(A00-202) SAS Advanced Programming Exam Study Guide

A00-202

Question: 1
Which of the following statement(s) in the DATASETS procedure alters the name of a SAS data set stored in a SAS data library?

A. RENAME statement only
B. CHANGE statement only
C. MODIFY and RENAME statements
D. MODIFY and CHANGE statements

Answer: B

Question: 2
The following SAS program is submitted: <insert statement here>; %let development = ontime; proc print data = sasuser.highway; title "For &dept"; title2 "This project was completed &development"; run; Which one of the following statements completes the above and resolves title1 to "For research&development"?

A. %let dept = %str(research&development);
B. %let dept = %str(research%&development);
C. %let dept = %nrstr(research&development);
D. %let dept = %nrstr(research%&development);

Answer: C

Question: 3
Which one of the following options controls the pagesize of a SAS data set?

A. SIZE=
B. BUFNO=
C. BUFSIZE=
D. PAGESIZE=

Answer: C

Question: 4
Given the following SAS data set ONE: ONE REP COST _____ SMITH 200
SMITH 400
JONES 100
SMITH 600
JONES 100
JONES 200
JONES 400
SMITH 800
JONES 100
JONES 300
The following SAS program is submitted: proc sql;

select rep, avg(cost) as AVERAGE from one group by rep having avg(cost) > (select avg(cost) from one);
quit;
Which one of the following reports is generated?

A. REP AVERAGE _____ JONES 200
B. REP AVERAGE _____ JONES 320
C. REP AVERAGE _____ SMITH 320
D. REP AVERAGE _____ SMITH 500

Answer: D

Question: 5
The following SAS program is submitted:
proc sort data = sales tagsort;
by month year; run;
Which of the following resource(s) is the TAGSORT option reducing?

A. I/O usage only
B. CPU usage only
C. I/O and CPU usage
D. temporary disk usage

Answer: D

Question: 6
The following SAS program is submitted:
data one;
do i = 1 to 10;
ptobs = ceil(ranuni(0) * totobs);
set temp point = ptobs nobs = totobs;
output;
end;
stop;
run;
The SAS data set TEMP contains 2,500,000 observations. Which one of the following represents the possible values for PTOBS?

A. any integer between 1 and 10
B. any real number between 0 and 1
C. any integer between 1 and 2,500,000
D. any real number between 1 and 2,500,000

Answer: C

Question: 7

Which one of the following programs contains a syntax error?

A. proc sql;
select product.*, cost.unitcost, sales.quantity
from product p, cost c, sales s
where p.item = c.item and p.item = s.item;
quit;
B. proc sql;
select product.*, cost.unitcost, sales.quantity
from product, cost,
sales where product.item = cost.item and product.item = sales.item;
quit;
C. proc sql;
select p.*, c.unitcost, s.quantity
from product as p, cost as c, sales as s
where p.item = c.item and p.item = s.item;
quit;
D. proc sql;
select p.*, c.unitcost, s.quantity
from product, cost, sales
where product.item = cost.item and product.item = sales.item;
quit;

Answer: D

Question: 8
The following SAS code is submitted:
%macro houses(dsn = houses,sub = RANCH);
data &dsn;
set sasuser.houses; if style = "&sub";
run;
%mend;
%houses(sub = SPLIT)
%houses(dsn = ranch)
%houses(sub = TWOSTORY)
Which one of the following is the value of the automatic macro variable SYSLAST?

A. work.ranch
B. work.houses
C. WORK.RANCH
D. WORK.HOUSES

Answer: D

Question: 9
Given the following SAS data sets ONE and TWO:

ONE TWO
NUM COUNTRY NUM CITY

1 CANADA 3 BERLIN
2 FRANCE 5 TOKYO
3 GERMANY
4 BELGIUM
5 JAPAN
The following SAS program is submitted:
proc sql;
select country from one
where not exists (select * from two where one.num = two.num);
quit;
Which one of the following reports is generated?

A. COUNTRY ---------- GERMANY JAPAN
B. COUNTRY ---------- FRANCE BELGIUM
C. COUNTRY ---------- CANADA FRANCE BELGIUM
D. COUNTRY ---------- CANADA FRANCE GERMANY

Answer: C

Question: 10
Which one of the following statements is true?

A. The WHERE statement can be executed conditionally as part of an IF statement.
B. The WHERE statement selects observations before they are brought into the PDV.
C. The subsetting IF statement works on observations before they are read into the PDV.
D. The WHERE and subsetting IF statements can be used interchangeably in all SAS programs.

Answer: B

Question: 11
The variable attributes of SAS data sets ONE and TWO are shown below:
ONE TWO
Variable Type Len Pos # Variable Type Len Pos
2 sales Num 8 8 2 budget Num 8 8
1 year Num 8 0 3 sales Char 8 16
1 year Num 8 0
Data set ONE contains 100 observations. Data set TWO contains 50 observations. Both data sets are sorted by the variable YEAR. The following SAS program is submitted: data three;
merge one two;
by year;

run;
Which one of the following is the result of the program execution?

A. No messages are written to the SAS log.
B. ERROR and WARNING messages are written to the SAS log.
C. Data set THREE is created with two variables and 50 observations.
D. Data set THREE is created with three variables and 100 observations.

Answer: B

Question: 12
Given the following SAS statement:
%let idcode = Prod567;
Which one of the following statements stores the value 567 in the macro variable CODENUM?

A. %let codenum = substr(&idcode,length(&idcode)-2);
B. %let codenum = substr(&idcode,length(&idcode)-3);
C. %let codenum = %substr(&idcode,%length(&idcode)-2);
D. %let codenum = %substr(&idcode,%length(&idcode)-3);

Answer: C

Question: 13
The following SAS program is submitted:
data new (bufsize = 6144 bufno = 4);
set old;
run;
Which one of the following describes the difference between the usage of BUFSIZE= and BUFNO= options?

A. BUFSIZE= specifies the size of the input buffer in bytes; BUFNO= specifies the number of input buffers.
B. BUFSIZE= specifies the size of the output buffer in bytes; BUFNO= specifies the number of output buffers.
C. BUFSIZE= specifies the size of the output buffer in kilobytes; BUFNO= specifies the number of input buffers.
D. BUFSIZE= specifies the size of the output buffer in kilobytes; BUFNO= specifies the number of output buffers.

Answer: B

Question: 14
Consider the following SAS log:
229 data sasuser.ranch sasuser.condo / view = sasuser.ranch;

230 set sasuser.houses;
231 if style = 'RANCH' then output sasuser.ranch;
232 else if style = 'CONDO' then output sasuser.condo;
233 run; NOTE:
DATA STEP view saved on file SASUSER.RANCH. NOTE:
A stored DATA STEP view cannot run under a different operating system. 234 235 proc print data = sasuser.condo;
ERROR:
File SASUSER.CONDO.DATA does not exist. 236 run;
NOTE: The SAS System stopped processing this step because of errors.

Which one of the following explains why the PRINT procedure fails?
A. SASUSER.CONDO is a stored DATA step program.
B. A SAS data file and SAS data view cannot be created in the same DATA step.
C. A second VIEW=SASUSER.CONDO option was omitted on the DATA statement.
D. The view SASUSER.RANCH must be processed before SASUSER.CONDO is created.

Answer: D

Question: 15
Which one of the following is an advantage of creating and using a SAS DATA step view?

A. It can store an index.
B. It always accesses the most current data.
C. It works quickly through multiple passes of the data.
D. It is useful when the underlying data file structure changes.

