



# SAS A00-232

## SAS ADVANCED PROGRAMMING CERTIFICATION QUESTIONS & ANSWERS

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### Exam Summary – Syllabus – Questions

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**A00-232**

**SAS Advanced Programming Professional**

**20-30 Questions Exam – 725 / 1000 Cut Score – Duration of 150 minutes**

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## Know Your A00-232 Certification Well:

The A00-232 is best suitable for candidates who want to gain knowledge in the SAS Programming. Before you start your A00-232 preparation you may struggle to get all the crucial SAS Advanced Programming materials like A00-232 syllabus, sample questions, study guide.

But don't worry the A00-232 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 A00-232 syllabus?
- How many questions are there in the A00-232 exam?
- Which Practice test would help me to pass the A00-232 exam at the first attempt?

Passing the A00-232 exam makes you SAS Advanced Programming Professional. Having the SAS Advanced 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.

## A00-232 SAS Advanced Programming Certification Details:

<b>Exam Name</b>	SAS Certified Professional - Advanced Programming Using SAS 9.4
<b>Exam Code</b>	A00-232
<b>Exam Duration</b>	150 minutes
<b>Exam Questions</b>	20-30 (10-15 programming projects and 10-15 standard exam questions)
<b>Passing Score</b>	725 / 1000
<b>Exam Price</b>	\$180 (USD)
<b>Books / Training</b>	<a href="#">SAS Programming 3: Advanced Techniques</a> <a href="#">SAS Macro Language 1: Essentials</a> <a href="#">SAS SQL 1: Essentials</a> <a href="#">SAS Certified Professional Prep Guide: Advanced Programming Using SAS 9.4</a>
<b>Exam Registration</b>	<a href="#">Pearson VUE</a>
<b>Sample Questions</b>	<a href="#">SAS Advanced Programming Certification Sample Question</a>
<b>Practice Exam</b>	<a href="#">SAS Advanced Programming Certification Practice Exam</a>

## A00-232 Syllabus:

Objective	Details
<b>Accessing Data Using SQL</b>	
<b>Generate detail reports by working with a single table, joining tables, or using set operators in SQL</b>	<ul style="list-style-type: none"> <li>- Use PROC SQL to perform SQL queries.</li> <li>- Select columns in a table with a SELECT statement and FROM clause.</li> <li>- Create a table from a query result set.</li> <li>- Create new calculated columns.</li> <li>- Assign an alias with the AS keyword.</li> <li>- Use case logic to select values for a column.</li> <li>- Retrieve rows that satisfy a condition with a WHERE clause.</li> <li>- Subset data by calculated columns with the CALCULATED keyword.</li> <li>- Join tables - inner joins, full joins (coalesce function), right joins, left joins, cross joins.</li> <li>- Combine tables using set operators - union, outer join, except, intersect.</li> <li>- Sort data with an ORDER BY clause.</li> <li>- Assign labels and formats to columns.</li> </ul>
<b>Generate summary reports by working with a single table, joining tables, or using set operators in the SQL.</b>	<ul style="list-style-type: none"> <li>- Summarize data across and down columns using summary functions (AVG, COUNT, MAX, MIN, SUM).</li> <li>- Group data using GROUP BY clause.</li> <li>- Filter grouped data using HAVING clause.</li> <li>- Eliminate duplicate values with the DISTINCT keyword.</li> </ul>
<b>Construct sub-queries and in-line views within an SQL procedure step.</b>	<ul style="list-style-type: none"> <li>- Subset data by using non-correlated subqueries.</li> <li>- Reference an in-line view with other views or tables (multiple tables).</li> </ul>
<b>Use special features of the SQL procedure.</b>	<ul style="list-style-type: none"> <li>- Use SAS data set options with PROC SQL (KEEP=, DROP=, RENAME=, OBS=).</li> <li>- Use PROC SQL invocation options (INOBS=, OUTOBS=, NOPRINT, NUMBER)</li> <li>- Use PROC SQL with the SAS Macro Facility to create macro variables with the INTO keyword.</li> <li>- Use SAS functions (SCAN, SUBSTR, LENGTH).</li> <li>- Access SAS system information by using DICTIONARY tables (members, tables, columns)</li> </ul>
<b>Macro Processing</b>	
<b>Create and use user-defined and automatic macro</b>	<ul style="list-style-type: none"> <li>- Define and use macro variables.</li> <li>- Use macro variable name delimiter. (.)</li> <li>- Use INTO clause of the SELECT statement in SQL.</li> </ul>

