Item 1 of 63 Mark item for review

When attempting to minimize memory usage, the most efficient way to do group processing when using the MEANS procedure is to use:

A.
the BY statement.

B.
GROUPBY with the NOTSORTED specification.

C.
the CLASS statement.

D.
multiple WHERE statements.

C?

Item 2 of 63 Mark item for review

The SAS data set WORK.CHECK has a variable named Id_Code in it. Which SQL statement would create an index on this variable?

A.
create index Id_Code on WORK.CHECK;

B.
create index(Id_Code) on WORK.CHECK;

C.
make index=Id_Code from WORK.CHECK;

D.
define index(Id_Code) in WORK.CHECK;

A

Item 3 of 63 Mark item for review

Given the SAS data sets:

WORK.EMPLOYEE

Name	Dept
Alan	Sales
Michelle	Sales

WORK.NEWEMPLOYEE

Names	Salary
Michelle	50000
Paresh	60000

A SAS program is submitted and
the following is written to the SAS log:

```
101  proc sql;
102    select dept, name
103    from WORK.EMPLOYEE
104    where name=(select names
                   from newemployee
                   where salary > 40000)
ERROR: Subquery evaluated to more than one row.
105  ;
106  quit;
```

What would allow the program to
successfully execute without errors?

A.
Replace the where clause with:

```
where EMPLOYEE.Name=(select Names delimited with ','
                     from WORK.NEWEMPLOYEE
                     where Salary > 40000);
```

B.
Replace line 104 with:

```
where EMPLOYEE.Name =ANY (select Names separated with ','
                          from WORK.NEWEMPLOYEE
                          where Salary > 40000);
```

C.
Replace the equal sign with the IN operator.

D.

Qualify the column names with the table names.

C

Item 4 of 63 Mark item for review

Given the SAS data set SASUSER.HIGHWAY:

Steering	Seatbelt	Speed	Status	Count
absent	No	0-29	serious	31
absent	No	0-29	not	1419
absent	No	30-49	serious	191
absent	no	30-49	not	2004
absent	no	50+	serious	216

The following SAS program is submitted:

```
proc sql noprint;
   select distinct
      Speed  [_insert_SQL_clause_]
   from SASUSER.HIGHWAY
   ;
quit;

title1 "Speed values represented are: &GROUPS";
proc print data=SASUSER.HIGHWAY;
run;
```

Which SQL clause stores the text 0-29,30-49,50+ in the macro variable GROUPS?

A.
```
into &GROUPS
```

B.
```
into :GROUPS
```

C.
```
into :GROUPS separated by ','
```

D.

into &GROUPS separated by ','

C

Item 5 of 63 Mark item for review

The SAS data set WORK.CHECK has an index on the variable Code and the following SAS program is submitted.

```
proc sort data=WORK.CHECK;
   by Code;
run;
```

Which describes the result of submitting the SAS program?

A.
The index on Code is deleted.

B.
The index on Code is updated.

C.
The index on Code is uneffected.

D.
The sort does not execute.

Indexed data cannot be sorted, unless FORCE option is used.

D

Item 6 of 63 Mark item for review

The table WORK.PILOTS contains the following data:

WORK.PILOTS

Id	Name	Jobcode	Salary
001	Albert	PT1	50000
002	Brenda	PT1	70000

003	Carl	PT1	60000
004	Donna	PT2	80000
005	Edward	PT2	90000
006	Flora	PT3	100000

The data set was summarized to include average salary based on jobcode:

Jobcode	Salary	Avg
PT1	50000	60000
PT1	70000	60000
PT1	60000	60000
PT2	80000	85000
PT2	90000	85000
PT3	100000	100000

Which SQL statement could NOT generate this result?

A.

```
select
  Jobcode,
  Salary,
  avg(Salary) label='Avg'
from WORK.PILOTS
group by Jobcode
order by Id
;
```

B.

```
select
  Jobcode,
  Salary,
  (select avg(Salary)
  from WORK.PILOTS as P1
  where P1.Jobcode=P2.Jobcode) as Avg
from WORK.PILOTS as P2
order by Id
;
```

C.

```
select
```

```
   Jobcode,
   Salary,
   (select avg(Salary)
   from WORK.PILOTS
   group by Jobcode) as Avg
from WORK.PILOTS
order by Id
;
```

D.

```
 select
   Jobcode,
   Salary,
   Avg
from
   WORK.PILOTS,
  (select
      Jobcode as Jc,
      avg(Salary) as Avg
   from WORK.PILOTS
   group by 1)
where Jobcode=Jc
order by Id
;
```

C

Item 7 of 63 Mark item for review

A quick rule of thumb for the space required to run PROC SORT is:

A. two times the size of the SAS data set being sorted.

B. three times the size of the SAS data set being sorted.

C. four times the size of the SAS data set being sorted.

D.
five times the size of the SAS data set being sorted.

A or C?
Two to four times

Item 8 of 63 Mark item for review

Multi-threaded processing for PROC SORT will effect which of these system resources?