Answer: B

Question: 16 Given the following SAS data sets ONE and TWO:
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500 2001 4 300
2001 4 400 2002 1 600
2002 1 700
The following SAS program is submitted:
proc sql;
select one.*, sales from one, two;
quit;
Which one of the following reports is generated?

A. YEAR QTR BUDGET SALES

2001 4 400 300

2002 1 700 600
B. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600
C. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 600 D.
YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 300
2001 3 500 600
2001 4 400 600
2002 1 700 600

Answer: D

Question: 17 Given the following SAS data set ONE:
ONE NUM VAR
---
1 A
2 B
3 C
Which one of the following SQL programs deletes the SAS data set ONE?

A. proc sql;
delete table one;
quit;
B. proc sql;
alter table one
drop num, var;
quit;
C. proc sql;
drop table one;
quit;
D. proc sql;
delete from one;
quit;

Answer: C

Question: 18
Given the following SAS data sets ONE and TWO:
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500
2001 4 300
2001 4 400
2002 1 600]
2002 1 700
The following SAS program is submitted:
proc sql;
select one.*, sales from one, two where one.year = two.year;
quit;
Which one of the following reports is generated?
A. YEAR QTR BUDGET SALES

2001 4 400 300
2002 1 700 600
B. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600

C. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 600
D. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 300
2001 3 500 600
2001 4 400 600
2002 1 700 600

Answer: C

Question: 19
The SAS data set TEMP has the following distribution of values for variable A:
A Frequency
1 500,000
2 500,000
6 7,000,000

8 3,000
Which one of the following SAS programs requires the least CPU time to be processed?

```
A. data new; set temp;
 if a = 8 then b = 'Small ';
 else if a in(1, 2) then
b = 'Medium';
 else if a = 6 then
b = 'Large'; run;
B. data new;
set temp;
if a in (1, 2) then
b = 'Medium';
 else if a = 8 then
 b = 'Small';
else if a = 6 then
 b = 'Large'; run;
C. data new;
 set temp;
if a = 6 then b = 'Large ';
 else if a in (1, 2) then
 b = 'Medium';
else if a = 8 then
b = 'Small';
D. data new;
 set temp;
if a = 6 then
 b = 'Large ';
  if a in (1, 2) then
b = 'Small';
 run;
```

Answer: C

Question: 20
The following SAS program is submitted:

```
 %let value = 9;
 %let value2 = 5;
 %let newval =
%eval(&value / &value2);
```

Which one of the following is the resulting value of the macro variable NEWVAL?

A. 1
B. 2
C. 1.8

D. null

Answer: A

Question: 21
The following SAS program is submitted:

```
%let lib = %upcase(sasuser);
proc sql;
 select nvar from
dictionary.tables
 where libname = "&lib";
 quit;
```

Given that several SAS data sets exist in the SASUSER library, which one of the following is generated as output?

A. no result set
B. a syntax error in the log
C. a report showing the names of each table in SASUSER
D. a report showing the number of columns in each table in SASUSER

Answer: D

Question: 22
Given the following SAS data set ONE:

```
ONE GROUP SUM
------------------------
A 765
B 123
C 564
```

The following SAS program is submitted:

```
data _null_;
set one; call symput(group,sum);
 run;
```

Which one of the following is the result when the program finishes execution?

A. Macro variable C has a value of 564.
B. Macro variable C has a value of 1452.
C. Macro variable GROUP has a value of 564.
D. Macro variable GROUP has a value of 1452.

Answer: A

Question: 23
The SAS data set ONE
consists of five million observations and has 25 variables.

Which one of the following SAS programs successfully creates three new variables TOTREV, TOTCOST, and PROFIT and requires the least CPU time to be processed?

A. data two;
set one;
totrev = sum(price * quantity);
totcost = sum(fixed,variable);
profit = sum(totrev,otcost); if totrev > 1000; run;
B. data two;
set one;
totrev = sum(price * quantity);
if totrev > 1000;
totcost = sum(fixed,variable);
profit = sum(totrev,otcost); run;
C. data two;
set one; totrev = sum(price * quantity);
where totrev > 1000;
totcost = sum(fixed,variable);
profit = sum(totrev,otcost); run;
D. data two;
set one; where totrev > 1000;
totrev = sum(price * quantity);
totcost = sum(fixed,variable);
profit = sum(totrev,otcost); run;

Answer: B

Question: 24
Given the following SAS data set ONE:
ONE COUNTRY CITY VISIT

USA BOSTON 10
UK LONDON 5
USA DALLAS 10
UK MARLOW 10 USA BOSTON 20
UK LONDON 15
USA DALLAS 10
The following SAS program is submitted:
proc sql;

select country, city, sum(visit) as TOTAL
from one group by country, city order by country, total desc;
quit;
Which one of the following reports is generated?
A. COUNTRY CITY TOTAL

UK MARLOW 10
UK LONDON 20
USA BOSTON 50
USA DALLAS 20
B. COUNTRY CITY TOTAL

UK LONDON 20
UK MARLOW 10
USA BOSTON 50
USA DALLAS 20
C. COUNTRY CITY TOTAL

USA BOSTON 50
D. COUNTRY CITY TOTAL

UK MARLOW 10
UK LONDON 20
USA DALLAS 20
USA BOSTON 50

Answer: B

Question: 25
Given the following SAS data sets ONE and TWO:
ONE TWO NUM CHAR1 NUM CHAR2
---
1 A 2 X
2 B 3 Y
4 D 5 V
The following SAS program is submitted creating the output table THREE:
data three;
set one two;
run;
THREE NUM CHAR1 CHAR2
---
1 A 2 B
4 D 2 X
3 Y 5 V
Which one of the following SQL programs creates an equivalent SAS data set THREE?

A. proc sql; create table three as

select *
from one outer union corr
select *
from two;

```
 quit;
B. proc sql;
create table three as
select *
 from one outer union
select *
 from two;
quit;

C. proc sql;
create table three as
select *
from one outer union
 select *
quit;
D. proc sql;
 create table three as
 select *
 from one union corr
select *
from two;
quit;
```

Answer: A

Question: 26
Which one of the following automatic SAS macro variables contains the return code from a previously executed step?

A. &RC
B. &ERR
C. &SYSRC
D. &SYSERR

Answer: D

Question: 27
The SAS data set ONE has a variable X on which an index has been created. The data sets ONE and THREE are sorted by X. Which one of the following SAS programs uses the index to select observations from the data set ONE?

```
 A. data two;
  set three;
  set one key = X;
  run;
 B. data two;
 set three key = X;
```

```
set one;

 run;
C. data two;
set one;
 set three key = X;
 run;
D. data two;
 set three;
set one (key = X);
 run;
```

Answer: A

Question: 28
Given the following SAS data set ONE:

```
ONE REP AREA COST
 ------------------------------------
SMITH NORTH 100
 SMITH SOUTH 200
 JONES EAST 100
SMITH NORTH 300
 JONES WEST 100
 JONES NORTH 200
 JONES NORTH 400
SMITH NORTH 400
JONES WEST 100
JONES WEST 300
```

The following SAS program is submitted:

```
proc sql;
 select rep, area, count(*) as TOTAL from one group by rep, area; quit;
```

Which one of the following reports is generated?

```
 A. REP AREA COUNT
 --------------------------------
  JONES EAST 100
  JONES NORTH 600
  JONES WEST 500
  SMITH NORTH 800
  SMITH SOUTH 200
 B. REP AREA TOTAL
  ---------------------------------
 JONES EAST 100
  JONES NORTH 600
 JONES WEST 500
 SMITH NORTH 800
```

