```
/***SAS solution codes Q1*******/
PROC EXPORT DATA= WORK.Retail_sales
            OUTFILE= "E:\ALL_BACKUP\homework\hk_ans\retail_sales.csv"
            DBMS=CSV REPLACE;
     PUTNAMES=NO;
RUN;


/*COMMENTS:

Actually you can use SAS 'EXPORT WIZARD' to obtain above SAS codes. Where the
'PUTNAMES=NO' option (it can be set in option button in  'EXPORT WIZARD')
enables SAS to export variable names into resulting  .CSV file. Therefore the file
'retail_sales.csv' only contains observations of the table 'WORK.Retail_sales'.
*/

/***SAS solution codes Q2*******/
/* the export SAS program generated: 'export_retail.sas' */

PROC EXPORT DATA= WORK.Retail_sales
            OUTFILE= "E:\ALL_BACKUP\homework\hk_ans\retail_sales"
            DBMS=DLM REPLACE;
     DELIMITER='7C'x;
     PUTNAMES=YES;
RUN;


/*COMMENTS:

Using the SAS 'EXPORT WIZARD' to export the data (choosing to export
delimitated file using '|' as delimiter). The SAS codes can be generated as above.
*/

/***SAS solution codes Q3*******/

PROC IMPORT OUT= WORK.retail_sales_1
            DATAFILE= "E:\ALL_BACKUP\homework\hk_ans\retail_sales.csv"
            DBMS=CSV REPLACE;
     GETNAMES=NO;
     DATAROW=1;
RUN;
```

```
/*COMMENTS:

Note when you import this CSV file without headers (no variable names in the file), you
will use the option 'GETNAMES=NO' and 'DATAROW=1' in the SAS procedure 'PROC
IMPORT'. When using ‘IMPORT WIZARD’ to finish the same job, you should also
select the same options (clicking option button)
*/


/***SAS solution codes, using PROC IMPORT  Q4 *******/

PROC IMPORT OUT= WORK.retail_sales_3
            DATAFILE= "E:\ALL_BACKUP\homework\hk_ans\retail_sales"
            DBMS=DLM REPLACE;
     DELIMITER='7C'x;
     GETNAMES=YES;
     DATAROW=2;
RUN;

/*COMMENTS:

When using ‘IMPORT WIZARD’ to finish the same job, you should select the character
'|' as delimiter (go to option dialog window by clicking option button).

*/


/***SAS solution codes Q5*******/
ODS PDF FILE='E:\result_ods.pdf' Title='Tea Survey by Age Group';
proc means data=WORK.Coffee_data mean max n;
    class age;
    var cup_tea;
 run;
 quit;
ODS PDF CLOSE;


/***SAS solution codes Q6*******/
ods trace on /listing;
proc univariate data=Coffee_data;
     var income;
     ods output MissingValues=MS Quantiles=QT;
  run;
 quit;
 ods trace off;
```

/*COMMENTS:

When you run SAS codes above, some ODS objects should be listed in SAS log window. (for example, 'MissingValues' and 'Quantiles'). These objects are actually the resulting information that SAS ODS can deliver. So you can use the following statement in 'proc univariate'

```
ods output MissingValues=MS Quantiles=QT;
```

to send 'MissingValues' into a SAS table called 'MS' and 'Quantiles' into a table called QT'. Where the 'MissingValues' represents missing value result and the 'Quantiles' stands for quantile information. They are both resulting object from 'proc univariate'.

*/

```
 /***SAS solution codes Q7*******/
PROC Template;
      LIST STYLES;
 Run;

ODS PDF FILE='E:\result_style.pdf' Title='Tea Survey by Age Group'
style=Styles.Plateau;

 proc means data=WORK.Coffee_data mean max n;
    class age;
    var cup_tea;
 run;
 quit;
ODS PDF CLOSE;
```