



# Pass A00-231 SAS Base Programming Exam: Study Tips & Resources!

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**SAS BASE PROGRAMMING CERTIFICATION  
QUESTIONS & ANSWERS**

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Practice Test**

**A00-231**

**[SAS Certified Specialist - Base Programming Using SAS 9.4](#)**

**40-45 Questions Exam – 725 / 1000 Cut Score – Duration of 135 minutes**

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## Table of Contents

<b>Get Ready for the A00-231 Exam:</b> .....	2
<b>Know More About the SAS Certified Specialist - Base Programming Using SAS 9.4 Certification:</b> .....	2
<b>Learn More About the A00-231 Syllabus:</b> .....	2
<b>Access and Create Data Structures (20-25%)</b> .....	2
<b>Manage Data (35-40%)</b> .....	3
<b>Error Handling (15-20%)</b> .....	5
<b>Generate Reports and Output (15-20%)</b> .....	6
<b>Prepare with A00-231 Sample Questions:</b> .....	7
<b>Tips for Success in the SAS 9.4 Base Programming - Performance-Based Exam Exam:</b> .....	15
<b>Familiarize Yourself with the A00-231 Exam Format:</b> .....	15
<b>Create A Study Timetable for the A00-231 Exam:</b> .....	15
<b>Diversify Your Study Sources:</b> .....	15
<b>Regular Practice for the A00-231 Exam:</b> .....	15
<b>Allow for Rest and Breaks:</b> .....	15
<b>Maintain Organization Throughout Your A00-231 Exam Preparation:</b> .....	16
<b>Seek Guidance from Mentors:</b> .....	16
<b>Regular Review is Crucial for the A00-231 Exam:</b> .....	16
<b>Master Time Management for the A00-231 Exam:</b> .....	16
<b>Have A Positive Mindset:</b> .....	16
<b>Benefits of Passing the A00-231 Exam:</b> .....	16
<b>Explore the Trusted Practice Exam for the A00-231 Certification:</b> .....	17
<b>Final Remarks:</b> .....	17

## Get Ready for the A00-231 Exam:

Prepare effectively for the A00-231 exam using reliable [study strategies and methods](#). Enhance your preparedness, deepen your understanding of the Programming, and enhance your likelihood of achieving success in the SAS Certified Specialist - Base Programming Using SAS 9.4 with our comprehensive guide. Embark on your path to exam excellence today.

## Know More About the SAS Certified Specialist - Base Programming Using SAS 9.4 Certification:

<b>Exam Name</b>	SAS 9.4 Base Programming - Performance-Based Exam
<b>Exam Code</b>	A00-231
<b>Exam Duration</b>	135 minutes
<b>Exam Questions</b>	40-45
<b>Passing Score</b>	725 / 1000
<b>Exam Price</b>	\$180 (USD)
<b>Books / Training</b>	<a href="#">SAS Programming 1: Essentials</a> <a href="#">SAS Programming 2: Data Manipulation Techniques</a>
<b>Exam Registration</b>	<a href="#">Pearson VUE</a>
<b>Sample Questions</b>	<a href="#">SAS Base Programming Specialist Certification Sample Question</a>
<b>Practice Exam</b>	<a href="#">SAS Base Programming Specialist Certification Practice Exam</a>

## Learn More About the A00-231 Syllabus:

Objective	Details
<b><a href="#">Access and Create Data Structures (20-25%)</a></b>	
<b>Create temporary and permanent SAS</b>	- Use a DATA step to create a SAS data set from an existing SAS data set.