SMITH SOUTH 200
C. REP AREA TOTAL

JONES EAST 1
JONES NORTH 2
JONES WEST 3
SMITH NORTH 3
JONES WEST 3

SMITH NORTH 3
SMITH SOUTH 1
D. REP AREA TOTAL

JONES EAST 1
JONES NORTH 2
JONES WEST 3
SMITH NORTH 3
SMITH SOUTH 1
SMITH NORTH 3
SMITH SOUTH 1

Answer: C, D

Question: 29
Which one of the following SAS procedures changes a permanent format of a variable stored in a SAS data set?
A. MODIFY
B. FORMAT
C. CONTENTS
D. DATASETS

Answer: D

Question: 30
Given the following SAS data set SASUSER.HIGHWAY:
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;
proc sql noprint;
select count(distinct status) into :

```
numgrp from sasuser.highway;
 %let numgrp = &numgrp;
 select distinct status into :
group1-:group&numgrp from sasuser.highway;
quit;
 %do i = 1 %to &numgrp;
 proc print data = sasuser.highway;
 where status = "&&group&i" ;
 run;
 %end;
%mend;
 %highway
```

How many reports are produced by the above program?

A. 0
B. 1
C. 2
D. 5

Answer: C

Question: 31
Text is sent to the SAS compiler as a result of macro execution. Which one of the following SAS System options writes that text to the log?

A. MPRINT
B. MLOGIC
C. MSOURCE
D. SOURCE2

Answer: A

Question: 32
Given the following SAS data set ONE:

```
ONE CATEGORY AGE SALARY BONUS
-------------------------------------------------
M 28 200 .
 M 25 100 10
F 18 100 50
F 25 200 10
```

The following SAS program is submitted:

```
proc sql;
 create table two as
 select category, salary + bonus as EARNINGS
from one;

 quit;
```

Which one of the following represents the data values stored in the data set TWO?
A. CATEGORY EARNINGS

M 200
M 110
F 150 F 210
B. CATEGORY EARNINGS

M .
M 110
F 150
F 210
C. CATEGORY SALARY BONUS EARNINGS

M 200 . 200
M 100 10 110
F 100 50 150
F 200 10 210
D. CATEGORY SALARY BONUS EARNINGS

M 200 . .
M 100 10 110
M 200 . 200
M 100 10 110
F 100 50 150
F 200 10 210

Answer: B

Question: 33
Which one of the following SAS SORT procedure options eliminates identical consecutive observations?

A. NODUP
B. UNIQUE
C. DISTINCT
D. NODUPKEY

Answer: A

Question: 34
The following SAS program is submitted:
data temp;
array points{3,2}_temporary_ (10,20,30,40,50,60);
score = points{2,1} run;
Which one of the following is the value of the variable SCORE in the data set TEMP?

A. 10
B. 20
C. 30
D. 40

Answer: C

Question: 35
The following SAS FORMAT procedure is submitted:
proc format lib = sasuser;
value tempc low < 0 = 'BELOW FREEZING'
0 < 5 = 'COLD'
5 < 10 = 'MILD'
10 < 15 = 'WARM' 15 high = 'HOT';
run;
How is the value 10 displayed when the format TEMPC is applied?

A. 10
B. MILD
C. WARM
D. BELOW FREEZING

Answer: C

Question: 36
Which one of the following SAS programs uses the most amount of memory resources for output buffers?
A. data new(bufsize = 1000 bufno = 5);
set temp;
run;
B. data new(bufsize = 1000 bufno = 2);
set temp; run;
C. data new(bufsize = 2000 bufno = 3);
set temp; run;
D. data new(bufsize = 4000 bufno = 1);
set temp; run;

Answer: C

Question: 37
Given the following SAS data sets ONE and TWO:
ONE TWO NUM CHAR1 NUM CHAR2
---------- ----------
1 A1 2 X1
1 A2 2 X2

2 B1 3 Y 2
B2 5 V 4 D
The following SAS program is submitted creating the output table THREE:
proc sql;
create table three as select one.num, char1, char2 from one, two where one.num = two.num;
quit;
THREE NUM CHAR1 CHAR2
---
2 B1 X1
2 B1 X2
2 B2 X1
2 B2 X2
Which one of the following DATA step programs creates an equivalent SAS data set THREE?

A. data three;
merge one two;
by num;
run;
B. data three;
set one;
set two;
by num;
run;
merge one two;
by num;
run;
C. data three;
set one;
set two;
by num;
run;
by num;
run;
D. data three;
set one;
do i = 1 to numobs;
set two(rename = (num = num2)) point = i nobs = numobs;
if num2 = num then output;
end;
drop num2;
run;

Answer: D

Question: 38
The following SAS program is submitted:
%macro execute;
<insert statement here> proc print data = sasuser.houses;
run;
%end;
%mend;
Which of the following completes the above program so that it executes on Tuesday?

A. %if &sysday = Tuesday %then %do;
B. %if &sysday = 'Tuesday' %then %do;
C. %if "&sysday" = Tuesday %then %do;
D. %if '&sysday' = 'Tuesday' %then %do;

Answer: A

Question: 39
Which one of the following statements is true regarding a SAS DATA step view?

A. It allows write capabilities.
B. It contains global statements.
C. It contains data and a descriptor portion.
D. It contains a partially compiled DATA step.

Answer: D

Question: 40
Given the following SAS data sets ONE and TWO:
ONE TWO OBS COMMON X OBS COMMON Y
--- ---
1 A 10 1 A 1
2 A 13 2 A 3
3 A 14 3 B 4
4 B 9 4 B 2
5 C 8 5 C 5
6 C 14
The following SAS DATA step is submitted:
data combine;
merge one two;
by common;
run;
Which one of the following represents the data values stored in data set COMBINE?
A. OBS COMMON X Y
---

1 A 10 1
2 A 13 3
3 A 14 3
4 B 9 4
5 B 9 2
6 C 8 5
7 C 14 5
B. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 9 4
4 C 8 5 C.
OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 14 4
4 B 9 2
5 C 8 5
D. OBS COMMON X Y
---
1 A 10 1
2 A 13 1
3 A 14 1
4 A 10 3
5 A 13 3
6 A 14 3
7 B 9 4
8 B 9 2 9
C 8 5 10
C 14 5

Answer: A

Question: 41
Assume today is Tuesday, July 23, 2002. Which one of the following statements submitted at the beginning of a SAS session assigns the value Tuesday, July 23, 2002 to the macro variable START?

A. %let start = today(),weekdate.;
B. %let start = today(),format=weekdate.;
C. %let start = %sysfunc(today(),weekdate.);
D. %let start = %sysfunc(%today(),weekdate.);

Answer: C

Question: 42
The following SAS program is submitted:
%macro test(var);
%let jobs = BLACKSMITH WORDSMITH SWORDSMITH;
%let type = %index(&jobs,&var);
%mend;
%test(SMITH)
Which one of the following is the resulting value of the macro variable TYPE?
A. 0
B. 3
C. 6
D. null

Answer: C

Question: 43
Which one of the following SAS integrity constraint types ensures that a specific set or range of values are the only values in a variable?

A. CHECK
B. UNIQUE
C. FORMAT
D. DISTINCT

Answer: A

Question: 44
Which one of the following options displays the value of a macro variable in the SAS log?

A. MACRO
B. SOURCE
C. SOURCE2
D. SYMBOLGEN

Answer: D

Question: 45
The following SAS ARRAY statement is submitted:
array score{*} a4 - a10, a25 ; Which one of the following is the maximum number of elements stored?
A. 3
B. 7
C. 8
D. 11

Answer: C

Question: 46
When is it appropriate to create indexes on a SAS data set for efficient processing?

