SAS A00-231

SAS BASE PROGRAMMING CERTIFICATION QUESTIONS & ANSWERS

Exam Summary – Syllabus – Questions

A00-231

SAS Base Programming Specialist
40-45 Questions Exam – 725 / 1000 Cut Score – Duration of 135 minutes

Table of Contents

Know Your A00-231 Certification Well:

The A00-231 is best suitable for candidates who want to gain knowledge in the SAS Programming. Before you start your A00-231 preparation you may struggle to get all the crucial SAS Base Programming materials like A00-231 syllabus, sample questions, study guide.

But don't worry the A00-231 PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the A00-231 syllabus?
- How many questions are there in the A00-231 exam?
- Which Practice test would help me to pass the A00-231 exam at the first attempt?

Passing the A00-231 exam makes you SAS Base Programming Specialist. Having the SAS Base Programming certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

A00-231 SAS Base Programming Certification Details:

Exam Name	SAS Certified Specialist - Base Programming Using SAS 9.4
Exam Code	A00-231
Exam Duration	135 minutes
Exam Questions	40-45
Passing Score	725 / 1000
Exam Price	$180 (USD)
Books	**SAS Programming 1: Essentials** **SAS Programming 2: Data Manipulation Techniques** **SAS Certified Specialist Prep Guide: Base Programming Using SAS 9.4**
Exam Registration	**Pearson VUE**
Sample Questions	**SAS Base Programming Certification Sample Question**
Practice Exam	**SAS Base Programming Certification Practice Exam**

A00-231 Syllabus:

Objective	Details
Access and Create Data Structures (20-25%)	
Create temporary and permanent SAS data sets.	- Use a DATA step to create a SAS data set from an existing SAS data set.
Investigate SAS data libraries using base SAS utility procedures.	- Use a LIBNAME statement to assign a library reference name to a SAS library. - Investigate a library programmatically using the CONTENTS procedure.
Access data.	- Access SAS data sets with the SET statement. - Use PROC IMPORT to access non-SAS data sources. • Read delimited and Microsoft Excel (.xlsx) files with PROC IMPORT. • Use PROC IMPORT statement options (OUT=, DBMS=, REPLACE) • Use the GUESSINGROWS statement - Use the SAS/ACCESS XLSX engine to read a Microsoft Excel workbook.xlsx file.
Combine SAS data sets.	- Concatenate data sets. - Merge data sets one-to-one. - Merge data sets one-to-many.
Create and manipulate SAS date values.	- Explain how SAS stores date and time values. - Use SAS informats to read common date and time expressions. - Use SAS date and time formats to specify how the values are displayed.
Control which observations and variables in a SAS data set are processed and output.	- Use the WHERE statement in the DATA step to select observations to be processed. - Subset variables to be output by using the DROP and KEEP statements. - Use the DROP= and KEEP= data set options to specify columns to be processed and/or output.
Manage Data (35-40%)	
Sort observations in a SAS data set.	- Use the SORT Procedure to re-order observations in place or output to a new dataset with the OUT= option. - Remove duplicate observations with the SORT Procedure.

Objective	Details
Conditionally execute SAS statements.	- Use IF-THEN/ELSE statements to process data conditionally. - Use DO and END statements to execute multiple statements conditionally.
Use assignment statements in the DATA step.	- Create new variables and assign a value. - Assign a new value to an existing variable. - Assign the value of an expression to a variable. - Assign a constant date value to a variable.
Modify variable attributes using options and statements in the DATA step.	- Change the names of variables by using the RENAME= data set option. - Use LABEL and FORMAT statements to modify attributes in a DATA step. - Define the length of a variable using the LENGTH statement.
Accumulate sub-totals and totals using DATA step statements.	- Use the BY statement to aggregate by subgroups. - Use first. and last. processing to identify where groups begin and end. - Use the RETAIN and SUM statements.
Use SAS functions to manipulate character data, numeric data, and SAS date values.	- Use SAS functions such as SCAN, SUBSTR, TRIM, UPCASE, and LOWCASE to perform tasks such as the tasks shown below. • Replace the contents of a character value. • Trim trailing blanks from a character value. • Search a character value and extract a portion of the value. • Convert a character value to upper or lowercase. - Use SAS numeric functions such as SUM, MEAN, RAND, SMALLEST, LARGEST, ROUND, and INT. - Create SAS date values by using the functions MDY, TODAY, DATE, and TIME. - Extract the month, year, and interval from a SAS date value by using the functions YEAR, QTR, MONTH, and DAY. - Perform calculations with date and datetime values and time intervals by using the functions INTCK, INTNX, DATDIF and YRDIF.
Use SAS functions to convert character data to numeric and vice versa.	- Explain the automatic conversion that SAS uses to convert values between data types. - Use the INPUT function to explicitly convert character data values to numeric values. - Use the PUT function to explicitly convert numeric data values to character values.
Process data using DO LOOPS.	- Explain how iterative DO loops function. - Use DO loops to eliminate redundant code and to perform repetitive calculations.

