SET-A

Subject- Informatics Practices (065)
Date of Exam-20/01/2023

M.Marks-30 **Time-3Hrs**

1. Consider a given Series , "**S1**": 8

index	values
viii	180
ix	200
x	NaN
xi	150
xii	250

Write a program in Python Pandas to create the series.(Where viii,ix,x,..xii consider as indexes of the series)

Answer the following –

(i) To display the shape of the S1.

(ii) To display first two elements of S1.

(iii) To display total non-NaN elements of S1.

(iv) To display the elements of S1 is descending order

(v) To display 2nd element of S1.

(vi)To display the dimension of S1.

2.Write command to create the following table **EMP** : 7

Table-EMP

EmpNo	EName	Salary	Job
101	Raj Kumar	5000	Clerk
102	Bina Rai	12000	Manager
103	Amir Khan	6000	Salesman
104	Kuldeep Dutta	6000	Salesman
105	Jatin Jain	7000	Accountant
106	Mita Singh	6000	Clerk
107	Vimal Jain	10000	Manager

Write SQLcommands to:

a. Display the average salary of each type of job.

b. Count the total number of jobs available .

c. Display the total salary of Manager.

d. Display first 3 letters of EName and first 3 letters of Job.

e. Display all information is ascending order of salary, but don't include the records of "Jatin Jain".

3. Practical file 5

4.Project Work 5

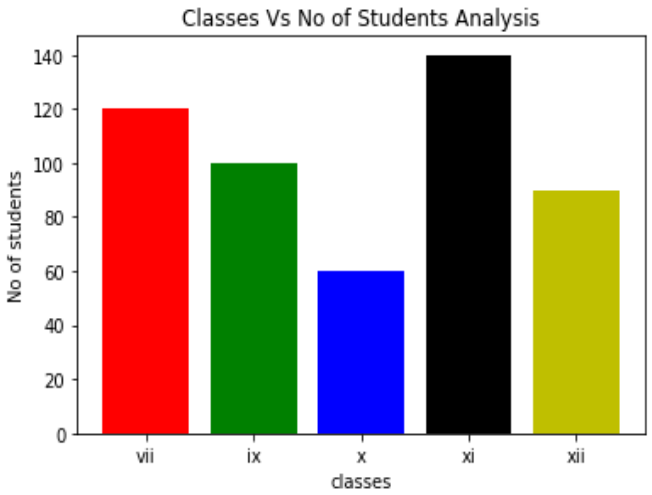
5. Viva-Voce 5

SET-B

Subject- Informatics Practices (065)
Date of Exam-20/01/2023

M.Marks-30 **Time-3Hrs**

1. Write the python code to draw following bar graph representing the number of students in each class. 8



2.Write command to create the following table **EMP**: 7

Table-EMP

EmpNo	EName	Salary	Job
101	Raj Kumar	5000	Clerk
102	Bina Rai	12000	Manager
103	Amir Khan	6000	Salesman
104	Kuldeep Dutta	6000	Salesman
105	Jatin Jain	7000	Accountant
106	Mita Singh	6000	Clerk
107	Vimal Jain	10000	Manager

Write SQLcommands to:

a. Display the total salary of each type of job.
b. Count the total number of Manager .
c. Display the highest salary of each type of job.
d. Display last 2 letters of EName and first 4 letters of Job.
e. Display all information is descending order of EName where length of EName is above 8.

3. Practical file 5

4.Project Work 5

5. Viva-Voce 5

SET-C

Subject- Informatics Practices (065)

Date of Exam-20/01/2023

M.Marks-30 **Time-3Hrs**

1. Consider the given DataFrame **'df':** 8

	Name	Marks
0	Deepjyoti	89
1	Dishant	92
2	Rahul	96
3	Alhina	93
4	Ankita	82

Write a program in Python Pandas to create the above DataFrame-df

Write suitable Python statements for the following:

i. Add a column called Result with the following data: ['A','A+','A++','B+','A+'].

ii. Add a new student named 'Rohit' having marks 21 and result-'B+'.

iii. Display column-Name

iv. Display 2nd row.

v. Delete the 2nd row.