A. if small subsets of data are often retrieved
B. if the key variable has very few unique values
C. if the data are often used for BY group processing
D. if the SAS data set file page count is less than three pages

Answer: A

Question: 47
The following SAS program is submitted:

```
options yearcutoff = 1950;
 %macro y2kopt(date);
 %if &date >= 14610 %then %do;
 options yearcutoff = 2000;
 %end;
 %else %do;
options yearcutoff = 1900;
 %end;
 %mend;
data _null_ ;
date = "01jan2000"d;
call symput("date",left(date));
run;
 %y2kopt(&date)
```

The SAS date for January 1, 2000 is 14610 and the SAS system option for YEARCUTOFF is set to 1920 prior to submitting the above program. Which one of the following is the value of YEARCUTOFF when the macro finishes execution?

A. 1900
B. 1920
C. 1950
D. 2000

Answer: D

Question: 48
Which one of the following is the purpose of the REUSE= YES option in a compressed SAS data set?
A. It temporarily compresses observations in a SAS data set.
B. It allows users to update the same SAS data set concurrently.
C. It allows new observations to be inserted wherever enough free space exists.

D. It specifies that a new empty data set with a given name replaces an existing data set with the same name.

Answer: C

Question: 49
Given the following SAS data set ONE:
ONE LEVEL AGE
---
1 10
2 20
3 20
2 10
1 10
2 30
3 10
2 20
3 30
1 10
The following SAS program is submitted:
proc sql;
select level,
max(age) as MAX from one group by level having max(age) >
(select avg(age) from one);
quit;
Which one of the following reports is generated?

A. LEVEL AGE
---
2 20 3 20
B. LEVEL AGE
---
2 30 3 30
C. LEVEL MAX
---
2 20 3 30 D.
LEVEL MAX
---
2 30 3 30
Answer: D

Question: 50
Which one of the following is true regarding the KEEP statement?

A. The KEEP statement is available in both the DATA and the PROC steps
. B. The KEEP statement selects the variables read from the input data set(s).

C. The KEEP statement applies to all data sets created within the same DATA step.
D. The KEEP statement applies only to the first data set created within the same DATA step if more than one data set is created.

Answer: C

Question: 51
Which one of the following displays the definition of a stored SQL procedure view in the SAS log?

A. ECHOVIEW option
B. EXPANDVIEW option
C. VALIDATE VIEW statement
D. DESCRIBE VIEW statement

Answer: D

Question: 52
The following SAS program is submitted:

```
data temp;
 array points{2,3}_temporary_;
run;
```

Which one of the following is the maximum number of elements that are stored?

A. 2
B. 3
C. 5
D. 6

Answer: D

Question: 53
Which one of the following is the purpose of the IDXNAME= data set option?

A. It instructs SAS to name and store a specific index.
B. It instructs SAS to store an index in a particular location.
C. It instructs SAS to use a specific index for WHERE processing.
D. It instructs SAS to use any available index for WHERE processing.

Answer: C

Question: 54
The DICTIONARY.MACROS table stores information about which of the following?

A. user defined macro variables only
B. system defined macro variables only
C. both user and system defined macro variables
D. macros stored in the autocall macro library only

Answer: C

Question: 55
Given the following SAS data set named WORK.INTERNAT:
WORK.INTERNAT LOCATION SUM

USA 30 EUR 40
The following SAS program is submitted:

```
%let LOC = Usa;
proc sql;
select *
 from internat where location = "&Loc";
quit;
```

Which one of the following is the result when the above code is executed on the above data set?

A. A report is generated with one destination.
B. No report is generated as the case of the compared values is different.
C. No report is generated as the case of the macro variable name is different.
D. A report is generated with the two original observations as the where clause does not work.

Answer: B

Question: 56
The following SAS program is submitted:

```
%let a = cat;
%macro animal(a = frog);
 %let a = bird;
%mend;
%animal(a = pig) %put a is &a;
```

Which one of the following is written to the SAS log?

A. a is &a
B. a is cat
C. a is pig
D. a is bird

Answer: B

Question: 57
The following SAS program is submitted:

```
proc sql;
select *
from dictionary.tables;
quit;
```

Which one of the following is reported?

A. metadata on all tables in all libraries
B. metadata on all tables in the WORK library only
C. metadata on all tables in the SASUSER library only
D. metadata on all tables in the DICTIONARY library only

Answer: A

Question: 58
The following SAS program is submitted:

```
data two;
y = '2';
run;
%let x = 10;
%let var = y;
data one;
set two (keep = &var);
z = &var * &x; run;
```

Which one of the following is the value of the variable Z when the program finishes execution?

A. _ERROR_
B. 20 (as a numeric)
C. 20 (as a character)
D. . (missing numeric)

Answer: B

Question: 59
Which one of the following options is available for SAS macro debugging?

A. MLOGIC
B. MDEBUG
C. MSGLEVEL
D. MAUTOSOURCE

Answer: A

Question: 60
The following SAS program is submitted:
%let first = yourname;
%let last = first;
%put &&&last;
Which one of the following is the result in the log of the %PUT statement?

A. first
B. &first
C. yourname
D. &yourname

Answer: C

Question: 61
Given the following SAS data sets ONE and TWO:
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500
2001 4 300
2001 4 400
2002 1 600
2002 1 700
The following SAS program is submitted: proc sql;
select one.*, sales
from one left join two on one.year = two.year; quit;
Which one of the following reports is generated?
A. YEAR QTR BUDGET SALES

2001 3 500 .
B. YEAR QTR BUDGET SALES

2001 4 400 300
2002 1 700 600
C. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600
D. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 600

Answer: D

Question: 62
Given the following SAS data sets ONE and TWO:

proc sql;
ONE TWO OBS COMMON X OBS COMMON Y
---------- ----------
1 A 10 1 A 1
2 A 13 2 A 3
3 A 14 3 B 4
4 B 9 4 B 2 5
C 8 5 C 5 6 C 14
The following SAS DATA step is submitted:
data combine;
set one;
set two;
run;
Which one of the following represents the data values stored in data set COMBINE?
A. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 A 14 3
4 B 9 4
5 B 9 2
6 C 8 5
7 C 14 5
B. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 9 4
4 C 8 5
C. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 14 4
4 B 9 2
5 C 8 5
D. OBS COMMON X Y
---
1 A 10 1
2 A 13 1
3 A 14 1
4 A 10 3

5 A 13 3
6 A 14 3
7 B 9 4
8 B 9 2
9 C 8 5
10 C 14 5

Answer: C

Question: 63
Given the following SAS program:
proc sql;
select product, type, sum(sales) as revenue
from one
group by product, type; quit;
Which one of the following clauses should be added to the program to sort the output by PRODUCT and decreasing REVENUE?

A. order by 1, 3
B. order by 1, 3 desc
C. orderby product, revenue desc
D. order by product, desc revenue

Answer: B

Question: 64
The following SAS program is submitted:
%macro test(var);
proc print data = sasuser.class; where age > &var;
run;
%mend;
Which type of parameter is the macro variable VAR?

A. default
B. keyword
C. positional
D. command

Answer: C

Question: 65
The following SAS program is submitted:
proc datasets lib = testdata;
modify one;
label num = 'Number';
format num 4.;

quit;
Which one of the following SQL programs produces the same results as the above DATASETS procedure?