Objective	Details
	- Use conditional DO loops. - Use nested DO loops.
Restructure SAS data sets with PROC TRANSPOSE.	- Select variables to transpose with the VAR statement. - Rename transposed variables with the ID statement. - Process data within groups using the BY statement. - Use PROC TRANSPOSE options (OUT=, PREFIX= and NAME=).
Use macro variables to simplify program maintenance.	- Create macro variables with the %LET statement - Use macro variables within SAS programs.
Error Handling (15-20%)	
Identify and resolve programming logic errors.	- Use the PUTLOG Statement in the Data Step to help identify logic errors. - Use PUTLOG to write the value of a variable, formatted values, or to write values of all variables. - Use PUTLOG with Conditional logic. - Use temporary variables N and ERROR to debug a DATA step.
Recognize and correct syntax errors.	- Identify the characteristics of SAS statements. - Define SAS syntax rules including the typical types of syntax errors such as misspelled keywords, unmatched quotation marks, missing semicolons, and invalid options. - Use the log to help diagnose syntax errors in a given program.
Generate Reports and Output (15-20%)	
Generate list reports using the PRINT procedure.	- Modify the default behavior of PROC PRINT by adding statements and options such as • use the VAR statement to select and order variables. • calculate totals with a SUM statement. • select observations with a WHERE statement. • use the ID statement to identify observations. • use the BY statement to process groups.
Generate summary reports and frequency tables using base SAS procedures.	- Produce one-way and two-way frequency tables with the FREQ procedure. - Enhance frequency tables with options (NLEVELS, ORDER=). - Use PROC FREQ to validate data in a SAS data set. - Calculate summary statistics and multilevel summaries using the MEANS procedure - Enhance summary tables with options.

Objective	Details
	- Identify extreme and missing values with the UNIVARIATE procedure.
Enhance reports system user-defined formats, titles, footnotes and SAS System reporting options.	- Use PROC FORMAT to define custom formats. • VALUE statement • CNTLIN= option - Use the LABEL statement to define descriptive column headings. - Control the use of column headings with the LABEL and SPLIT=options in Proc Print output.
Generate reports using ODS statements.	- Identify the Output Delivery System destinations. - Create HTML, PDF, RTF, and files with ODS statements. - Use the STYLE=option to specify a style template. - Create files that can be viewed in Microsoft Excel.
Export data	- Create a simple raw data file by using the EXPORT procedure as an alternative to the DATA step. - Export data to Microsoft Excel using the SAS/ACCESS XLSX engine.

SAS A00-231 Sample Questions:

Question: 1

The variable Name in the data set Employee has a $CHAR10. format. The variable Name in the data set Sales has a $CHAR15. format.The following SAS program is submitted:

```
data both;
merge employee sales;
by name;
run;
```

What is the format for the variable Name in the data set Both?

Select one:

a) no format defined
b) $CHAR
c) $CHAR10
d) $CHAR15

Answer: c

Question: 2

Which statement about SAS libraries is true?

Select one:

a) You refer to a SAS library by a logical name called a libname.
b) A SAS library is a collection of one or more SAS files that are referenced and stored as a unit.
c) A single SAS library must contain files that are stored in different physical locations.
d) At the end of each session, SAS deletes the contents of all SAS libraries.

Answer: b

Question: 3

Given the following data set:

subjid	ae_txt1	ae_sev1	ae_txt2	ae_sev2	ae_txt3	ae_sev3
1001	FEVER	MILD	HEADACHE	MODERATE	NAUSEA	MILD
1002	GOUT	SEVERE	FEVER	MODERATE	HEADACHE	SEVERE

Which type of statement was included as a component of a transpose procedure step to produce the following data set?

subjid	COL1
1001	FEVER
1001	MILD
1001	HEADACHE
1001	MODERATE
1001	NAUSEA
1001	MILD
1002	GOUT
1002	SEVERE
1002	FEVER
1002	MODERATE
1002	HEADACHE
1002	SEVERE

Select one:

a) CLASS
b) ID
c) IDLABEL
d) VAR

Answer: d

Question: 4

Given the following SAS data set WORK.CLASS:

Name	Gender	Age
Anna	F	23
Ben	M	25
Bob	M	21
Brian	M	27
Edward	M	26
Emma	F	32
Joe	M	34
Sam	F	32
Tom	M	24

The following program is submitted:

```
data WORK.MALES WORK.FEMALES(drop=age);
set WORK.CLASS;
drop gender;
if Gender="M" then output WORK.MALES;
else if Gender="F" then output WORK.FEMALES;
run;
```

How many variables are in the data set WORK.MALES?

