BUDHA DAL PUBLIC SCHOOL, PATIALA
TERM-I SEPTEMBER 2023 SET-A

DATE	CLASS	SUBJECT	Subject Code
	XII	INFORMATICS PRACTICES	065

Name of Invigilator: _____   Signature of Invigilator:-_____

Time: 3 Hours   **Max. Marks: 70**

General Instructions:

1. **This question paper contains two parts A and B. Each part is compulsory.**

2. **Part-A has 2 sections:**

   a. **Section – I is short answer questions, to be answered in one word or one line.**
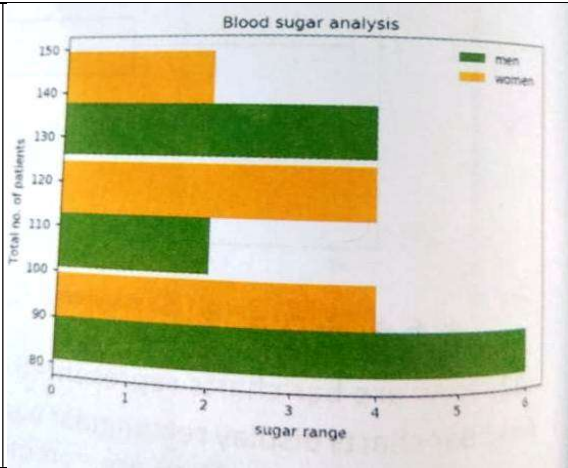   b. **Section – II has two case studies questions. Each case study has 4 case-based sub- parts.**
   Part - B is Descriptive Paper

3. **Part- B has three sections**
   a. Section-I is short answer questions of 2 marks each.
   b. Section-II is long answer questions of 3 marks each.
   c. Section-III is very long answer questions of 5 marks each.

Part - A	
Section - I **Attempt any 15 questions from questions 1 to 21.**	
1. _____ is the most popular open-source Python library used for doing data analysis.	1
2. The two basic and universally popular data structure of Pandas are _____ and _____.	1
3. To create a series object ,_____ method is used.	1
4. Dataframe has _____indices .	1
5. Which of the following commands is used to install Pandas? (i) pip install python-Python (ii)pip install pandas (iii)python install python (iv) python install pandas	1
6. In a dataframe, axis=0 is for (i) Columns (ii) Rows (iii) Rows and columns (iv) None of these	1
7. Which attribute of dataframe is used to perform the transpose operation on a dataframe? (i) T (ii) Ndim (iii) Empty (iv) Shape	1
8. _____ refers to the graphical or visual representation of information and data using visual elements like charts, graphs and maps etc.	1
9. The _____chart is a graph of plotted points on two axes that shows the relationship between two sets of data.	1
10. The axes of a plot can be labeled using _____and _____functions.	1
11. Pyplot module's _____lets you create histograms.	1
12. Which Python package is used for 2D graphics? (i) matplotlib.pyplot (ii) matplotlib.pip (iii) matplotlib.numpy (iv) matplotlib.plt	1
13. Matplotlib allows you to create: (i) table (ii) chart (iii) maps (iv) infographics	1

14.	Which of the following commands is used to install matplot for coding?
	    (i) import plt.matplotlib as plot
	    (ii) import plot.matplotlib as pt
	    (iii) import matplotlib.plt as plot
	    (iv) import matplotlib.pyplot as plt
		1

15.	Any information about you or created by you that exists in digital form is referred to as_____.	1
16.	Creative creations of mind such as patents, trademarks and copyright are _____property.	1
17.	IT Amendment Act, 2008 came into force from the year_____.	1
18.	A_____ is an organized group of people who have gathered through the use of social media to protest for a social or political cause.	1
19.	Using someone else's Twitter handle to post something will be termed as: (i) Fraud (ii) Identity theft (iii) Online stealing (iv) Violation	1

20.	Credit card fraud may include:
	    (i) Stealing of credit card (ii) Unauthorized and illegal use of credit card
	    (iii) Stealing information (iv) Phishing
		1

21.	The Term 'Intellectual Property Rights' covers: (i) Copyrights (ii) Trademarks (iii) Patents (iv) All of these	1

Section -II

Both the case study based questions (22 & 23) are compulsory. Attempt any four sub parts from each question. Each sub question carries 1 mark .

