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HOLIDAY HOMEWORK 2025-2026

SUBJECT: INFORMATICS PRACTICES - 12 B

Assignment: (TAKE PRINTOUT OF THIS HOLIDAY HOMEWORK QUESTION PAPER SUBMIT WITH ANSWER IN A4 SHEET)

1) Create a team with your Classmate per team 3 members and Research the Project Topic in Website with Project Description also. Submit Hardcopy with along your teammate name on School Reopen that Day.
2) Write a python program to create a Series object,Data Frame Object with using of all Attribute and in-build-function In A4 Sheet.
3) Create a List of Dictionary and Dictionary of list using of Numpy Module write a program in A4 Sheet.
4) Write a SQL Commands for the Following Statements:

Q.1

Table : **ACTIVITY**

Acode	ActivityName	Stadium	ParticipantsNum	PrizeMoney	ScheduleDate
1001	Relay 100 × 4	Star Annex	16	10000	23-Jan-04
1002	High jump	Star Annex	10	12000	12-Dec-03
1003	Shot Put	Super Power	12	8000	14-Feb-04
1005	Long Jump	Star Annex	12	9000	01-Jan-04
1008	Discuss Throw	Super Power	10	15000	19-Mar-04

Table : **COACH**

Pcode	Name	Acode
1	Ahmad Hussain	1001
2	Ravinder	1008
3	Janila	1001
4	Naaz	1003

(*i*) To display the names of all activities with their Acodes in descending order.

(*ii*) To display sum of PrizeMoney for the Activities played in each of the Stadium separately.

(*iii*) To display the coach's names and Acodes in ascending order of Acode from the table COACH.

(*iv*) To display the content of all activities for which ScheduleDate is earlier than 01-01-2004 in ascending order of ParticipantsNum.

Q.2

Table : **STUDENT**

T_ID	Name	Age	Department	Date_of_join	Salary	Gender
1	Jugal	34	Computer Sc	10/01/2017	12000	M
2	Sharmila	31	History	24/03/2008	20000	F
3	Sandeep	32	Mathematics	12/12/2016	30000	M
4	Sangeeta	35	History	01/07/2015	40000	F
5	Rakesh	42	Mathematics	05/09/2007	25000	M
6	Shyam	50	History	27/06/2008	30000	M
7	Shiv Om	44	Computer Sc	25/02/2017	21000	M
8	Shalakha	33	Mathematics	31/07/2018	20000	F

Table : **POSTING**

P_ID	Department	Place
1	History	Agra
2	Mathematics	Raipur
3	Computer Science	Delhi

(*i*) To show all information about the teacher of History department.

(*ii*) To list the names of female teachers who are in Mathematics department.

(*iii*) To list the names of all teachers with their date of joining in ascending order.

(*iv*) To display teacher's name, salary, age for male teachers only.

(*v*) To display name, bonus for each teacher where bonus is 10% of salary.

Q.3

Table : **CABHUB**

Vcode	VehicleName	Make	Color	Capacity	Charges
100	Innova	Toyota	WHITE	7	15
102	SX4	Suzuki	BLUE	4	14
104	C Class	Mercedes	RED	4	35
105	A-Star	Suzuki	WHITE	3	14
108	Indigo	Tata	SILVER	3	12

Table : **CUSTOMER**

CCode	CName	Vcode
1	Hemant Sahu	101
2	Raj Lal	108
3	Feroza Shah	105
4	Ketan Dhal	104

(*i*) To display the names of all the white colored vehicles.

(*ii*) To display name of vehicle, make and capacity of vehicles in ascending order of their seating capacity.

(*iii*) To display the highest charges at which a vehicle can be hired from CABHUB.

(*iv*) To display the customer name and the corresponding name of the vehicle hired by them.

Q.4

Table : **CARDEN**

Ccode	CarName	Make	Color	Capacity	Charges
501	A-Star	Suzuki	RED	3	14
503	Indigo	Tata	SILVER	3	12
502	Innova	Toyota	WHITE	7	15
509	SX4	Suzuki	SILVER	4	14
510	C Class	Mercedes	RED	4	35

Table : **CUSTOMER**

CCode	Cname	Ccode
1001	Hemant Sahu	501
1002	Raj Lal	509
1003	Feroza Shah	503
1004	Ketan Dhal	502

(*i*) To display the names of all the silver colored cars.

(*ii*) To display name of car, make and capacity of cars in descending order of their seating capacity.

(*iii*) To display the highest charges at which a vehicle can be hired from CARDEN.

(*iv*) To display the customer name and the corresponding name of the cars hired by them.

5) Try this CaseBase Questions and Refer your Book. Submit in A4 Sheet.

	Color	Count	Price
Apple	Red	3	120
Apple	Green	9	110
Pear	Red	25	125
Pear	Green	26	150
Lime	Green	99	70

Answer any four questions from (i) to (v)

(*i*) *Which of the below given commands will yield the following output ?*

	Price
Apple	120
Apple	110
Pear	125
Pear	150
Lime	70

(*a*) data.iloc[: 4 , 2:]
(*b*) data.iloc[: , 2:]
(*c*) data.loc[: 4 , 2:]
(*d*) data.loc[: , 2:]

(*ii*) *Find all rows with the label "Apple". Extract all columns. (Choose the correct statement)*

(*a*) data.loc[: , 'Apple']
(*b*) data.iloc['Apple', :]
(*c*) data.iloc[:, 'Apple']
(*d*) data.loc['Apple', :]

(*iii*) *List 2nd, 3rd and 4th rows. (Choose the correct statement)*

(*a*) data.loc[0:3, :]
(*b*) data.loc[:, 0:3]
(*c*) data.iloc[0:3, :]
(*d*) data.loc[:, 0:3]

(*iv*) *List the rows having price more than 120. (Choose the correct statement)*

(*a*) data['Price'] > 120
(*b*) data[data['Price'] > 120]
(*c*) data[['Price'] > 120]
(*d*) data['Price' >120]

(*v*) *List the fruit having the maximum price. (Choose the correct statement)*

(*a*) data['Price'].max( )
(*b*) data[data['Price'].max()]
(*c*) data[data['Price'].max( ) == True]
(*d*) data[data['Price'] == data['Price'].max( )]