Select one:

a) The program does not execute due to a syntax error.
b) 1
c) 2
d) 3

Answer: c

Question: 5

Assume that Sasuser.One does not exist and that the following SAS program is submitted at the beginning of a new SAS session:

```
data sasuser.one;
x=1;
y=27;
output one;
run;
```

Select one:

a) The data set Sasuser.One is created with 2 variables and 3 observations.
b) The data set Sasuser.One is created with 2 variables and 0 observations.
c) The data set Work.One is created with 2 variables and 1 observation.
d) The data set Sasuser.One is created with 2 variables and 1 observation.

Answer: b

Question: 6

The following SAS program is submitted:

```
proc means data=work.schools median;
<insert statement(s) here>
run;
```

Assume that Work.Schools has two numeric variables and the following PROC MEANS report is produced:

location	N Obs	Variable	Median
school1	3	students	103.0000000
		teachers	8.0000000
school2	3	students	100.0000000
		teachers	8.0000000

Which of the following SAS statements completes the program and creates the desired report?

Select one:

a) by location;
b) group by location;
c) class location;
d) by location; id location;

Answer: c

Question: 7

Assume that Work. Ds1 and Work.Ds2 exist and the following SAS program is submitted:

```
ods pdf file='results.pdf';
proc print data=work.ds1;
run;
proc freq data=work.ds1;
proc freq data=work.ds2;
run;
ods pdf close;
```

How many PDF files are created?

Select one:

a) 1 PDF file with all the output combined
b) 2 PDF files -- one file for each data set used
c) 2 PDF files -- one for the PRINT output and one for the FREQ output
d) 3 PDF files -- one per procedure request

Answer: a

Question: 8

The following SAS program is submitted:

```
data WORK.NEW;
year=2011;
amount=5000;
do i=1 to 5;
year=year+1;
do qtr=1 to 4;
amount=amount*1.1;
end;
end;
run;
proc print data=WORK.NEW noobs;
run;
```

Which output is correct?

a) year amount i qtr
a) 2016 33637.50 6 5
b) year amount i qtr
c) 2017 33637.50 6 5
d) year amount i qtr
e) 2016 33637.50 5 5
e) year amount i qtr
f) 2016 33637.50 6 4

Answer: a

Question: 9

A PROC PRINT report was created with the following title:

Asia Sports Vehicle Summary

After the PROC PRINT report is run, a programmer would next like to produce a PROC FREQ report with the following title:

Asia Sports Vehicle Summary
Distribution by Make

Which statement(s) would produce the new report titles?

Select one:

a) title "Distribution by Make";
b) title "Asia Sports Vehicle Summary";
g) title "Distribution by Make";
c) title "Asia Sports Vehicle Summary";
h) title2 "Distribution by Make";
d) title "Asia Sports Vehicle Summary";
i) subtitle "Distribution by Make";

Answer: c

Question: 10

Given the SAS data set WORK.ONE:

```
X  Y   Z
-  -  --
1  A  27
1  A  33
1  B  45
2  A  52
2  B  69
3  B  70
4  A  82
4  C  91
```

The following SAS program is submitted:

```
data WORK.TWO;
set WORK.ONE;
by X Y;
if First.Y;
run;
proc print data=WORK.TWO noobs;
run;
```

Which report is produced?

Select one:

a) X Y Z

-- -- --

1 B 45
2 A 52
2 B 69
3 B 70
4 A 82
4 C 91

b) X Y Z

-- -- --

1 A 27
1 B 45
2 A 52
2 B 69
3 B 70
4 A 82
4 C 91

c) X Y Z

-- -- --

1 A 33
1 B 45
2 A 52
2 B 69
3 B 70
4 A 82
4 C 91

d) X Y Z

-- -- --

1 A 27
1 B 45
2 A 52
2 B 69
4 A 82
4 C 91

Answer: b

Study Guide to Crack SAS Base Programming A00-231 Exam:

- Getting details of the A00-231 syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the A00-231 exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the SAS provided training for A00-231 exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the A00-231 sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on A00-231 practice tests is must. Continuous practice will make you an expert in all syllabus areas.