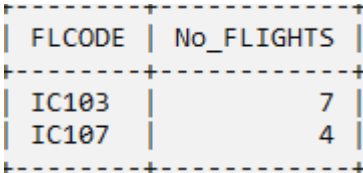


KENDRIYA VIDYALAYA SANGATHAN, JAIPUR REGION
PREBOARD - 1 (2020-21)
INFORMATICS PRACTICES (065)
CLASS: XII
MARKING SCHEME

1	i) True ii) False ½ mark for each correct answer	1
2	a. plt.show() 1 mark for correct answer	1
3	b. 19.62 1 mark for correct answer	1
4	c. 5 1 mark for correct answer	1
5	a. c 3 d 4 e 5 dtype: int64 1 mark for correct answer	1
6	c. xlabel(),ylabel() 1 mark for correct answer	1
7	c. Gateway 1 mark for correct answer	1
8	b. Row 1 mark for correct answer	1
9	b. Star 1 mark for correct answer	1
10	b. Web Server 1 mark for correct answer	1
11	Aggregate Function 1 mark for correct answer	1
12	b. Cyberbullying 1 mark for correct answer	1
13	b. loc() 1 mark for correct answer	1
14	Intellectual Property	1

	1 mark for correct answer	
15	d. Apache Tomcat 1 mark for correct answer	1
16	c. Cyberstalking 1 mark for correct answer	1
17	1. Donating Your Outdated Technology 2. Give Your Electronic Waste to a Certified E-Waste Recycler 1/2 mark for each correct way	1
18	Alter 1 mark for correct answer	1
19	-----+ instr('Toolbarbar','bar') +-----+ 5 1 mark for correct answer	1
20	Repeater 1 mark for correct answer	1
21	Phishing 1 mark for correct answer	1
Section -II		
22	(i) print(df.max()) (ii) a. df1=df[df['EmpNo']==4] print(df1) (iii) a. both (i) and (ii) (iv) a. d. print(df. Columns) (v) b. df ['Grade']=['A','B','A','A','B'] 1 mark each for correct answer	4
23(i)	a. select FLCODE, START, DESTINATION, NO_FLIGHTS from FLIGHT order by NO_FLIGHTS desc; 1 mark for correct Query	4
(ii)	b.  1 mark for correct Output	
(iii)	c. select distinct(DESTINATION) from FLIGHT;	

