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

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. In order to work with Pandas in Python, you need to _____library in your program.	1
2. A _____ is a pandas data structure that represents a one-dimensional array-like object of indexed data.	1
3. Missing data in Pandas series and dataframes can be filled with a _____value.	1
4. _____ function is used to read data from a CSV file in your dataframe.	1
5. A two-dimensional labeled array that is an ordered collection of columns to store heterogeneous data types is: (i) Series (ii) NumPy array (iii) Dataframe (iv) Panel	1
6. Which of the following is statements is false? (i) Dataframe is size-mutable (ii) Dataframe is values-mutable (iii) Dataframe is immutable (iv) Dataframe is capable of holding multiple types of data.	1
7. Which attribute of dataframe is used to retrieve its shape? (i) T (ii) Ndim (iii) Empty (iv) Shape	1
8. _____is a collection of methods with matplotlib library which allows the user to construct 2D Plot easily and interactively.	1
9. _____is the text that appears on the top of the plot and defines what the chart is about.	1
10. A _____is a summarization tool for discrete or continuous data .	1
11. In a _____, the number of observations is marked with a single point at the midpoint of an interval.	1
12. The most popular data visualization library in Python is:	1

	(i) pip (ii) matinfolib (iii) matplotlib (iv) matpiplib	
13.	Which of the following is not a visualization under matplotlib? (i) Scatter plot (ii) Histogram (iii) Box plot (iv) Table plot	1
14.	Which of the following methods should be employed in the code to display a plot()? (i) Show() (ii) display() (iii) execute() (iv) plot()	1
15.	Stealing someone's intellectual work and representing it as your own is known as_____.	1
16.	Any fraudulent business practice that extracts money from an ignorant person is called a _____.	1
17.	Online_____ is a theft of personal information in order to commit a fraud.	1
18.	_____is a specific type of disorder where a person can't strike a balance between their time online and offline.	1
19.	Standard security protocol that establishes encrypted links between a web server and a browser is called_____ (i) Online Safety technology (ii) SDT technology (iii) Web encryption technology (iv) Secure Sockets Layer Technology	1
20.	Intellectual Property Rights protect the use of information and ideas that are of: (i) Ethical Value (ii) Moral Value (iii) Social Value (iv) Commercial Value	1
21.	Online personal account , personal websites are examples of : (i) Digital Wallet (ii) Digital Property (iiii) Digital Certificate (iv) Digital Signature	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** **Summit has to prepare a project on "Swachh Bharat Shreshth Bhart". He decides to get information from the internet. He downloads three WebPages (Webpage 1. Webpage 2. Webpage 3) Containing information on the given topic.** **(i) He read a paragraph on from webpage 1 and rephrased it in his own words. He finally pasted the rephrased paragraph in his project.** **(ii) He download three images of from webpage 2. He made a collage for his project using these images.** **(iii) He also download an icon from webpage 3 and pasted it on the front page of his project report.**	
(i)	Step(i) an example of _____ a. Plagiarism b. Paraphrasing c. Copyright infringement	1

	d. Intellectual property right	

(ii)	Step(ii) an act of _____
	
	    a. Plagiarism
	    b. Copyright infringement
	    c. Intellectual property right
	    d. Digital footprints
		1

(iii)	Step (iii) an act of _____ a. Plagiarism b. Paraphrasing c. Copyright infringement d. Intellectual property right	1
(iv)	A Website is a collection of _____ a. WebServer b. WebPages c. browsers d. hyperlinks	1

Part – B

Section – I

24.	What is a Pandas Series?	2
25.	What is the output of the following code: Import pandas as pd S1=pd.Series([1,2,2,7, 'Sachin',77.5]) Print(s1.head()) Print(s1.head(3))	2
26.	Write the output of the following code: import pandas as pd s=pd.Series([1,2,3,4,5], index=['a','b','c','d','e']) print(s*3) print(s>4)	2
27.	Write a small python code to create a dataframe with headings(a and b) from the list given below: [[1,2],[3,4],[5,6],[7,8]]	2
28.	What is matplotlib?	2
29.	What is data visualization? What is its Significance?	2
30.	What is a histogram? How is it useful?	2
31	What is the importance of Cyber laws?	2
32.	What do you mean by cyber security?	2
33.	What is cyber trolling?	2

Section -II

34	What are the advantages of CSV file formats.	3
35.	Write a Python code to create a dataframe with appropriate headings from the list given below: ['1','Akash',80], ['2','Sumit',70], ['3','Ishita',90], ['4','Vikas',85]	3
36.	Describe measures to recycle your e-waste safely.	3
37.	What do you understand by net etiquettes? Explain any two such etiquettes.	3

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

	Roll_No	Std_Name	Gender	Class	City
0	A1	Ritika	F	10th	Samana
1	B2	Aman	M	12th	Patiala
2	C4	Sandeep	F	9th	Sangrur
3	D5	Amar	M	10th	Nabha

Write a program to create the above dataframe and print only the Name, Gender and City for all rows .
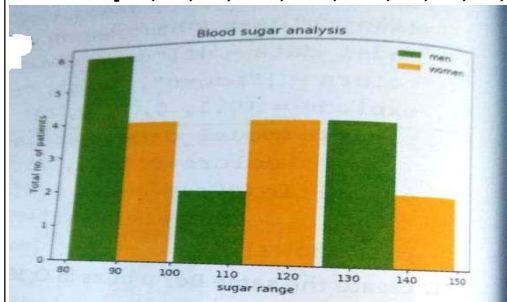
39.	**Make Histogram Vertically :** Given Below is the sugar levels for men and women in a city . Compare the sugar levels amongst them through a histogram. Men:[113,85,90,150,149,88,93,115,135,80,77,82,129] Women:[69,98,89,120,133,150,84,69,89,79,120,112,100] 	5
40.	What do you mean by phishing? Explain with the help of an example.	5