A.
CPU time will decrease,
wall clock time will decrease

B.
CPU time will increase,
wall clock time will decrease

C.
CPU time will decrease,
wall clock time will increase

D.
CPU time will increase,
wall clock time will increase

B

Item 9 of 63 Mark item for review

Given the SAS data set WORK.TRANSACT:

Rep	Cost	Ship
SMITH	200	50
SMITH	400	20
JONES	100	10
SMITH	600	100
JONES	100	5

The following output is desired:

Rep	
JONES	105
SMITH	250

Which SQL statement was used?

A.

```
select
  rep,
  min(Cost+Ship)
from WORK.TRANSACT
order by Rep
;
```

B.

```
select
  Rep,
  min(Cost,Ship) as Min
from WORK.TRANSACT
summary by Rep
order by Rep
;
```

C.

```
select
  Rep,
  min(Cost,Ship)
from WORK.TRANSACT
group by Rep
order by Rep
;
```

D.

```
select
  Rep,
  min(Cost+Ship)
from WORK.TRANSACT
group by Rep
order by Rep
;
```

D

Item 10 of 63 Mark item for review

The following SAS program is submitted:

```
%let Value=9;
%let Add=5;
%let Newval=%eval(&Value/&Add);
%put &Newval;
```

What is the value of the macro variable Newval when the %PUT statement executes?

A.
0.555

B.
2

C.
1.8

D.
1

D

Item 11 of 63 Mark item for review

The following SAS code is submitted:

```
data WORK.TEMP WORK.ERRORS / view=WORK.TEMP;
   infile RAWDATA;
   input Xa Xb Xc;
   if Xa=. then output WORK.ERRORS;
   else output WORK.TEMP;
run;
```

Which of the following is true of the WORK.ERRORS data set?

A.
The data set is created when the DATA step is submitted.

B.
The data set is created when the view TEMP is used in another SAS step.

C.
The data set is not created because the DATA statement contains a syntax error.

D.
The descriptor portion of WORK.ERRORS is created when the DATA step is submitted.

C

Item 12 of 63 Mark item for review

Which title statement would always display the current date?

A.
```
title "Today is: &sysdate.";
```

B.
```
title "Today is: &sysdate9.";
```

C.
```
title "Today is: &today.";
```

D.
```
title "Today is: %sysfunc(today(),worddate.)";
```

D? ?
Watch out those periods!!

Item 13 of 63 Mark item for review

Given the SAS data sets:

WORK.ONE

Id	Name
112	Smith
243	Wei
457	Jones

WORK.TWO

Id	Salary
243	150000
355	45000
523	75000

The following SAS program is submitted:

```
data WORK.COMBINE;
   merge WORK.ONE WORK.TWO;
   by Id;
run;
```

Which SQL procedure statement produces the same results?

A.

```
 create table WORK.COMBINE as
select
   Id,
   Name,
   Salary
from
   WORK.ONE
   full join
   WORK.TWO
on ONE.Id=TWO.Id
;
```

B.

```
 create table WORK.COMBINE as
select
   coalesce(ONE.Id, TWO.Id) as Id,
   Name,
   Salary
from
   WORK.ONE,
   WORK.TWO
where ONE.Id=TWO.Id
;
```

C.

```
 create table WORK.COMBINE as
select
   coalesce(ONE.Id, TWO.Id) as Id,
   Name,
   Salary
from
   WORK.ONE
   full join
   WORK.TWO
on ONE.Id=TWO.Id
order by Id
;
```

D.

```
 create table WORK.COMBINE as
select
   coalesce(ONE.Id, TWO.Id) as Id,
   Name,
   Salary
from
   WORK.ONE,
   WORK.TWO
where ONE.Id=TWO.Id
order by ONE.Id
;
```

C

Item 14 of 63 Mark item for review

The following SAS program is submitted:

```
proc contents data=TESTDATA.ONE;
run;
```

Which SQL procedure step produces similar information about the column attributes of TESTDATA.ONE?

A.

```
proc sql;
  contents from TESTDATA.ONE;
quit;
```

B.

```
proc sql;
  describe from TESTDATA.ONE;
quit;
```

C.

```
proc sql;
  contents table TESTDATA.ONE;
quit;
```

D.

```
proc sql;
  describe table TESTDATA.ONE;
quit;
```

D

Item 15 of 63 Mark item for review

Given the SAS data set WORK.ONE:

Rep	Cost
SMITH	200
SMITH	400
JONES	100
SMITH	600
JONES	100

The following SAS program is submitted;

```
proc sql;
   select
      Rep,
      avg(Cost)
   from WORK.ONE
   order by Rep
   ;
```

```
quit;
```

Which result set would be generated?

