SAS Data set for Q1 to Q6: WORK.Product_records, WORK.Sales_employees and WORK.Sales_records

Q1. Create a data set 'WORK.allrecords' by applying MERGE statement in DATA STEP to link the following three data sets

1)'WORK.Product_records'

2)'WORK.Sales_employees' and

3)'WORK.Sales_records'

based on their common fields (a)'sales_id' and (b)'product_id'. The way of merging is 'intersection' (i.e. the resulting data set should contain the values of two variables (and rows) as long as they exist in one of the three tables above).

Q2. Split the data set 'WORK.Sales_employees' into the following four SAS sub sets:

1)'sale_em_south'

2)'sale_em_north',

3)'sale_em_west' and

4)'sale_em_east'

based on the value of variable 'area'.

Q3. Create a table 'WORK.transaction_june' by extracting some observations from the table 'WORK.Sales_records' under the following condition

(1) The transaction time is earlier than JUNE 1 2013, and

(2) product_id is in the list: 'p1','p3','p5' and 'p9', and

(3) Sales_id>60000.

Q4. Following the Q1 and Q3 above, create a data set 'WORK.records_new' by using 'MERGE' statement in DATA STEP to join the following three data sets

1)'sale_em_east'

2)'WORK.Product_records' and

3)'WORK.transaction_june'

based on their common fields 'sales_id' and 'product_id'. Answer and explain what kind of merging method should be used here if you wish to obtain the transaction records (the resulting data set contains the columns 'transaction_date', 'sale_amount' and 'product') for which the sales employees do not come from east area?

SAS Data set for Q5 to Q6: WORK.employee_1, WORK.employee_2 and WORK.owner

Q5. Executing the following three SAS programs. Check the result for each. Identify what are the differences among the outputs. Also explain the reason for the differences.

```
Data employee_new1;
   set WORK.employee_1 WORK.employee_2;
Run;
Data employee_new2;
   set WORK.employee_2 WORK.employee_1;
Run;
Data employee_new3;
   set WORK.employee_1; set WORK.employee_2;
Run;
Data employee_new4;
   set WORK.employee_2; set WORK.employee_2;
Run;
```

Q6. Observing the following data sets

1)'WORK.employee_1'

2)'WORK.employee_2' and

3)'WORK.owner'.

Write a SAS DATA STEP program to create the following new table:

	ownername	company	reg_time	emp_id	gender	salary	address	agegroup
1	David Berry	Mershine	02/07/2001	001	M	58000		36
2	David Berry	Mershine	02/07/2001	002	F	88000		41
3	David Berry	Mershine	02/07/2001	003	M	67200		39
4	David Berry	Mershine	02/07/2001	004	M	78300		32
5	David Berry	Mershine	02/07/2001	005	F	35000		50
6	David Berry	Mershine	02/07/2001	006	F	23600		29
7	David Berry	Mershine	02/07/2001	007	M	78000		38
8	David Berry	Mershine	02/07/2001	008	M	27900		49
9	David Berry	Mershine	02/07/2001	009	F	42000	303 river parkway	20_30
10	David Berry	Mershine	02/07/2001	010	F	29000	303 river parkway	40_50
11	David Berry	Mershine	02/07/2001	011	M	69000	303 river parkway	20_30
12	David Berry	Mershine	02/07/2001	012	F	52000	303 river parkway	30_40
13	David Berry	Mershine	02/07/2001	013	F	82000	303 river parkway	40_50
14	David Berry	Mershine	02/07/2001	014	M	.	303 river parkway	50_60