Objective	Details
<b>data sets.</b>	
<b>Investigate SAS data libraries using base SAS utility procedures.</b>	<ul style="list-style-type: none"> <li>- Use a LIBNAME statement to assign a library reference name to a SAS library.</li> <li>- Investigate a library programmatically using the CONTENTS procedure.</li> </ul>
<b>Access data.</b>	<ul style="list-style-type: none"> <li>- Access SAS data sets with the SET statement.</li> <li>- Use PROC IMPORT to access non-SAS data sources.               <ul style="list-style-type: none"> <li>• Read delimited and Microsoft Excel (.xlsx) files with PROC IMPORT.</li> <li>• Use PROC IMPORT statement options (OUT=, DBMS=, REPLACE)</li> <li>• Use the GUESSINGROWS statement</li> <li>• Use the DELIMITER statement.</li> </ul> </li> <li>- Use the SAS/ACCESS XLSX engine to read a Microsoft Excel workbook.xlsx file.</li> </ul>
<b>Combine SAS data sets.</b>	<ul style="list-style-type: none"> <li>- Concatenate data sets.</li> <li>- Merge data sets one-to-one.</li> <li>- Merge data sets one-to-many.</li> </ul>
<b>Create and manipulate SAS date values.</b>	<ul style="list-style-type: none"> <li>- Explain how SAS stores date and time values.</li> <li>- Use SAS informats to read common date and time expressions.</li> <li>- Use SAS date and time formats to specify how the values are displayed.</li> </ul>
<b>Control which observations and variables in a SAS data set are processed and output.</b>	<ul style="list-style-type: none"> <li>- Use the WHERE and IF statements in the DATA step to select observations to be processed.</li> <li>- Subset variables to be output by using the DROP and KEEP statements.</li> <li>- Use the DROP= and KEEP= data set options to specify columns to be processed and/or output</li> </ul>
<b>Manage Data (35-40%)</b>	
<b>Sort observations</b>	<ul style="list-style-type: none"> <li>- Use the SORT Procedure to re-order observations in place or</li> </ul>

Objective	Details
<b>in a SAS data set.</b>	output to a new dataset with the OUT= option. - Remove duplicate observations with the SORT Procedure.
<b>Conditionally execute SAS statements.</b>	- Use IF-THEN/ELSE statements to process data conditionally. - Use DO and END statements to execute multiple statements conditionally.
<b>Use assignment statements in the DATA step.</b>	- 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.
<b>Modify variable attributes using options and statements in the DATA step.</b>	- 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.
<b>Accumulate sub-totals and totals using DATA step statements.</b>	- 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.
<b>Use SAS functions to manipulate character data, numeric data, and SAS date values.</b>	- Use SAS functions such as SCAN, SUBSTR, TRIM, COMPRESS, UPCASE, and LOWCASE to perform tasks such as the tasks shown below. <ul style="list-style-type: none"> <li>• Replace the contents of a character value.</li> <li>• Remove unwanted characters from strings.</li> <li>• Search a character value and extract a portion of the value.</li> <li>• Convert a character value to upper or lowercase.</li> </ul> - 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

Objective	Details
	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, and YRDIF. - Use variable lists to efficiently reference multiple variables (OF operator, :,-,--).
<b>Use SAS functions to convert character data to numeric and vice versa.</b>	- 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.
<b>Process data using DO LOOPS.</b>	- Explain how iterative DO loops function. - Use DO loops to eliminate redundant code and to perform repetitive calculations. - Use conditional DO loops. - Use nested DO loops.
<b>Restructure SAS data sets with PROC TRANSPOSE.</b>	- 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=).
<b>Use macro variables to simplify program maintenance.</b>	- Create macro variables with the %LET statement. - Use macro variables within SAS programs. - Use the macro variable name dot delimiter (.).
<b>Error Handling (15-20%)</b>	
<b>Identify and resolve programming logic errors.</b>	- 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.