A.

```
 JONES      280
JONES      280
SMITH      280
SMITH      280
SMITH      280
```

B.

```
 JONES      600
SMITH      100
```

C.

```
 JONES      280
SMITH      280
```

D.

```
 JONES      100
JONES      100
SMITH      600
SMITH      600
SMITH      600
```

A

Item 16 of 63 Mark item for review

Given the SAS data sets:

WORK.MATH1A

Name	Fi
Lauren	L
Patel	A
Chang	Z
Hillier	R

WORK.MATH1B

Name	Fi
Smith	M
Lauren	L
Patel	A

The following SAS program is submitted:

```
proc sql;
   select *
   from WORK.MATH1A
   [_insert_set_operator_]
   select *
   from WORK.MATH1B
   ;
quit;
```

The following output is desired:

Name	Fi
Lauren	L
Patel	A
Chang	Z
Hillier	R
Smith	M
Lauren	L
Patel	A

Which SQL set operator completes the program and generates the desired output?

A.
append corr

B.
union corr

C.
outer union corr

D.
intersect corr

C

Item 17 of 63 Mark item for review

Which of the following is an advantage of SAS views?

A.
SAS views can access the most current data in files that are frequently updated.

B.
SAS views can avoid storing a SAS copy of a large data file.

C.
SAS views can decrease programming time.

D.
both A and B are true

D

Item 18 of 63 Mark item for review

In what order does SAS search for format definitions by default?

A.
1. WORK.FORMATS
2. LIBRARY.FORMATS

B.
1. LIBRARY.FORMATS
2. WORK.FORMATS

C.
There is no default order, it must be defined by the user.

D.
All user defined libraries that have a catalog named FORMATS, in alphabetic order.

A

Item 19 of 63 Mark item for review

Given the dataset WORK.STUDENTS:

Name	Age
Mary	15
Philip	16
Robert	12
Ronald	15

The following SAS program is submitted:

```
%let Value=Philip;

proc print data=WORK.STUDENTS;
   [_insert_WHERE_statement_]
run;
```

Which WHERE statement successfully completes the program and produces a report?

A.
```
where upcase(Name)=upcase(&Value);
```

B.
```
where upcase(Name)=%upcase(&Value);
```

C.
```
where upcase(Name)="upcase(&Value)";
```

D.
```
where upcase(Name)="%upcase(&Value)";
```

D

Item 20 of 63 Mark item for review

The following SAS program is submitted:

```
data WORK.TEMP;
   length A B 3 X;
   infile RAWDATA;
   input A B X;
run;
```

What is the length of variable A?

A.
3

B.
8

C.
WORK.TEMP is not created - X has an invalid length.

D.
Unknown.

C ??

Item 21 of 63 Mark item for review

The following SAS program is submitted:

```
data WORK.NEW;
   do i=1, 2, 3;
      Next=cats('March' || i );
      infile XYZ
         filevar=Next
         end=Eof;
      do until (Eof);
         input Dept $ Sales;
      end;
   end;
```

run;

The purpose of the FILEVAR=option on the INFILE statement is to name the variable Next, whose value:

A.
points to a new input file.

B.
is output to the SAS data set WORK.NEW.

C.
is an input SAS data set reference.

D.
points to an aggregate storage location.

A

Item 22 of 63 Mark item for review

Given the following partial SAS log:

```
NOTE: SQL table SASHELP.CLASS was created like:

create table SASHELP.CLASS( bufsize=4096 )
  (
   Name char(8),
   Sex char(1),
   Age num,
   Height num,
   Weight num
  );
```

Which SQL procedure statement generated this output?

A.
CONTENTS FROM SASHELP.CLASS;

B.

```
CREATE FROM SASHELP.CLASS INTO LOG;
```

C.

```
DESCRIBE TABLE SASHELP.CLASS;
```

D.

```
VALIDATE SELECT * FROM SASHELP.CLASS;
```

C

Item 23 of 63 Mark item for review

Given the SAS data set SASUSER.HIGHWAY:

Steering	Seatbelt	Speed	Status	Count
absent	No	0-29	serious	31
absent	No	0-29	not	1419
absent	No	30-49	serious	191
absent	no	30-49	not	2004
absent	no	50+	serious	216

The following SAS program is submitted:

```
%macro SPLIT;
   proc sort
         data=SASUSER.HIGHWAY
         out=WORK.UNIQUES(keep=Status)
         nodupkey;
      by Status;
   run;

   data _null_;
      set uniques end=Lastobs;
      call symputx('Status'||left(_n_),Status);
      if Lastobs then call symputx('Count',_n_);
   run;

   %local i;
   data
```

```
        %do i=1 %to &count;
           [_insert_reference_]
        %end;
        ;
        set SASUSER.HIGHWAY;
        select(Status);
           %do i=1 %to &Count;
              when("[_insert_reference_]") output [_insert_reference_];
           %end;
           otherwise;
        end;
     run;
  %mend;

  %SPLIT
```

What macro variable reference completes the program to create the WORK.NOT and WORK.SERIOUS data sets?