	1 mark for correct Query													
(iv)	d. select count(FLCODE), DESTINATION, NO_FLIGHTS from FLIGHT group by DESTINATION; 1 mark for correct Query													
(v)	a. select max(NO_STOPS) from FLIGHT; 1 mark for correct Query													
Part - B														
Section - I														
24	import pandas as pd1 data1 = [['Freya',10], ['Mohak',12], ['Dwivedi',13]] Student = pd1.DataFrame(data1, columns= ['Name', 'Age']) print (Student) ½ mark for import statement ½ mark for usage of DataFrame () ½ mark for stating index as a list ½ mark for creating object Student	2												
25	<p>WHERE Clause is used to filter the records from the table or used while joining more than one table. Only those records will be extracted who are satisfying the specified condition in WHERE clause. It can be used with SELECT, UPDATE, DELETE statements. Ex- SELECT S_Name, Age FROM Student WHERE Age >=18;</p> <p>HAVING Clause is used to filter the records from the groups based on the given condition in the HAVING Clause. Those groups who will satisfy the given condition will appear in the final result. HAVING Clause can only be used with SELECT statement. Ex- SELECT Age, COUNT(Roll_No) AS No_of_Students FROM Student GROUP BY Age HAVING COUNT(Roll_No) > 1;</p> <p style="text-align: center;">OR</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">SR. NO</th> <th style="text-align: center;">ALTER COMMAND</th> <th style="text-align: center;">UPDATE COMMAND</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>ALTER command is Data Definition Language (DDL).</td> <td>UPDATE Command is a Data Manipulation Language (DML).</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Alter command will perform the action on structure level and not on the data level.</td> <td>Update command will perform on the data level.</td> </tr> <tr> <td style="text-align: center;">3</td> <td>ALTER Command is used to add, delete, modify the attributes of the relations (tables) in the database.</td> <td>UPDATE Command is used to update existing records in a database.</td> </tr> </tbody> </table>	SR. NO	ALTER COMMAND	UPDATE COMMAND	1	ALTER command is Data Definition Language (DDL).	UPDATE Command is a Data Manipulation Language (DML).	2	Alter command will perform the action on structure level and not on the data level.	Update command will perform on the data level.	3	ALTER Command is used to add, delete, modify the attributes of the relations (tables) in the database.	UPDATE Command is used to update existing records in a database.	2
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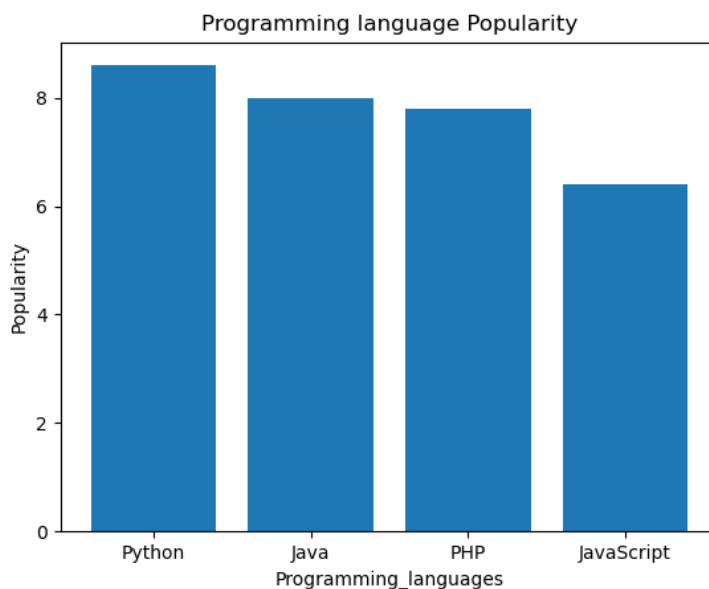
	<p>4 Example : Table structure, Table Name, SP, functions etc.</p>	<p>Example : Change data in the table in rows or in column etc.</p>	
½ mark each for correct difference			
26	<p>i.</p> <pre>SUBSTR('Aakila', -3)</pre> <pre>ila</pre> <p>ii.</p> <pre>LEFT('Toolbar', 4)</pre> <pre>Tool</pre>		2
1 mark each for correct output			
27	<p>i.</p> <pre>import pandas as pd</pre> <pre>s = pd.Series ()</pre> <pre>print(s)</pre> <p>ii.</p> <p>c 3</p> <p>d 4</p>		2
1 mark each for correct answer			
28	<p>This is because the column DESTINATION contains two NULL values and the aggregate functions do not take into account NULL values. Thus Command1 returns the total number of records in the table whereas Command2 returns the total number of non-NULL values in the column DESTINATION.</p>		2
2 mark for correct Justification			
29	<p>i.</p> <pre>Modulus Raised</pre> <pre>3 9</pre> <p>ii.</p> <p>Today's date + 10 days</p> <p style="text-align: center;">OR</p> <p>i.</p>		2

	<pre>length('CORONA COVID-19')</pre> <pre>15</pre> <p>ii.</p> <pre>lcase('COMputer Science')</pre> <pre>computer science</pre> <p>1 mark each for correct answer</p>	
30	<p>i. <code>c = [7,8,9]</code> <code>df['C'] = c</code></p> <p>ii. <code>print(df.rename(columns={'B': 'D'}))</code></p> <p>1 mark each for correct query</p>	2
31	<p>a. Advanced Research Projects Agency NETwork b. Transmission Control Protocol c. Network interface card d. Registered Jack – 45</p> <p>1 mark each for correct abbreviation</p>	2
32	<p>Lung cancer, DNA damage, Asthmatic bronchitis, Chronic damage to the brain, Damage to heart, liver and spleen (Write any four)</p> <p>½ marks for each health hazard</p>	2
33	<p>The act of presenting the words, ideas, images, sounds, or the creative expression of others as it is your creation or your own is known as Plagiarism. Any one example of plagiarism.</p> <p>1 mark each for correct definition and Example.</p>	2
Section -II		
34	<p>i. <code>str *2</code>- Informatics practicesInformatics practices</p> <p>ii. <code>str +'yes'</code>- Informatics practicesyes</p>	3
35	<p>A Denial-of-Service (DoS) attack is an attack meant to shut down a machine or network, making it inaccessible to its intended users. DoS attacks accomplish this by flooding the target with traffic, or sending it information that triggers a crash. Popular flood attacks include:</p> <ul style="list-style-type: none"> 🚩 Buffer overflow attacks 🚩 ICMP flood 🚩 SYN flood <p style="text-align: center;">OR</p> <p>A digital footprint is data that is left behind when users have been online. There are two types of digital footprints which are active and passive.</p>	3

- ✚ An active digital footprint is where the user has deliberately shared information about themselves either by using social media sites or by using websites.
- ✚ A passive digital footprint is made when information is collected from the user without the person knowing this is happening.