A. proc sql;
modify table testdata.one num format = 4. label = 'Number';
quit;
B. proc sql;
alter table testdata.one modify num format = 4. label = 'Number';
quit;
C. proc sql;
modify table testdata.one alter num format = 4. label = 'Number';
quit;
D. proc sql;
alter table testdata.one modify num (format = 4. label = 'Number');
quit;

Answer: B

Question: 66
Which one of the following SAS integrity constraint types ensures that a specific set or range of values are the only values in a variable?

A. CHECK
B. UNIQUE
C. FORMAT
D. DISTINCT

Answer: A

Question: 67
Which one of the following automatic SAS macro variables contains the return code from a previously executed step?

A. &RC
B. &ERR
C. &SYSRC
D. &SYSERR

Answer: D

Question: 68
Which one of the following statements is true?

A. The WHERE statement can be executed conditionally as part of an IF statement.
B. The WHERE statement selects observations before they are brought into the PDV.

C. The subsetting IF statement works on observations before they are read into the PDV.

D. The WHERE and subsetting IF statements can be used interchangeably in all SAS programs.

Answer: B

Question: 69
Which one of the following should be avoided when creating and using an SQL procedure view?

A. using a HAVING clause
B. using summary functions
C. referencing a view multiple times in the same program
D. creating views on tables whose structures remain constant

Answer: C

Question: 70
Given the following SAS data sets ONE and TWO:

```
ONE TWO NUM COUNTRY NUM CITY
---------- ----------
1 CANADA 3 BERLIN
 2 FRANCE 5 TOKYO
3 GERMANY
4 BELGIUM
5 JAPAN
```

The following SAS program is submitted:

```
proc sql;
 select country
from one
 where not exists (select * from two where one.num = two.num);
 quit;
```

Which one of the following reports is generated?

```
A. COUNTRY
 ----------
 GERMANY
  JAPAN
 B. COUNTRY
  ----------
 FRANCE
  BELGIUM
 C. COUNTRY
  ----------
```

CANADA
FRANCE
BELGIUM
D. COUNTRY

CANADA
FRANCE
GERMANY

Answer: C

Question: 71
Text is sent to the SAS compiler as a result of macro execution. Which one of the following SAS system options writes that text to the log?

A. MPRINT
B. MLOGIC
C. MSOURCE
D. SOURCE2

Answer: A

Question: 72
Given the following SAS data set ONE:
ONE JOB LEVEL SALARY

ACC 2 300
SEC 1 100
SEC 2 200
MGR 3 700
ACC 1 .
ACC 3 .
MGR 2 400

The following SAS data set TWO is created:
TWO JOB LEVEL BONUS

ACC 2 30
MGR 3 70
MGR 2 40
Which one of the following SAS programs creates data set TWO?

A. proc sql;
create table two as
select job, level, salary * 0.1 as bonus
from one where bonus > 20;

```
quit;
B. proc sql;
create table two as
 select job, level, salary * 0.1 as bonus
 from one where salary > 20;
 quit;
C. proc sql;
create table two as
 select job, level, salary * 0.1 as bonus
from one where calculated salary * 0.1 > 20;
 quit;
 D. proc sql;D.proc sql;
 create table two as
select job, level, salary * 0.1 as bonus
 from one where calculated bonus > 20;
quit;
```

Answer: D

Question: 73
Which one of the following options is available for SAS macro debugging?

A. MLOGIC
B. MDEBUG
C. MSGLEVEL
D. MAUTOSOURCE

Answer: A

Question: 74
The following are values of the variable STYLE from the SAS data set SASUSER.HOUSES:

```
 SASUSERS.HOUSES OBS STYLE
 --------------------
1 RANCH
2 SPLIT
3 CONDO
 4 TWOSTORY
5 RANCH
6 SPLIT
7 SPLIT
```

The following SAS program is submitted:

```
proc sql noprint;
 select distinct style
 into :styles separated by ' '
```

from sasuser.houses order by style;
quit;
Which one of the following is the value of the resulting macro variable?

A. CONDO RANCH SPLIT TWOSTORY
B. RANCH SPLIT CONDO TWOSTORY
C. CONDO RANCH RANCH SPLIT SPLIT SPLIT TWOSTORY
D. RANCH SPLIT CONDO TWOSTORY RANCH SPLIT SPLIT

Answer: A

Question: 75
The following SAS program is submitted:
%let value = .5;
%let add = 5;
%let newval = %eval(&value + &add);
Which one of the following is the resulting value of the macro variable NEWVAL?

A. 5
B. 5.5
C. .5 + 5
D. null

Answer: D

Question: 76
The following SAS program is submitted: proc sql;
select *
from dictionary.tables;
quit;
Which one of the following is reported?

A. metadata on all tables in all libraries
B. metadata on all tables in the WORK library only
C. metadata on all tables in the SASUSER library only
D. metadata on all tables in the DICTIONARY library only

Answer: A

Question: 77
Which one of the following is true regarding the KEEP statement?

A. The KEEP statement is available in both the DATA and the PROC steps
B. The KEEP statement selects the variables read from the input data set(s).

C. The KEEP statement applies to all data sets created within the same DATA step.
D. The KEEP statement applies only to the first data set created within the same DATA step if more than one data set is created.

Answer: C

Question: 78
The following SAS program is submitted:

```
%let lib = %upcase(sasuser);
proc sql;
select nvar
from dictionary.tables
where libname = "&lib";
quit;
```

Given that several SAS data sets exist in the SASUSER library, which one of the following is generated as output?

A. no result set
B. a syntax error in the log
C. a report showing the names of each table in SASUSER
D. a report showing the number of columns in each table in SASUSER

Answer: D

Question: 79
Which one of the following SAS programs displays the descriptor portion of each data set stored in the SASUSER library?

```
A. proc datasets lib = sasuser.all;
   quit;
B. proc datasets lib = sasuser._all_;
   quit;
C. proc datasets lib = sasuser;    contents data = all;
   quit;
D. proc datasets lib = sasuser;    contents data = _all_;
quit;
```

Answer: D

Question: 80
The following SAS program is submitted:

```
%macro test(var);
proc print data = sasuser.class; where age > &var;
run;
%mend;
```

Which type of parameter is the macro variable VAR?

A. default
B. keyword
C. positional
D. command

Answer: C

Question: 81
Given the following SAS data sets ONE and TWO:
ONE TWO OBS COMMON X OBS COMMON Y
---------- ----------
1 A 10 1 A 1
2 A 13 2 A 3
3 A 14 3 B 4
4 B 9 4 B 2
5 C 8 5 C 5
6 C 14
The following SAS DATA step is submitted:
data combine;
set one;
set two;
run;
Which one of the following represents the data values stored in data set COMBINE?

A. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 A 14 3
4 B 9 4
5 B 9 2
6 C 8 5
7 C 14 5
B. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 9 4
4 C 8 5
C. OBS COMMON X Y
---
1 A 10 1
2 A 13 3
3 B 14 4
4 B 9 2

5 C 8 5
D. OBS COMMON X Y
---
1 A 10 1
2 A 13 1
3 A 14 1
4 A 10 3
5 A 13 3
6 A 14 3
7 B 9 4
8 B 9 2
9 C 8 5 10
C 14 5

Answer: C

Question: 82
The following SAS program is submitted:

```
options yearcutoff = 1950;
%macro y2kopt(date);
 %if &date >= 14610 %then %do;
options yearcutoff = 2000;
 %end;
 %else %do;
options yearcutoff = 1900;
 %end;
 %mend;
 data _null_ ;
date = "01jan2000"d;
 call symput("date",left(date));
 run;
```

%y2kopt(&date) The SAS date for January 1, 2000 is 14610 and the SAS system option for YEARCUTOFF is set to 1920 prior to submitting the above program. Which one of the following is the value of YEARCUTOFF when the macro finishes execution?