A. &Status&i

B. &&Status&i

C. &Status&Count

D. &&Status&Count

B

Item 24 of 63 Mark item for review

The following SAS program is submitted:

```
%let Num1=7;
%let Num2=3;
%let Result=%eval(&Num1/&Num2);
```

```
%put &Result;
```

What is the value of the macro variable Result when the %PUT statement executes?

A.
2.3

B.
2

C.
. (missing value)

D.
2.33333333333333

B

Item 25 of 63 Mark item for review

Given the SAS data set SASUSER.HIGHWAY:

Steering	Seatbelt	Speed	Status	Count
absent	No	0-29	serious	31
absent	No	0-29	not	1419
absent	No	30-49	serious	191
absent	no	30-49	not	2004
absent	no	50+	serious	216

The following SAS program is submitted:

```
%macro HIGHWAY(Belt=no);
   proc print data=SASUSER.HIGHWAY;
      where Seatbelt="&Belt" ;
   run;
%mend;

%HIGHWAY(Belt=No)
```

How many observations appear in
the generated report?

A.
0

B.
2

C.
3

D.
5

C

Item 26 of 63 Mark item for review

Given the following SAS data sets:

WORK.VISIT1

Id	Expense
001	500
001	400
003	350

WORK.VISIT2

Id	Cost
001	300
002	600

The following result set was summarized and
consolidated using the SQL procedure:

Id	Cost
001	300
001	900
002	600
003	350

Which of the following SQL statements was
most likely used to generate this result?

A.

```
 select
   Id,
   sum(Expense) label='COST'
from WORK.VISIT1
group by 1
union all
select
   Id,
   sum(Cost)
from WORK.VISIT2
group by 1
order by 1,2
;
```

B.

```
 select
   id,
   sum(expense) as COST
from
   WORK.VISIT1(rename=(Expense=Cost)),
   WORK.VISIT2
where VISIT1.Id=VISIT2.Id
group by Id
order by
   Id,
   Cost
;
```

C.

```
 select
   VISIT1.Id,
   sum(Cost) as Cost
from
   WORK.VISIT1(rename=(Expense=Cost)),
   WORK.VISIT2
where VISIT1.Id=VISIT2.Id
group by Id
order by
   Id,
   Cost
;
```

D.

```
 select
   Id,
   sum(Expense) as Cost
from WORK.VISIT1
group by Id
outer union corr
select
   Id,
   sum(Cost)
from WORK.VISIT2
group by Id
order by 1,2
;
```

A

Item 27 of 63 Mark item for review

Given the SAS data sets:

WORK.FIRST		WORK.SECOND	
Common	X	Common	Y
A	10	A	1
A	13	A	3
A	14	B	4
B	9	B	2

The following SAS program is submitted:

```
data WORK.COMBINE;
   set WORK.FIRST;
   set WORK.SECOND;
run;
```

What data values are stored in data set WORK.COMBINE?

A.

Common	X	Y
A	10	1
A	13	3
B	14	4
B	9	2

B.

Common	X	Y
A	10	1
A	13	3
A	14	3
B	9	4
B	9	2

C.

Common	X	Y
A	10	1
A	13	3
A	14	.
B	9	4
B	.	2

D.

Common	X	Y
A	10	1
A	13	1
A	14	1
A	10	3
A	13	3
A	14	3
B	9	4
B	9	2

A

Item 28 of 63 Mark item for review

Which of the following ARRAY statements is similar to the statement array Yr{1974:2007} Yr1974-Yr2007; and will compile without errors?

A.
array Yr{34} Yr1974-Yr2007;

B.
array Yr{74:07} Yr1974-Yr2007;

C.
array Yr{74-07} Yr1974-Yr2007;

D.
array Yr{1974-2007} Yr1974-Yr2007;

A

Item 29 of 63 Mark item for review

The following program is submitted to check the variables Xa, Xb, and Xc in the SASUSER.LOOK data set:

```
data _null_ WORK.BAD_DATA / view=WORK.BAD_DATA ;
   set SASUSER.LOOK(keep=Xa Xb Xc);
   length _Check_ $ 10 ;
   if Xa=. then _check_=trim(_Check_)!!" Xa" ;
   if Xb=. then _check_=trim(_Check_)!!" Xb" ;
   if Xc=. then _check_=trim(_Check_)!!" Xc" ;
   put Xa= Xb= Xc= _check_= ;
run ;
```

When is the PUT statement executed?