2.Write command to create the following table **EMP** : 7

Table-EMP

EmpNo	EName	Salary	Job
101	Raj Kumar	5000	Clerk
102	Bina Rai	12000	Manager
103	Amir Khan	6000	Salesman
104	Kuldeep Dutta	6000	Salesman
105	Jatin Jain	7000	Accountant
106	Mita Singh	6000	Clerk
107	Vimal Jain	10000	Manager

Write SQLcommands to:

a. Display the lowest salary of Manager.

b. Count the total number of employee in each job where total number is above 1 .

c. Display the average salary of Manager.

d. Display 4 letters of EName staring from 2nd letter

e. Display all EName and their length where length is less than 9.

3. Practical file 5

4.Project Work 5

5. Viva-Voce 5

SET-D

Subject- Informatics Practices (065)

Class-XII

M.Marks-30 **Time-2Hrs**

1. Write a program to create a dataframe a list containing dictionaries of the exam performances of five students- 8

Name	Eng	Acct	Eco	Bst	IP
Pankaj	67	78	89	76	90
Rekha	98	87	84	89	93
Ajay	98	56	49	87	76
Raju	34	51	76	54	67
Suraj	78	54	45	63	61

Perform the following-

(i) Add the another column PE:[56,78,98,45,78]

(ii) Display from 1st to 3rd rows

(iii) Change the column Bst to BStudies

(iv) Display the columns from Name to Eco.

(v) Display the rows in order of Eng

2. Table: Employee

No	Name	Salary	Zone	Age	Grade	Dept
1	Mukul	30000	West	28	A	10
2	Kritika	35000	Centre	30	A	10
3	Naveen	32000	West	40		20
4	Uday	38000	North	38	C	30
5	Nupur	32000	East	26		20
6	Mokesh	37000	South	28	B	10
7	Shelly	36000	North	26	A	30

Create the above table-Employee and insert all the rows. Based on this tables write SQL statements for the following queries: - 7

a) To display employee name and their length.

b) To display the average salary of all the employees who are from West zone.

c) To count zone wise no of employees where no of employees less than 2.

d) To display department wise highest, lowest ,total and average salary.

e) To display zone wise average salary where average salary is above 35000 in descending order of zone name.

3. Practical file 5

4.Project Work 5

5. Viva-Voce 5

SET-E

Subject- Informatics Practices (065)

Class-XII

M.Marks-30 **Time-2Hrs**

1. Write a program in Python Pandas to create the following DataFrame batsman from a Dictionary: 8

B_NO	Name	Score1	Score2
1	Sunil Pillai	90	80
2	Gaurav Sharma	65	45
3	Piyush Goel	70	90
4	Kartik Thakur	80	76

Write code to perform the following operations on the DataFrame :

i. To display first two rows.

ii. To display Name column.

iii. To display Score1 in ascending order.

iv. To display the rows where Score2 is more than 75

v. To delete the record of B_N0=3

2. Table: Employee 7

No	Name	Salary	Zone	Age	Grade	Dept
1	Mukul	30000	West	28	A	10
2	Kritika	35000	Centre	30	A	10
3	Naveen	32000	West	40		20
4	Uday	38000	North	38	C	30
5	Nupur	32000	East	26		20
6	Mokesh	37000	South	28	B	10
7	Shelly	36000	North	26	A	30

Create the above table-Employee and insert all the rows. Based on this tables write SQL statements for the following queries: -

a) To display 2nd to 4th letters from all names.

b) Display the highest and lowest salaries of the employees .

c) Display lowest salary all employees where names contain 5 characters.

d) Display zone wise highest salary having highest salary above 35000.

e) To display no of employees in each department where minimum salary is 30000.

3. Practical file 5

4.Project Work 5

5. Viva-Voce 5