Objective	Details
<p><b>Recognize and correct syntax errors.</b></p>	<ul style="list-style-type: none"> <li>- Identify the characteristics of SAS statements.</li> <li>- Define SAS syntax rules including the typical types of syntax errors such as misspelled keywords, unmatched quotation marks, missing semicolons, and invalid options.</li> <li>- Use the log to help diagnose syntax errors in a given program.</li> </ul>
<p><b>Generate Reports and Output (15-20%)</b></p>	
<p><b>Generate list reports using the PRINT procedure.</b></p>	<ul style="list-style-type: none"> <li>- Modify the default behavior of PROC PRINT by adding statements and options such as                             <ul style="list-style-type: none"> <li>• use the VAR statement to select and order variables.</li> <li>• calculate totals with a SUM statement.</li> <li>• select observations with a WHERE statement.</li> <li>• use the ID statement to identify observations.</li> <li>• use the BY statement to process groups.</li> <li>• use the NOOBS and LABEL options.</li> </ul> </li> </ul>
<p><b>Generate summary reports and frequency tables using base SAS procedures.</b></p>	<ul style="list-style-type: none"> <li>- Produce one-way and two-way frequency tables with the FREQ procedure.</li> <li>- Enhance frequency tables with options (NLEVELS, ORDER=).</li> <li>- Use PROC FREQ to validate data in a SAS data set.</li> <li>- Calculate summary statistics and multilevel summaries using the MEANS procedure.                             <ul style="list-style-type: none"> <li>• WAYS, CLASS, VAR, OUTPUT statements</li> </ul> </li> <li>- Enhance summary tables with options.</li> <li>- Identify extreme and missing values with the UNIVARIATE procedure.</li> </ul>
<p><b>Enhance reports using user-defined formats, titles, footnotes, and SAS System</b></p>	<ul style="list-style-type: none"> <li>- Use PROC FORMAT to define custom formats.                             <ul style="list-style-type: none"> <li>• VALUE statement</li> <li>• CNTLIN= option</li> </ul> </li> <li>- Use the LABEL statement to define descriptive column headings.</li> </ul>

Objective	Details
<b>reporting options.</b>	- Control the use of column headings with the LABEL and SPLIT=options in PROC PRINT  output.
<b>Generate reports using ODS statements.</b>	- Identify the Output Delivery System destinations. - Create HTML, PDF, RTF, XLSX, and PPTX files with ODS statements. - Use the STYLE=option to specify a style template. - Generate comma separated value (CSV) files with ODS statements
<b>Export data</b>	- Create a simple raw data file by using the EXPORT procedure as an alternative to the  DATA step.  <ul style="list-style-type: none"> <li>Control the export file format with common DBMS identifiers: (csv, jmp, tab, dlm).</li> </ul> - Export data to Microsoft Excel using the SAS/ACCESS XLSX engine.

## Prepare with A00-231 Sample Questions:

### Question: 1

Which statement about SAS libraries is true?

Select one:

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

**Answer: b**



**Question: 2**

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:

	N		
location	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: 3**

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";  
title "Distribution by Make";
- c) title "Asia Sports Vehicle Summary";  
title2 "Distribution by Make";
- d) title "Asia Sports Vehicle Summary";  
subtitle "Distribution by Make";

**Answer: c**

**Question: 4**

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: 5**

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: 6**

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: 7**

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: 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  
2016 33637.50 6 5
- b) year amount i qtr  
2017 33637.50 6 5
- c) year amount i qtr  
2016 33637.50 5 5
- d) year amount i qtr  
2016 33637.50 6 4

**Answer: a**

**Question: 9**

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: 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**

# Tips for Success in the SAS 9.4 Base Programming - Performance-Based Exam Exam:

## Familiarize Yourself with the A00-231 Exam Format:

Before starting your study regimen, it's crucial to acquaint yourself with the structure of the A00-231 exam. Take a moment to [review the exam syllabus](#), grasp the test format, and pinpoint the main areas of concentration. Having prior knowledge of the exam's layout will assist you in customizing your study strategy effectively.

## Create A Study Timetable for the A00-231 Exam:

To prepare efficiently for the A00-231 exam, devise a study schedule that aligns with your lifestyle and preferred learning approach. Allocate dedicated time slots for studying each day, prioritizing topics according to their significance and your level of proficiency. Maintaining consistency by adhering to your schedule and steering clear of procrastination is imperative.

## Diversify Your Study Sources:

Ensure you broaden your study material beyond just one source. Use various resources like textbooks, online courses, practice exams, and study guides to understand the A00-231 exam subjects thoroughly. Each resource provides distinct perspectives and explanations that can enrich your learning journey.

## Regular Practice for the A00-231 Exam:

Consistent practice is essential for effective preparation for the A00-231 exam. Engaging in regular practice enables you to strengthen your grasp of essential concepts, improve your problem-solving abilities, and become accustomed to the exam format. Allocate dedicated time to solving practice questions and sample tests to assess your progress accurately.