A.
when the code is submitted

B.
only when the WORK.BAD_DATA view is used

C.
both when the code is submitted and the view is used

D.
never, the use of _null_ in a view is a syntax error

B

Item 30 of 63 Mark item for review

The following SAS program is submitted:

```
%let product=merchandise;
[_insert_%put_statement_]
```

and the following message is written to the SAS log:

the value is "merchandise"

Which macro statement wrote this message?

A.
```
%put the value is '"'&product.'"';
```

B.
```
%put the value is %quote(&product.);
```

C.
```
%put the value is "&product.";
```

D.
```
%put the value is ""&product."";
```

C

Item 31 of 63 Mark item for review

Given the SAS data sets:

WORK.ONE

X	Y
A	10
A	3
A	14
B	9

WORK.TWO

SumY
36

The following SAS DATA step is submitted:

```
data WORK.COMBINE;
   if _n_=1 then set WORK.TWO;
   set WORK.ONE;
run;
```

What data values are stored in data set WORK.COMBINE?

A.
An ERROR message is written to the SAS log and the data set WORK.COMBINE is not created.

B.

SumY	X	Y
36	A	10

C.

SumY	X	Y
36	A	10
.	A	3
.	A	14
.	B	9

D.

SumY	X	Y
36	A	10
36	A	3
36	A	14
36	B	9

D

Item 32 of 63 Mark item for review

The following SAS program is submitted:

```
data WORK.NEW(bufno=4);
   set WORK.OLD(bufno=3);
run;
```

Why are the BUFNO options used?

A.
to reduce memory usage

B.
to reduce CPU time usage

C.
to reduce the amount of data read

D.
to reduce the number of I/O operations

D

Item 33 of 63 Mark item for review

Given the following program
and desired results:

```
%let Thing1=gift;
%let Thing2=surprise;
%let Gift1=book;
%let Gift2=jewelry;
%let Surprise1=dinner;
%let Surprise2=movie;
```

```
%let Pick=2;
%let Choice=surprise;

Desired %PUT Results in LOG:
My favorite surprise is a movie

What is the correct %PUT statement
that generates the desired results?
```

A.
```
%put My favorite &Thing&Pick is a &&Choice&Pick;
```

B.
```
%put My favorite &&Thing&pick is a &&&Choice&Pick;
```

C.
```
%put My favorite &Choice&pick is a &&Thing&Pick;
```

D.
```
%put My favorite &&Choice&pick is a &&&Thing&Pick;
```

B

Item 34 of 63 Mark item for review

Given the SAS dataset WORK.ONE

Name	Salary
Hans	200
Maria	205
Jose	310
Ariel	523

The following SAS program is submitted:

```
proc sql;
   [_insert_select_clause_]
   from WORK.ONE
   ;
```

```
quit;
```

The following output is desired:

Salary	Bonus
200	20
205	20.5
310	31
523	52.3

Which SQL procedure clause completes the program and generates the desired output?

A.
```
select Salary  Bonus as Salary*.10 as Bonus
```

B.
```
select Salary  Bonus=Salary*.10 'Bonus'
```

C.
```
select Salary, Salary*.10 label='Bonus'
```

D.
```
select Salary, Salary*.10 column="Bonus"
```

C

Item 35 of 63 Mark item for review

The following SAS program is submitted:

```
options reuse=YES;
data SASUSER.REALESTATE(compress=CHAR);
   set SASUSER.HOUSES;
run;
```

What is the effect of the reuse=YES SAS system option?

A.
It allows updates in place.

B.
It tracks and recycles free space.

C.
It allows a permanently stored SAS data set to be replaced.

D.
It allows users to access the same SAS data set concurrently.

B

Item 36 of 63 Mark item for review

Which statement is true for Data step HASH objects?

A.
The key component must be numeric.

B.
The data component may consist of numeric and character values.

C.
The HASH object is created in one step and referenced in another.

D.
The HASH object must be smaller than 2 to the 8th power bytes.

B

Item 37 of 63 Mark item for review

Given the SAS data sets:

WORK.CLASS1 WORK.CLASS2

```
Name    Course          Name     Class
------  ------          -------  -----
Lauren  MATH1           Smith    MATH2
Patel   MATH1           Farmer   MATH2
Chang   MATH1           Patel    MATH2
Chang   MATH3           Hillier  MATH2
```

The following SAS program is submitted:

```
proc sql;
   select Name
   from WORK.CLASS1
   [_insert_set_operator_]
   select Name
   from WORK.CLASS2
   ;
quit;
```

The following output is desired:

```
      Name
      ------
      Chang
      Chang
      Lauren
```

Which SQL set operator completes the program and generates the desired output?