36

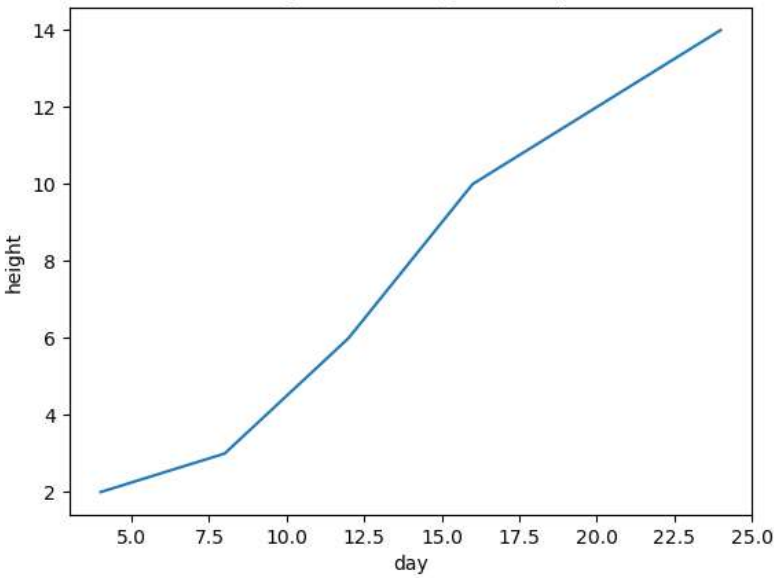

```
import matplotlib.pyplot as plt
import numpy as np
programming_languages=['Python', 'Java', 'PHP', 'JavaScript']
popularity=[8.6, 8, 7.8, 6.4]
plt.bar(programming_languages,popularity)
plt.xlabel('Programming_languages', fontsize=10)
plt.ylabel('Popularity', fontsize=10)
plt.title('Programming language Popularity')
plt.show()
```



OR

```
import matplotlib.pyplot as plt
import numpy as np
day=[4,8,12,16,20,24]
height=[2,3,6,10,12,14]
plt.plot(day,height)
plt.xlabel('day', fontsize=10)
plt.ylabel('height', fontsize=10)
plt.title('Line chart showing how the height of the plant increased')
plt.show()
```

3

	<p style="text-align: center;">Line chart showing how the height of the plant increased</p> 	
37	<p>I. select min(price) from GARMENT; Ii. select SIZE, count(*) from GARMENT group by size Having count(*)>1; Iii. select COLOUR, sum(PRICE) from GARMENT group By COLOUR; 1 mark each for correct query</p>	3
Section -III		
38	<p><u>Student Dataframe:</u> import pandas as pd1 d1 = {'Roll_No' : pd1.Series([1, 2, 3,4], index=['a', 'b', 'c','d']), 'Name' : pd1.Series(['Prem','Prakash','Meena','Raj'], index=['a', 'b', 'c', 'd']), 'Marks' : pd1.Series([10, 15, 30, 24], index=['a', 'b', 'c', 'd'])} Student= pd1.DataFrame(d1) print (Student) 1) Student["Total"] = sum(Student['Marks']) 2) print("Maximum Marks : " ,max(Student['Marks'])) 3) print(Student['Name']) 2 marks for creation of dataframe and 1 mark each for correct answer</p>	5
39	<p>Write correct query as per given in the question. 1 mark for each correct answer</p> <p style="text-align: center;">OR</p> <p>Write correct query as per given in the question. 1 mark for each correct answer</p>	5
40	<p>(i)</p> 	5

(ii) HR Block - Because it has maximum number of computers.

(iii) Best wired medium: Optical Fiber OR CAT5 OR CAT6 OR CAT7 OR CAT8 OR Ethernet Cable

(iv) Firewall - Placed with the server at the HR Block

(v) (b) WAN and (d) LAN OR (b) WAN OR (d) LAN