## Allow for Rest and Breaks:

While studying is crucial, taking breaks and rest is equally vital. Pushing yourself too hard without sufficient rest can result in burnout and reduced effectiveness. Incorporate short breaks into your study sessions to recharge and stay focused.



## Maintain Organization Throughout Your A00-231 Exam Preparation:

Keep yourself organized as you prepare for the A00-231 exam by monitoring your progress and managing your materials effectively. Ensure your study area remains neat, utilize folders or digital aids to arrange your notes and resources, and develop a checklist of topics to review. Employing an organized approach will assist you in staying focused and reducing stress levels.

## Seek Guidance from Mentors:

Feel free to ask for clarification when you come across confusing or difficult concepts during your study sessions. Seek support from peers, instructors, or online forums to address any uncertainties. Addressing doubts will prevent misunderstandings and ensure you develop a strong [understanding of the material](#).

## Regular Review is Crucial for the A00-231 Exam:

Frequent revisiting of material is paramount for retaining information over the long term. Revisit topics you've already covered to strengthen your comprehension and pinpoint areas that need further focus. Regular review sessions will [solidify your understanding](#) and enhance your confidence.

## Master Time Management for the A00-231 Exam:

Skillful time management is essential on the exam day to ensure you finish all sections within the designated time limits. During your practice sessions, replicate the conditions of the A00-231 exam and practice managing your time accordingly. Formulate strategies for efficiently addressing each section to optimize your score.

## Have A Positive Mindset:

Finally, maintain a positive attitude and have faith in your capabilities. Stay confident in your preparation and trust that you are well-prepared to handle the A00-231 exam. Envision success, remain focused, and approach the exam calmly and objectively.

## Benefits of Passing the A00-231 Exam:

- Completing the A00-231 exam unlocks pathways to fresh career prospects and progression within your industry.
- The extensive preparation needed for the A00-231 certification equips you with comprehensive knowledge and practical expertise applicable to your field.

- Possessing the A00-231 certification showcases your mastery and dedication to excellence, garnering acknowledgment from both peers and employers.
- Certified professionals often command higher salaries and have greater potential for earning than those without certification.
- Acquiring the A00-231 certification validates your competence and trustworthiness, fostering confidence among clients, employers, and peers.

## Explore the Trusted Practice Exam for the A00-231 Certification:

At [analyticsexam.com](https://www.analyticsexam.com), you'll find comprehensive resources for the A00-231 exam. Our platform offers authentic practice exams tailored specifically for the A00-231 certification. What advantages do these practice exams provide? You'll encounter genuine exam-style questions expertly crafted by industry professionals, allowing you to improve your performance in the exam. Rely on [analyticsexam.com](https://www.analyticsexam.com) for rigorous, unlimited access to [A00-231 practice exams](#) for two months, allowing you to boost your confidence steadily. Through focused practice, numerous candidates have successfully streamlined their path to achieving the SAS Certified Specialist - Base Programming Using SAS 9.4.

### Final Remarks:

Preparing for the A00-231 examination demands commitment, strategic planning, and efficient study methods. Implementing these study suggestions can enrich your preparation, elevate your self-assurance, and increase your likelihood of excelling in the exam. Keep your focus sharp, maintain organization, and believe in your abilities. Best of luck!

### Here Is the Trusted Practice Test for the A00-231 Certification

AnalyticsExam.Com is here with all the necessary details regarding the A00-231 exam. We provide authentic practice tests for the A00-231 exam. What do you gain from these practice tests? You get to experience the real exam-like questions made by industry experts and get a scope to improve your performance in the actual exam. Rely on AnalyticsExam.Com for rigorous, unlimited two-month attempts on the [A00-231 practice tests](#), and gradually build your confidence. Rigorous practice made many aspirants successful and made their journey easy towards grabbing the SAS Certified Specialist - Base Programming Using SAS 9.4.

**Start Online Practice of A00-231 Exam by Visiting URL**

<https://www.analyticsexam.com/sas/a00-231-sas-94-base-programming-performance-based-exam>