A.
intersect corr

B.
except all

C.
intersect all

D.
left except

B

Item 38 of 63 Mark item for review

The following SAS program is submitted:

```
%macro CHECK(Num=4);
   %let Result=%eval(&Num gt 5);
   %put Result is &result;
%mend;
%check(Num=10)
```

What is written to the SAS log?

A.
Result is 0

B.
Result is 1

C.
Result is 10 gt 5

D.
Result is true

B

Item 39 of 63 Mark item for review

The following SAS program is submitted:

```
%let Mv=shoes;
%macro PRODUCT(Mv=bicycles);
   %let Mv=clothes;
%mend;

%PRODUCT(Mv=tents)
%put Mv is &Mv;
```

What is written to the SAS log?

A.
Mv is bicycles

B.
Mv is clothes

C.
Mv is shoes

D.
Mv is tents

C

Item 40 of 63 Mark item for review

Which of the following SAS System options can aid in benchmarking?

A.
BUFSIZE= and BUFNO=

B.
FULLSTIMER

C.
IOBLOCKSIZE=

D.
SYSTIMER

B

Item 41 of 63 Mark item for review

Given the following macro program:

```
%macro MAKEPGM(NEWNAME, SETNAME, PRINT);
   data &NEWNAME;
      set &SETNAME;
   run;
   %if &PRINT=YES %then %do;
      proc print data=&NEWNAME.(obs=10);
      run ;
   %end;
%mend;
```

Which option would provide feedback in the log about the parameter values passed into this macro when invoked?

A. MPRINT

B. MDEBUG

C. MLOGIC

D. MPARAM

C

Item 42 of 63 Mark item for review

The NOTSORTED option on the BY statement cannot be used with which other statement or option?

A. SET

B. MERGE

C.
IF FIRST.by-variable

D.
BY GROUPFORMAT by-variable

B

Item 43 of 63 Mark item for review

Given the SAS data set WORK.ONE:

Rep	Cost
SMITH	200
SMITH	400
JONES	100
SMITH	600
JONES	100

The following SAS program is submitted:

```
proc sql;
   select
      Rep,
      avg(Cost) as Average
   from WORK.ONE
   [either__insert_SQL_where_clause_]
   group by Rep
   [_or_  _insert_SQL_having_clause_]
   ;
quit;
```

The following output is desired:

Rep	Average
SMITH	400

Which SQL clause completes the program and generates the desired output?

A.
where calculated Average > (select avg(Cost) from WORK.ONE)

B.
having Average > (select avg(Cost) from WORK.ONE)

C.
having avg(Cost) < (select avg(Cost) from WORK.ONE)

D.
where avg(Cost) > (select avg(Cost) from WORK.ONE)

B

Item 44 of 63 Mark item for review

Which dictionary table provides information on each occurrence of the variable named LastName?

A.
DICTIONARY.TABLES

B.
DICTIONARY.COLUMNS

C.
DICTIONARY.MEMBERS

D.
DICTIONARY.VARIABLES

B

Item 45 of 63 Mark item for review

To create a list of unique Customer_Id values from the customer data set, which

of the following techniques can be used?

technique 1: proc SORT with NODUPKEY and OUT=
technique 2: data step with IF FIRST.Customer_Id=1
technique 3: proc SQL with the SELECT DISTINCT statement

A.
only technique 1

B.
techniques 1 and 2

C.
techniques 1 and 3

D.
techniques 1, 2, or 3

D

Item 46 of 63 Mark item for review

Given the SAS data sets:

WORK.CLASS1

Name	Course
Lauren	MATH1
Patel	MATH1
Chang	MATH1

WORK.CLASS2

Name	Class
Smith	MATH2
Farmer	MATH2
Patel	MATH2
Hillier	MATH2

The following SAS program is submitted:

```
proc sql;
   select Name
   from WORK.CLASS1
   [_insert_set_operator_]
   select Name
   from WORK.CLASS2
```

```
    ;
quit;
```

The following output is desired:

```
            Name
            ------
            Chang
            Lauren
```

Which SQL set operator completes the program and generates the desired output?

A.
```
intersect corr
```

B.
```
except
```

C.
```
intersect
```

D.
```
left except
```

B

Item 47 of 63 Mark item for review

The following SAS program is submitted:

```
%macro execute;
   [_insert_statement_here_]
      proc print data=SASUSER.HOUSES;
      run;
   %end;
%mend execute;
%execute
```

Which statement completes the program so that the PROC PRINT step executes on Thursday?