A. 1900
B. 1920
C. 1950
D. 2000

Answer: D

Question: 83
Which one of the following options displays the value of a macro variable in the SAS log?

A. MACRO
B. SOURCE
C. SOURCE2
D. SYMBOLGEN

Answer: D

Question: 84
The following SAS program is submitted:
%macro test(var);
%let jobs = BLACKSMITH WORDSMITH SWORDSMITH;
%let type = %index(&jobs,&var);
%mend;
%test(SMITH) Which one of the following is the resulting value of the macro variable TYPE?

A. 0
B. 3
C. 6
D. null

Answer: C

Question: 85
The following SAS program is submitted:
%macro execute;
<insert statement here> proc print data = sasuser.houses;
run;
%end;
%mend;
Which of the following completes the above program so that it executes on Tuesday?

A. %if &sysday = Tuesday %then %do;
B. %if &sysday = 'Tuesday' %then %do;
C. %if "&sysday" = Tuesday %then %do;
D. %if '&sysday' = 'Tuesday' %then %do;

Answer: A

Question: 86
The following SAS program is submitted:
data temp;
array points{2,3}_temporary_;
run;
Which one of the following is the maximum number of elements that are stored?

A. 2
B. 3
C. 5
D. 6

Answer: D

Question: 87
Given the following SAS data set ONE:
ONE REP COST

SMITH 200
SMITH 400
JONES 100
SMITH 600
JONES 100
JONES 200
JONES 400
SMITH 800
JONES 100
JONES 300
The following SAS program is submitted:
proc sql;
select rep, avg(cost) as AVERAGE
from one group by rep having avg(cost) > (select avg(cost) from one);
quit;
Which one of the following reports is generated?

A. REP AVERAGE

JONES 200
B. REP AVERAGE

JONES 320
C. REP AVERAGE

SMITH 320
D. REP AVERAGE

SMITH 500

Answer: D

Question: 88
Given the following SAS program: proc sql;
select product, type, sum(sales) as revenue

from one group by product, type;
quit;
Which one of the following clauses should be added to the program to sort the output by PRODUCT and decreasing REVENUE?

A. order by 1, 3
B. order by 1, 3 desc
C. orderby product, revenue desc
D. order by product, desc revenue

Answer: B

Question: 89
The following SAS program is submitted:
%let name = Patel's Restaurant;
Which one of the following statements avoids problems associated with the unbalanced quotation mark?

A. %let name = Patel%'s Restaurant;
B. %let name = %str(Patel's Restaurant);
C. %let name = Patel%str(')s Restaurant;
D. %let name = %str(Patel%'s Restaurant);

Answer: D

Question: 90
The following SAS program is submitted:
%let var = chicago, 1;
data a;
var = 'new york, 2';
newvar = %scan(&var,2,%str());
run;
Which one of the following explains why the program fails to execute?

A. The %STR() is invalid syntax.
B. The %SCAN function does not exist.
C. The %SCAN function has too many arguments.
D. The macro variable VAR does not get created properly.

Answer: C

Question: 91
Which one of the following is an advantage of creating and using a SAS DATA step view?

A. It can store an index.

B. It always accesses the most current data.
C. It works quickly through multiple passes of the data.
D. It is useful when the underlying data file structure changes.

Answer: B

Question: 92
The following SAS program is submitted:

```
data one;
do i = 1 to 10;
 ptobs = ceil(ranuni(0) * totobs);
 set temp point = ptobs nobs = totobs;
 output; end;
 stop;
 run;
```

The SAS data set TEMP contains 2,500,000 observations. Which one of the following represents the possible values for PTOBS?

A. any integer between 1 and 10
B. any real number between 0 and 1
C. any integer between 1 and 2,500,000
D. any real number between 1 and 2,500,000

Answer: C

Question: 93
Given the following SAS data sets ONE and TWO:

```
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500
2001 4 300
2001 4 400
2002 1 600
2002 1 700
```

The following SAS program is submitted:

```
 proc sql;
 select one.*, sales
from one, two
where one.year = two.year;
 quit;
```

Which one of the following reports is generated?

A.

```
YEAR QTR BUDGET SALES
----------
2001 4 400 300
2002 1 700 600
```

B. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600
C. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 600
D. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 300
2001 3 500 600
2001 4 400 600
2002 1 700 600

Answer: C

Question: 94
The following SAS program is submitted:
proc contents data = testdata.one;
run;
Which one of the following SQL statements produces similar information about the column attributes as the above CONTENTS procedure?

A. proc sql;
show testdata.one;
quit;
B. proc sql;
describe testdata.one;
quit;
C. proc sql;
show table testdata.one;
quit;
E. proc sql;
describe table testdata.one;
quit;

Answer: D

Question: 95
The following SAS code is submitted:
%macro houses(dsn = houses,sub = RANCH);

```
data &dsn; set sasuser.houses;
 if style = "&sub";
 run;
%mend;
```

%houses(sub = SPLIT) %houses(dsn = ranch) %houses(sub = TWOSTORY) Which one of the following is the value of the automatic macro variable SYSLAST?

A. work.ranch
B. work.houses
C. WORK.RANCH
D. WORK.HOUSES

Answer: D

Question: 96
Which one of the following programs contains a syntax error?

A.
```
proc sql;
 select product.*, cost.unitcost, sales.quantity
 from product p, cost c, sales s
where p.item = c.item and p.item = s.item; quit;
```
B.
```
proc sql;
 select product.*, cost.unitcost, sales.quantity
 from product, cost, sales
 where product.item = cost.item and product.item = sales.item;
 quit;
```
C.
```
proc sql;
 select p.*, c.unitcost, s.quantity
 from product as p, cost as c, sales as s
where p.item = c.item and p.item = s.item;
 quit;
```
D.
```
proc sql;
 select p.*, c.unitcost, s.quantity
 from product, cost, sales
 where product.item = cost.item and product.item = sales.item;
quit;
```

Answer: D

Question: 97
The following SAS program is submitted:
```
data temp;
array points{3,2}_temporary_ (10,20,30,40,50,60);
score = points{2,1} run;
```
Which one of the following is the value of the variable SCORE in the data set TEMP?

A. 10
B. 20
C. 30
D. 40

Answer: C

Question: 98
Which one of the following statements is true regarding a SAS DATA step view?

A. It allows write capabilities.
B. It contains global statements.
C. It contains data and a descriptor portion.
D. It contains a partially compiled DATA step.

Answer: D

Question: 99
Given the following SAS data sets ONE and TWO:
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500
2001 4 300
2001 4 400
2002 1 600
2002 1 700
The following SAS program is submitted:
proc sql;
select one.*, sales
from one left join two on one.year = two.year
quit;
Which one of the following reports is generated?
A. YEAR QTR BUDGET SALES
2001 3 500 .
B. YEAR QTR BUDGET SALES

2001 4 400 300
2002 1 700 600
C. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600
D. YEAR QTR BUDGET SALES

2001 3 500 300

2001 4 400 300
2002 1 700 600

Answer: D

Question: 100
Given the following SAS data set ONE:
ONE COUNTRY CITY VISIT

USA BOSTON 10
UK LONDON 5
USA DALLAS 10
UK MARLOW 10
USA BOSTON 20
UK LONDON 15
USA DALLAS 10
The following SAS program is submitted:
proc sql;
select country, city, sum(visit) as TOTAL
from one group by country, city order by country, total desc;
quit;
Which one of the following reports is generated?