22	**Case Study-I** **A dictionary Grade contains following data:** **Grade={'Name':['Rashmi','Harsh','Ganesh','Priya','Vivek','Anita',Karthik'],** **'Grade':['A1', 'A2', 'B1', 'A1', 'B2', 'A2', 'A1',** **Write statements for the following:(i) to (iv)**	
(i)	Create a dataframe called Gr.	1
(ii)	Add a column called percentage with the following data:[92,89,None,95,68,None,93]	1
(iii)	Delete the 3rd and 5th rows.	1
(iv)	What will the following code do? Gr.drop(0,axis=0)	1
23.	**Case Study-II** **The School offers WiFi to the students of Class XII. For communication, the network security-staff of the school is having a registered URL "schoolwifi-edu". On 17th September 2017, emails were received by all the students regarding expiry of their password. Instructions were also given renew their password within 24 hours by clicking on particular URL provided. On the basis of the above case study answer the questions given below.**	
(i)	Specify which type cybercrime is it? a. Spamming b. Phishing c. Identify theft d. Hacking	1
(ii)	URL stands for _____. a. Universal Resource Loader b. Uniform Resource Locater c. United Research Loader d. Uniform Resource Loader	1
(iii)	Unsolicited commercial email is known as: a. Malware b. Virus c. Spam d. Spyware	1

(iv)	WiFi Stands for	1
	a. Wireless Internet Frequent Interface	
	b. Wireless Functioning	
	c. Wireless Fidelity	
	d. Wire Free Internet	

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Part - B

Section – I
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24.	In Pandas S is an series with the following result: S=pd.Series([15,15,15,50,15]) The Series object is automatically indexed 0,1,2,3,4. Write a statement to assign the index as a, b, b, d, e explicity.	2
25.	What is Dataframe?	2
26.	Write the output of the following code: Import pandas as pd data=[['Aman',10], ['Raj',12], ['Sunil',13]] df=pd.DataFrame(data,columns=['Name','Age'],dtype=float) print(df)	2
27.	Write the basic difference between iterrows() and iteritems()?	2
28.	What are the various types of plots offered by matplotlib?	2
29.	Name the functions you will use to create a (i) Line Chart (ii) Bar Chart	2
30.	Why is the following code not producing any result? Why is it giving error? a=range(10,50,12) b=range(90,200,20) matplotlib.pyplot.plt(a,b)	2
31	What do you understand by 'Privacy of Data'.	2
32.	Write two applications of cyber law.	2
33.	What is cyber Stalking?	2

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Section -II
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34	Explain briefly the CSV format of sorting files.	3
35.	Write a Python code to create an empty dataframe.	3
36.	Write any three points of network security components.	3
37.	Explain Phishing.	3

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Section -III
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38.	Consider the dataframe df given as under:	5

	Emp_Id	Name	Gender	Designation	City
0	E01	Vikas	M	Manager	Ludhiana
1	E02	Priya	F	Programmer	Chandigarh
2	E03	Viswas	M	IT Officer	Patiala
3	E04	Rita	F	Programmer	Amritsar

Write a program to create the above dataframe and print only the Name, Gender and Designation for all rows .

39.	**Make Histogram Horizontally :** Given Below is the sugar levels for men and women in a city . Compare the sugar levels amongst them through a histogram. Men:[113,85,90,150,149,88,93,115,135,80,77,82,129] Women:[69,98,89,120,133,150,84,69,89,79,120,112,100]	5

Blood sugar analysis

| 40. | Write any five health hazards related to excessive use of technology. | 5 |