A.

```
if &sysday = Thursday then %do;
```

B.

```
%if &sysday = Thursday %then %do;
```

C.

```
%if "&sysday" = Thursday %then %do;
```

D.

```
%if &sysday = "Thursday" %then %do;
```

B

Item 48 of 63 Mark item for review

Given the following program and data:

```
data WORK.BDAYINFO;
  infile datalines;
  input Name $ Birthday : mmddyy10.;
datalines;
Alan  11/15/1950
Barb  08/23/1966
Carl  09/01/1963
;
run;

%let Want=23AUG1966;
proc print data=WORK.BDAYINFO;
  [_insert_statement_]
run;
```

What is the WHERE statement that successfully completes the PROC PRINT and selects the observation for Barb?

A.

```
where Birthday=&Want;
```

B.
```
where Birthday="&Want";
```

C.
```
where Birthday="&Want"d;
```

D.
```
where Birthday='&Want'd;
```

C

Item 49 of 63 Mark item for review

Which macro statement would remove the macro variable Mv_Info from the symbol table?

A.
```
%mdelete &Mv_Info;
```

B.
```
%symerase Mv_Info;
```

C.
```
%symdel &Mv_Info;
```

D.
```
%symdel Mv_Info;
```

D

Item 50 of 63 Mark item for review

The table WORK.PILOTS contains the following data:

Id	Name	Jobcode	Salary
001	Albert	PT1	50000
002	Brenda	PT1	70000
003	Carl	PT1	60000

004	Donna	PT2	80000
005	Edward	PT2	90000
006	Flora	PT3	100000

A query was constructed to display the pilot salary means at each level of Jobcode and the difference to the overall mean salary:

Jobcode	Average	Difference
PT1	60000	-15000
PT2	85000	10000
PT3	100000	25000

Which select statement could NOT have produced this output?

A.

```
select
  Jobcode,
  avg(Salary) as Average,
  calculated Average - Overall as difference
from
  WORK.PILOTS,
  (select avg(Salary) as Overall from WORK.PILOTS)
group by jobcode
;
```

B.

```
select
  Jobcode,
  avg(Salary) as Average,
  (select avg(Salary) from WORK.PILOTS) as Overall,     as…from
  calculated Average - Overall as Difference
from WORK.PILOTS
group by 1
;
```

C.

```
select
  Jobcode,
  Average,
  Average-Overall as Difference
```

```
from
   (select Jobcode, avg(Salary) as Average
   from WORK.PILOTS
   group by 1),
   (select avg(Salary) as Overall
   from WORK.PILOTS)
;
```

D.

```
 select
   Jobcode,
   avg(Salary) as Average,
   calculated Average-(select avg(Salary) from WORK.PILOTS)
      as Difference
from WORK.PILOTS
group by 1
;
```

B

Item 51 of 63 Mark item for review

The SAS data set WORK.TEMP is indexed on the variable Id:

Id	Amount
P	52
P	45
A	13
A	56
R	34
R	12
R	78

The following SAS program is submitted:

```
proc print data=WORK.TEMP;
   [_insert_BY_statement_]
run;
```

Which BY statement completes the program,

creates a listing report that is grouped by Id, and completes without errors?

A.
by Id;

B.
by Id grouped;

C.
by Id descending;

D.
by descending Id;

A

Item 52 of 63 Mark item for review

To create a dataset with unique values of a given varible using a data step and the FIRST. and LAST. varaibales, it is assumed that the input dataset is:

A.
sorted on that variable.

B.
indexed by that variable.

C.
naturally in order.

D.
any of the above A, B, or C

A

Item 53 of 63 Mark item for review

The SASFILE statement requests that a SAS data set be opened and loaded into memory:

A.
one page at a time.

B.
one variable at a time.

C.
one observation at a time.

D.
in its entirety, if possible.

D

Item 54 of 63 Mark item for review

The following SAS program is submitted:

```
%let Name1=Shoes;
%let Name2=Clothes;
%let Root=name;
%let Suffix=2;
%put &&&Root&Suffix;
```

What is written to the SAS log?

A.
&Name2

B.
Clothes

C.
&&&Root&Suffix

D.

WARNING: Apparent symbolic reference ROOT2 not resolved.

B

Item 55 of 63 Mark item for review

Given the SAS data sets:

WORK.ONE

Year	Qtr	Budget
2001	3	500
2001	4	400
2003	1	350

WORK.TWO

Year	Qtr	Sales
2001	4	300
2002	1	600

The following SAS program is submitted:

```
proc sql;
   select
      TWO.*,
      budget
   from
      WORK.ONE
      [_insert_join_operator_]
      WORK.TWO
   on ONE.Year=TWO.Year
   ;
quit;
```

The following output is desired:

Year	Qtr	Sales	Budget
2001	4	300	500
2001	4	300	400
2002	1	600	.
.	.	.	350

Which join operator completes the program and generates the desired output?