A. COUNTRY CITY TOTAL

UK MARLOW 10
UK LONDON 20
USA BOSTON 50
USA DALLAS 20
B. COUNTRY CITY TOTAL

UK LONDON 20
UK MARLOW 10
USA BOSTON 50
USA DALLAS 20
C. COUNTRY CITY TOTAL

USA BOSTON 50

USA DALLAS 20
UK LONDON 20
UK MARLOW 10
D. COUNTRY CITY TOTAL

UK MARLOW 10
UK LONDON 20

USA DALLAS 20
USA BOSTON 50
Answer: B

Question: 101
The DICTIONARY.MACROS table stores information about which of the following?

A. user defined macro variables only
B. system defined macro variables only
C. both user and system defined macro variables
D. macros stored in the autocall macro library only

Answer: C

Question: 102
Given the following SAS data set ONE:
ONE DIVISION SALES

A 1234
A 3654
B 5678
The following SAS program is submitted:
```
data _null_;
 set one;
by division;
if first.division then call symput('mfirst',sales);
if last.division then call symput('mlast',sales);
run;
```
Which one of the following is the value of the macro variable MFIRST when the above program finishes execution?

A. null
B. 1234
C. 3654
D. 5678

Answer: D

Question: 103
Given the following SAS data sets ONE and TWO:
ONE TWO NUM CHAR1 NUM CHAR2
---
1 A 2 X
2 B 3 Y
4 D 5 V
The following SAS program is submitted creating the output table THREE:

```
 data three;
 set one two;
 run;
THREE NUM CHAR1 CHAR2
 1 A
2 B
 4 D
 2 X
 3 Y
5 V
```

Which one of the following SQL programs creates an equivalent SAS data set THREE?

```
 A. proc sql;
create table three as
 select *
from one outer union corr
select *
 from two;
 quit;
 B. proc sql;
 create table three as
  select *
 from one outer union
 select * from two;
 quit;
 C. proc sql;C.proc sql;
 create table three as
 select *
 from one union
  select *
  from two;
  quit; D. proc sql;
D.proc sql;
create table three as
 select *
 from one union corr
 select *
 from two;
quit;
```

Answer: A

Question: 104

Which one of the following statements about compressed SAS data sets is always true?

A. Each observation is treated as a single string of bytes.
B. Each observation occupies the same number of bytes.
C. An updated observation is stored in its original location.
D. New observations are added to the end of the SAS data set.

Answer: A

Question: 105
Given the following SAS data sets ONE and TWO:
ONE TWO NUM CHAR1 NUM CHAR2
---------- ----------
1 A1 2 X1
1 A2 2 X2
2 B1 3 Y
2 B2 5 V
4 D
The following SAS program is submitted creating the output table THREE:
proc sql;
create table three as
select one.num, char1, char2
from one, two where one.num = two.num;
quit;
THREE NUM CHAR1 CHAR2
---
2 B1 X1
2 B1 X2
2 B2 X1
2 B2 X2
Which one of the following DATA step programs creates an equivalent SAS data set THREE?

A. data three;
merge one two;
by num;
run;
B. data three;
set one;
set two;
by num;
run; C. data three;
C.data three;
merge one (in = in1) two (in = in2);
by num;
if in1 and in2;
run; D. data three;
D.data three;

```
set one;
 do i = 1 to numobs;
 set two(rename = (num = num2)) point = i nobs = numobs;
 if num2 = num then output;
end;
 drop num2;
 run;
```

Answer: D

Question: 106
Given the following SAS data set ONE:

```
ONE LEVEL AGE
---------------------
1 10
2 20
 3 20
 2 10
 1 10
 2 30
 3 10
2 20
3 30
 1 10
```

The following SAS program is submitted:

```
 proc sql;
select level, max(age) as MAX from one group by level having max(age) >
(select avg(age)
 from one);
quit;
```

Which one of the following reports is generated?

A.
```
 ------------------
 2 20
 3 20
```

B.
```
 ---------------
2 30
 3 30
```

C.
```
 LEVEL MAX
--------------------
2 20
 3 30
```

D.
```
 LEVEL MAX
 ---------------
2 30
```

3 30

Answer: D

Question: 107
The SAS data set ONE consists of five million observations and has 25 variables. Which one of the following SAS programs successfully creates three new variables TOTREV, TOTCOST, and PROFIT and requires the least CPU time to be processed?

```
A. data two;
 set one;
 totrev = sum(price * quantity);
totcost = sum(fixed,variable);
 profit = sum(totrev,otcost);
 if totrev > 1000;
 run;
B. data two;
 set one;
 totrev = sum(price * quantity);
 if totrev > 1000;
 totcost = sum(fixed,variable)
 profit = sum(totrev,otcost);
 run;
C. data two;
set one;
 totrev = sum(price * quantity);
 where totrev > 1000;
 totcost = sum(fixed,variable);
 profit = sum(totrev,otcost);
 run;
D. data two;
set one;
 where totrev > 1000;
 totrev = sum(price * quantity);
totcost = sum(fixed,variable);
profit = sum(totrev,otcost);
 run;
```

Answer: B

Question: 108
Given the following SAS data set ONE:

```
ONE CATEGORY AGE SALARY BONUS
-----------------------------------------------------
M 28 200 20
 M 25 100 10
```

M 28 300 10
M 33 300 30
F 18 100 50
F 25 200 10
F 35 400 50
The following SAS program is submitted: proc sql;
select distinct category, sum(sum(salary,bonus)) as EARNINGS
from one
where age < 30 group by category having calculated EARNINGS < 500;
quit;
Which one of the following reports will be generated?

A. CATEGORY EARNINGS

F 360
B. CATEGORY EARNINGS

M 640
F 360
C. CATEGORY EARNINGS

F 150
F 210
D. CATEGORY EARNINGS
M 220
M 110
M 310
F 150
F 210

Answer: A

Question: 109
Which one of the following is the purpose of the IDXNAME= data set option?

A. It instructs SAS to name and store a specific index.
B. It instructs SAS to store an index in a particular location.
C. It instructs SAS to use a specific index for WHERE processing.
D. It instructs SAS to use any available index for WHERE processing.

Answer: C

Question: 110
The SAS data set ONE contains the variables X, Y, Z, and W. The following SAS program is submitted: proc transpose data = one out = trans name = new;
by x;

```
 var y;
run;
```

Which one of the following contains all the names of the columns created by the TRANSPOSE procedure?

A. X, Y, Z, and W
B. _NAME_, X, and Y
C. new, X, and COL1
D. new, X, Y, and _COL1

Answer: C

Question: 111

Which of the following statement(s) in the DATASETS procedure alters the name of a SAS data set stored in a SAS data library?

A. RENAME statement only
B. CHANGE statement only
C. MODIFY and RENAME statements
D. MODIFY and CHANGE statements

Answer: B

Question: 112

Given the following SAS data set SASUSER.HIGHWAY: SASUSER.HIGHWAY

```
STEERING SEATBELT SPEED STATUS COUNT
---------------------------------------------------------------------------
absent no 0-29 serious 31
 absent no 0-29 not 1419
absent no 30-49 serious191
 absent no 30-49 not 2004
absent no 50+ serious 216
```

The following SAS program is submitted:

```
 %macro highway;
proc sql noprint;
 select count(distinct status)
into :numgrp
 from sasuser.highway;
 %let numgrp = &numgrp;
select distinct status into :
group1-:group&numgrp
from sasuser.highway;
 quit;
 %do i = 1 %to &numgrp;
 proc print data = sasuser.highway;
where status = "&&group&i" ;
 run;
```

%end;
%mend;
%highway
How many reports are produced by the above program?

