for error identification 1 Mark for writing correct query	2
21.	None of the aggregate functions takes NULL into consideration. NULL is simply ignored by all the aggregate functions excepts COUNT(*). 2 marks for correct answer	2
22.	import pandas as pd d={'English':75,'Hindi':78,'Math':82,'Science':88} Subject=pd.Series(d) print(Subject) ½ marks for import statement ½ marks for using dictionary ½ marks for uses of Series() ½ marks forcreating object Subject and print()	2

23.	<p>1.Recycling/recovery of valuable material. 2.Dismantling 3.Refurbishment and reuse 4.Disposal of dangerous materials and waste</p> <p>½ mark for each correct answer OR On the internet, a digital footprint is the word used to describe the train, traces or footprints that people leave online. This is information transmitted online, such as forum registration-mails and attachments, uploading videos or digital images. 1mark for each correct answer <u>Guidelines of Digital Footprint</u> 1.know what your digital footprints is 2.keep your digital foot print clean ½ mark for each correct point</p>	2
24.	<p>2 8 4 7 1 mark for each correct answer</p>	2
25.	<p>i) 3 columns ii)import pandas as pd 1 mark for each correct answer</p>	2
SECTION C		
26.	<p>import pandas as pd data=[[201,'Gurmeet',95],[202,'Praveen',89],[203,'Suman',97],[204.'Yogesh',91]] df=pd.DataFrame(data,columns=['Rno','Name', 'Marks']) 1 mark for each correct python statement</p>	3
27.	<p>i. Fees['Section']=['A','B','C','D'] ii. Fees.loc['4']=['IX',1800] iii. Fees=Fees.drop('Section',axis=1) 1 mark for each correct statement</p>	3
28.	<p>Write SQL commands for the statements (i) to (iii) which are based on the given table MASTER.</p> <p>i)132000 ii)GEN COUNT(*) F 3 M 4 iii) 2000 2000</p>	3
29	<p>i. Cyber stalking ii. He should bring to the notice of his parents and school authorities. iii.Computer ethics</p>	3
OR		
<p>Ans. Plagiarism is the act of using or stealing someone else's intellectual work, ideas etc. and passing it as your own work. In other words, plagiarism is a failure in giving credit to its source. Plagiarism is a fraud and violation of Intellectual Property Rights. Since IPR holds a legal entity status, violating its owners right is a legally punishable offence.</p>		3

	<p>Any two ways to avoid plagiarism:</p> <ul style="list-style-type: none"> • Be original • Cite/acknowledge the source <p>1 mark for correct definition 1 mark for correct justification ½ mark each for any two ways to avoid plagiarism</p>	
30	<p>ANS:</p> <p>(i) SELECT Sname, ROUND(Bonus,0)FROM Salesman; (ii) SELECT MONTHNAME(DOJ) FROM Salesman; (iii) SELECT MIN(SALARY) FROM Salesman; 1 mark for each correct query</p>	3
	OR	
	<p>The GROUP BY clause can be used to combine all those records that have identical value in a particular field or a group of fields. Whereas, ORDER BY clause is used to display the records either in ascending or descending order based on a particular field. For ascending order ASC is used and for descending order, DESC is used. The default order is ascending order. 1 mark for correct significance 2 marks for correct example</p>	
	SECTION E	
33.	<p>i. select mid('INDIA SHINING',7,7); ii. select INSTR('WELCOME WORLD','COME'); iii. select round(78.779,2); iv. select mod(149,6); v. select trim(userid) from users;</p> <p>1 mark for each correct query</p> <p style="text-align: center;">OR</p> <p>1.LENGTH():This function returns the length of the string in bytes. It includes the count of blank spaces in the string. Syntax LENGTH(string/column_name) EXAMPLE : SELECT LENGTH('easycalculation');</p> <p>Output: 15</p> <p>2. TRIM(): It removes the leading and trailing spaces from the given string. Example: SELECT TRIM(' Welcome world '); Output: Welcome world</p> <p>3. This function returns the current date and time in the format 'YYYY-MM-DD HH:MM:SS' or YYYYMMDDHHMMSS format. Syntax NOW() e.g. mysql> SELECT NOW() Output: 'YYYY-MM-DD HH:MM:SS' or YYYYMMDDHHMMSS format of current date</p> <p>4. DAYNAME(): It returns the weekday name for a given date Example: SELECT DAYNAME('2022-07-22');</p>	5

	<p>Output: Friday</p> <p>5. POWER(): It returns the value of a number raised to the power of another number.</p> <p>Example: SELECT POW(6,2);</p> <p>Output: 36</p> <p>½ mark for each correct explanation ½ mark for each correct example</p>	
34.	<p>i) TTC should install its server in finance block as it is having maximum number of computers.</p> <p>ii)</p> <div style="text-align: center;"> <pre> graph TD HR[Human Resources Block] --- FB[Finance Block] CB[Conference Block] --- FB </pre> </div> <p>The above layout is based on minimum cable length required which is 120 meter in the above case.</p> <p>iii) Switch</p> <p>iv) WAN</p> <p>v) Satellite Link</p>	5
35	<pre> import matplotlib.pyplot as plt Games=["Subway Surfer","TempleRun","CandyCrush","BottleShot","RunnerBest"] Rating=[4.2,4.8,5.0,3.8,4.1] plt. bar(Games,Rating) plt.xlabel("Games") plt.ylabel("Rating") plt. show() </pre> <p>½ mark for each correct statement</p> <p>Python statement to save the chart:</p> <pre>plt.savefig("aa.jpg")</pre> <p>1 mark for the correct statement</p>	
OR		
	<pre> import matplotlib.pyplot as plt Year=[2015,2016,2017,2018] Pass_Percentage=[82,83,85,90] plt. plot(Year,Pass_Percentage) plt.xlabel("Year") plt.ylabel("Pass_Percentage") plt. show() </pre> <p>1 mark for each correct statement</p>	
SECTION D		
31	<p>i. SELECT UPPER(PNAME) FROM STOCK;</p> <p>ii. SELECT* FEOM STOCK ORDER BY PRICE DESC;</p> <p>1 mark for each correct query</p>	1+1+2

	<p>iii. SELECT CATEGORY,MAX(PRICE) FROM STOCK GROUP BY CATEGORY;</p> <p>OR</p> <p>SELECT CATEGORY,SUM(QTY) FROM STOCK GROUP BY CATEGORY;</p> <p>2 marks for correct query</p>	
<p>32. A)</p>	<p>i) 2 2012 Jan 35</p> <p> 3 2010 Dec 55</p> <p> 4 2012 Dec 65</p> <p>ii) 55</p> <p> 65</p> <p>1 mark for each correct output</p> <p>B)Python statement:</p> <p>print(df.loc[1: 3, 'year'])</p> <p style="text-align: center;">OR</p> <p>df.rename(columns={'Month':'mon_name'})</p> <p>2 marks for correct Python statement</p>	<p>1+1+2</p>