A.
left join

B.
right join

C.
full join

D.
outer join

C

Item 56 of 63 Mark item for review

The SAS data set WORK.ADDRESSES contains the email addresses of The XYZ Corporation's customers in a variable named Email_Address. The following DATA step is submitted:

```
data  _null_;
   set WORK.ADDRESSES;
   [_insert_statement_]
   put "filename mail email '" Email_Address  "'; ";
   put "data _null_;";
   put "   file mail;";
   put "   put 'Thank you for your continued';";
   put "   put 'support of The XYZ Corporation.';";
   put "   put 'We appreciate your patronage.';";
   put "   put 'Sincerely,';" ;
   put "   put 'The XYZ Corporation';";
   put "run;" ;
run;
```

Which statement completes the program and creates a SAS program file?

A.
infile "c:\email.sas";

B.
output "c:\email.sas";

C.
file "c:\email.sas";

D.
None of the above.

C

Item 57 of 63 Mark item for review

Which of the following is true about the COMPRESS=YES data set option?

A.
It uses the Ross Data Compression method to compress numeric data.

B.
It is most effective with character data that contains repeated characters.

C.
It is most effective with numeric data that represents large numeric values.

D.
It is most effective with character data that contains patterns, rather than simple repetitions.

B

Item 58 of 63 Mark item for review

Given the SAS dataset WORK.ONE:

```
Salary
------
   200
   205
     .
   523
```

The following SAS program is submitted:

```
proc sql;
   select *
   from WORK.ONE
   [_insert_where_clause_]
   ;
quit;
```

The following output is desired:

```
Salary
------
   200
   205
   523
```

Which WHERE expression completes
the program and generates the desired output?

A.
where Salary is not .

B.
where Salary ne missing

C.
where Salary ne null

D.
where Salary is not missing

D

Item 59 of 63 Mark item for review

The SAS data set WORK.TEST has an index
on the variable Id and the following SAS

program is submitted.

```
data WORK.TEST;
   set WORK.TEST(
      keep=Id Var_1 Var_2
      rename=(Id=Id_Code));
   Total=sum(Var_1, Var_2);
run;
```

Which describes the result of
submitting the SAS program?

A.
The index on Id is deleted.

B.
The index on Id is updated as an index on Id_Code.

C.
The index on Id is deleted and an index on Id_Code is created.

D.
The index on Id is recreated as an index on Id_Code.

A

Item 60 of 63 Mark item for review

Given the data set SASHELP.CLASS:

Name	Age
Mary	15
Philip	16
Robert	12
Ronald	15

The following SAS program is submitted:

```
%macro MP_ONE(pname=means);
   proc &pname data=SASHELP.CLASS;
   run;
```

```
%mend;
%MP_ONE(print)
%MP_ONE()
```

Which PROC steps execute successfully?

A.
PROC MEANS only

B.
PROC PRINT only

C.
PROC MEANS and PROC PRINT

D.
No PROC steps execute successfully

A

Item 61 of 63 Mark item for review

In a data step merge, the BY variables in all data sets must have the same:

A.
name.

B.
name and type.

C.
name and length.

D.
name, type, and length.

B

Item 62 of 63 Mark item for review

Given the following macro program and invocation:

```
%macro MAKEPGM(NEWNAME, SETNAME);
   data &NEWNAME;
      set &SETNAME;
   run;
   %put ---> inside macro &NEWNAME &SETNAME;
%mend;

%MAKEPGM(WORK.NEW, SASHELP.CLASS)
%put ---> outside macro &NEWNAME &SETNAME;
```

Which of these choices shows the correct %PUT statement output if the program is submitted at the beginning of a new SAS session? Note that other lines may be written to the SAS log by the program but only the %PUT output is shown here.

A.
```
 ---> inside macro WORK.NEW SASHELP.CLASS
---> outside invocation WORK.NEW SASHELP.CLASS
```

B.
```
 ---> inside macro WORK.NEW SASHELP.CLASS
---> outside invocation &NEWNAME &SETNAME
```

C.
```
 ---> inside macro &NEWNAME &SETNAME
---> outside invocation WORK.NEW SASHELP.CLASS
```

D.
```
 ---> inside macro &NEWNAME &SETNAME
---> outside invocation &NEWNAME &SETNAME
```

B

Item 63 of 63 Mark item for review

The following SAS program is submitted:

```
%macro COLS1;
   Name Age;
%mend;
%macro COLS2;
   Height Weight;
%mend;
proc print data=SASHELP.CLASS;
   [_insert_VAR_statement_here_]
run;
```

Which VAR statement successfully completes the program to produce a report containing four variables?

A.
```
var %COLS1 %COLS2;
```

B.
```
var %COLS1-%COLS2;
```

C.
```
var %COLS1 Weight Height;
```

D.
```
var Weight Height %COLS1;
```

D