A. 0
B. 1
C. 2
D. 5D.5

Answer: C

Question: 113
The SAS data set TEMP has the following distribution of values for variable A:
A Frequency
1 500,000
2 500,000
6 7,000,000
8 3,000
Which one of the following SAS programs requires the least CPU time to be processed?

A. data new;
set temp;
if a = 8 then b = 'Small ';
else if a in(1, 2) then b = 'Medium';
else if a = 6 then b = 'Large';
run;
B. data new;
set temp;
if a in (1, 2) then b = 'Medium';
else if a = 8 then b = 'Small';
else if a = 6 then b = 'Large';
run;
C. data new;
set temp;
if a = 6 then b = 'Large ';
else if a in (1, 2) then b = 'Medium';
else if a = 8 then b = 'Small';
run;
D. data new;
D.data new;
set temp;
if a = 6 then b = 'Large ';
if a in (1, 2) then b = 'Medium';
if a = 8 then b = 'Small';

run;

Answer: C

Question: 114
The following SAS program is submitted. filename sales ('external-file1' 'external-file2');
data new;

infile sales;
input date date9. company $ revenue;
run;
Which one of the following is the result of including the FILENAME statement in this program?

A. The FILENAME statement produces an ERROR message in the SAS log.
B. The FILENAME statement associates SALES with external-file2 followed by external-file1.
C. The FILENAME statement associates SALES with external-file1 followed by external-file2.
D. The FILENAME statement reads record 1 from external-file 1, reads record 1 from external-file 2, and combines them into one record.

Answer: C

Question: 115
Which one of the following options controls the pagesize of a SAS data set?

A. SIZE=
B. BUFNO=
C. BUFSIZE=
D. PAGESIZE=

Answer: C

Question: 116
Given the following SAS data set ONE:
ONE CATEGORY AGE SALARY BONUS

M 28 200 20
M 25 100 10
M 28 300 10
M 33 300 30
F 18 100 50
F 25 200 10
F 35 400 50

The following SQL program is submitted:
```
proc sql;
create table two as
select distinct age
from one where age < 33;
quit;
```
How many rows are written to the SAS data set TWO?
A. 3
B. 4
C. 5
D. 6

Answer: A

Question: 117
The following SAS program is submitted:
```
data two; y = '2';
run;
%let x = 10;
%let var = y;
data one;
set two (keep = &var);
z = &var * &x;
run;
```
Which one of the following is the value of the variable Z when the program finishes execution?

A. _ERROR_
B. 20 (as a numeric)
C. 20 (as a character)
D. . (missing numeric)

Answer: B

Question: 118
Given the following SAS statement:
```
%let idcode = Prod567;
```
Which one of the following statements stores the value 567 in the macro variable CODENUM?

A. %let codenum = substr(&idcode,length(&idcode)-2);
B. %let codenum = substr(&idcode,length(&idcode)-3);
C. %let codenum = %substr(&idcode,%length(&idcode)-2);
D. %let codenum = %substr(&idcode,%length(&idcode)-3);

Answer: C

Question: 119
The following SAS program is submitted:
%let a = cat;
%macro animal(a = frog);
%let a = bird;
%mend;
%animal(a = pig) %put a is &a;
Which one of the following is written to the SAS log?

A. a is &a
B. a is cat
C. a is pig
D. a is bird

Answer: B

Question: 120
Which one of the following is the purpose of the REUSE= YES option in a compressed SAS data set?

A. It temporarily compresses observations in a SAS data set.
B. It allows users to update the same SAS data set concurrently.
C. It allows new observations to be inserted wherever enough free space exists.
D. It specifies that a new empty data set with a given name replaces an existing data set with the same name.

Answer: C

Question: 121
In which one of the following SAS programs is the SAS data set index named CHAR1 always used?

A. data three; set one; set two key = char1; run;
B. data three; set one; if char1 in ('new york' 'los angeles'); run;
C. data three; set one; where char1 in ('new york' 'los angeles');
run;
D. proc sql; create table three as
select *
from one, two where one.char1 > two.char1;
quit;

Answer: A

Question: 122

The following SAS program is submitted:
%let first = yourname;
%let last = first;
%put &&&last;
Which one of the following is the result in the log of the %PUT statement?
A. first
B. &first
C. yourname
D. &yourname

Answer: C

Question: 123
The following SAS program is submitted:
data new (bufsize = 6144 bufno = 4);
set old;
run;
Which one of the following describes the difference between the usage of BUFSIZE= and BUFNO= options?

A. BUFSIZE= specifies the size of the input buffer in bytes;
BUFNO= specifies the number of input buffers.
B. BUFSIZE= specifies the size of the output buffer in bytes;
BUFNO= specifies the number of output buffers.
B. BUFSIZE= specifies the size of the output buffer in kilobytes;
BUFNO= specifies the number of input buffers.
C. BUFSIZE= specifies the size of the output buffer in kilobytes;
BUFNO= specifies the number of output buffers.

Answer: B

Question: 124
Which one of the following SAS SORT procedure options eliminates identical consecutive observations?

A. NODUP
B. UNIQUE
C. DISTINCT
D. NODUPKEY

Answer: A

Question: 125
Which one of the following techniques concatenates data in SAS?

A. the APPEND procedure

B. the DATA step with a MERGE statement
C. the DATA step with a COMBINE statement
D. the INTERSECT operator in the SQL procedure

Answer: A

Question: 126
Given the following SAS data sets ONE and TWO:
ONE TWO YEAR QTR BUDGET YEAR QTR SALES
---------- ----------
2001 3 500
2001 4 300
2001 4 400
2002 1 600
2002 1 700
The following SAS program is submitted: proc sql;
select one.*,
sales from one, two;
quit;
Which one of the following reports is generated?
A. YEAR QTR BUDGET SALES

2001 4 400 300
2002 1 700 600
B. YEAR QTR BUDGET SALES

2001 3 500 .
2001 4 400 300
2002 1 700 600
C. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 600
D. YEAR QTR BUDGET SALES

2001 3 500 300
2001 4 400 300
2002 1 700 300
2001 3 500 600
2001 4 400 600
2002 1 700 600

Answer: D

Question: 127
Which one of the following SAS programs uses the most amount of memory resources for output

buffers?

A. data new(bufsize = 1000 bufno = 5);
set temp;
run;
B. data new(bufsize = 1000 bufno = 2);
set temp;
run;
C. data new(bufsize = 2000 bufno = 3);
set temp;
run;
D. data new(bufsize = 4000 bufno = 1);
set temp;
run;

Answer: C

Question: 128
The following SAS FORMAT procedure is submitted:
proc format lib = sasuser;
value tempc low < 0 = 'BELOW FREEZING'
0 < 5 = 'COLD'
5 < 10 = 'MILD'
10 < 15 = 'WARM'
15 high = 'HOT';
run;
How is the value 10 displayed when the format TEMPC is applied?

A. 10
B. MILD
C. WARM
D. BELOW FREEZING

Answer: C

Question: 129
When is it appropriate to create indexes on a SAS data set for efficient processing?

A. if small subsets of data are often retrieved
B. if the key variable has very few unique values
C. if the data are often used for BY group processing
D. if the SAS data set file page count is less than three pages

Answer: A

Question: 130
The following SAS ARRAY statement is submitted:
array score{*} a4 - a10, a25 ;
Which one of the following is the maximum number of elements stored?

A. 3
B. 7
C. 8
D. 11

Answer: C