Objective	Details
<b>variables within the SAS Macro Language.</b>	<ul style="list-style-type: none"> <li>- Use the SYMPUTX routine in a DATA Step.</li> <li>- Control variable scope with: <ul style="list-style-type: none"> <li>• %GLOBAL statement</li> <li>• %LOCAL statement</li> <li>• SYMPUTX scope parameter</li> </ul> </li> </ul>
<b>Automate programs by defining and calling macros using the SAS Macro Language.</b>	<ul style="list-style-type: none"> <li>- Define a macro using the %MACRO and %MEND statements.</li> <li>- Insert comments into macros.</li> <li>- Pass Information into a macro using parameters.</li> <li>- Generate SAS Code conditionally by using the %IF-%THEN-%ELSE macro statements or iterative %DO statements.</li> </ul>
<b>Use macro functions.</b>	<ul style="list-style-type: none"> <li>- Use macro character functions. (%SCAN, %SUBSTR, %INDEX, %UPCASE)</li> <li>- Use macro quoting functions. (%NRSTR, %STR)</li> <li>- Use macro evaluation functions. (%EVAL)</li> <li>- Use %SYSFUNC to execute DATA step functions within the SAS Macro Language.</li> </ul>
<b>Debug macros.</b>	<ul style="list-style-type: none"> <li>- Trace the flow of execution with the MLOGIC option.</li> <li>- Examine the generated SAS statements with the MPRINT option.</li> <li>- Examine macro variable resolution with the SYMBOLGEN option.</li> <li>- Use the %PUT statement to print information to the log.</li> </ul>
<b>Create data-driven programs using SAS Macro Language.</b>	<ul style="list-style-type: none"> <li>- Create a series of macro variables.</li> <li>- Create a macro variable containing a delimited list of values using PROC SQL.</li> <li>- Use indirect reference to macro variables. (&amp;&amp;, etc)</li> <li>- Generate repetitive macro calls using: <ul style="list-style-type: none"> <li>• the %DO loop,</li> <li>• SQL query with SELECT INTO</li> <li>• DATA Step with DOSUBL or the EXECUTE routine function.</li> </ul> </li> </ul>
<b>Advanced Techniques</b>	
<b>Process data using 1 and 2 dimensional arrays.</b>	<ul style="list-style-type: none"> <li>- Define and use character arrays.</li> <li>- Define and use numeric arrays.</li> <li>- Create variables with arrays.</li> <li>- Reference arrays within a DO loop.</li> <li>- Specify the array dimension with the DIM function.</li> <li>- Define arrays as temporary arrays.</li> <li>- Load initial values for an array from a SAS data set.</li> </ul>

Objective	Details
<b>Process data using hash objects</b>	<ul style="list-style-type: none"> <li>- Declare hash and hash iterator objects <ul style="list-style-type: none"> <li>• Dataset argument</li> <li>• Ordered argument</li> <li>• Multidata argument</li> </ul> </li> <li>- Use hash object methods <ul style="list-style-type: none"> <li>• definekey()</li> <li>• definedata()</li> <li>• definedone()</li> <li>• find()</li> <li>• add()</li> <li>• output()</li> </ul> </li> <li>- Use hash iterator object methods <ul style="list-style-type: none"> <li>• first()</li> <li>• next()</li> <li>• last()</li> <li>• prev()</li> </ul> </li> <li>- Use hash objects as lookup tables.</li> <li>- Use hash objects to create sorted data sets.</li> <li>- Use hash iterator objects to access data in forward or reverse key order.</li> </ul>
<b>Use SAS utility procedures</b>	<ul style="list-style-type: none"> <li>- Specify a template using the PICTURE statement within the FORMAT Procedure <ul style="list-style-type: none"> <li>• Specify templates for date, time, and datetime values using directives.</li> <li>• Specify templates for numeric values using digit selectors.</li> </ul> </li> <li>- Create custom functions with the FCMP procedure <ul style="list-style-type: none"> <li>• Create character and numeric custom functions with single or multiple arguments.</li> <li>• Create custom functions based on conditional processing.</li> <li>• Use custom functions with the global option CMPLIB=.</li> </ul> </li> </ul>

## SAS A00-232 Sample Questions:

### Question: 1

You submit the following SAS statement:

```
%let idcode=Prod567;
```

Which SAS statement stores the value 567 in the macro variable codenum?

Select one:

- 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: 2

Open a new programming window to create MAC01.sas in c:\cert\programs. Write a DATA step that reads only the first observation of the sashelp.cars data set and stores the value of the Make variable in a macro variable named CarMaker.

The macro variable must be defined from within the DATA Step.

Run your program and troubleshoot as necessary. When you are finished with the project:

1. Ensure that you have saved your program as MAC01.sas in c:\cert\programs.
2. From the score.sas program, call the scoreit macro using MAC01 as the parameter: %scoreit(MAC01).

What is the value for Response in the SAS log?

Solution: The CarMaker macro variable will have a value of Acura. The program will include a symputx routine.

Determine whether the given solution is correct?

- a) Correct
- b) Incorrect

**Answer: a**

### Question: 3

Which statement correctly describes a SAS in-line view?

- a) A SAS in-line view is a subquery in the HAVING clause.
- b) A SAS in-line view is used to populate a SAS array from a SAS data set.
- c) A SAS in-line view is a SAS data set that contains a compiled DATA step.
- d) A SAS in-line view is a temporary table that exists only during the SQL procedure query execution.

**Answer: d**

### Question: 4

You write the following note to the SAS log:

NOTE: The macro LOCATION completed compilation  
without errors  
6 instructions 172 bytes.

Which SAS System options produces this note?

Select one:

- a) MERROR=ON
- b) MSGLEVEL=I
- c) MAUTOSOURCE
- d) MCOMPILENOTE=ALL

**Answer: d**

### Question: 5

The following SAS program is submitted:

```
options _____;  
%abc(work.look,Hello,There);
```

In the text box above, complete the options statement that will produce the following log messages:

```
M***** (ABC): title1 "Hello" ;  
M***** (ABC): title2 "There" ;  
M***** (ABC): proc print data=work.look ;  
M***** (ABC): run ;
```

Solution: mprint

Determine whether the given solution is correct?

- a) Correct
- b) Incorrect

**Answer: a**

### Question: 6

Which statement creates global macro variables and assigns null values to the variables?

- a) %ADD
- b) %GLOBAL
- c) %LET
- d) %NULL

**Answer: b**



### Question: 7

A local permanent data set has the following characteristics:

- 80 character variables, length 200, storing 28 bytes of non-repeating characters
- 120 numeric variables, length 8, 14 digits
- 4000 observations

What is the best way to reduce the storage size of this data set?

- a) Compress the data set with character compression
- b) Reduce length of character variables to 28 bytes
- c) Compress the data set with binary compression
- d) Reduce length of character variables to 6 bytes

**Answer: b**

### Question: 8

Which is a characteristic of a hash object in a SAS DATA step?

Select one:

- a) The hash object requires the data to be sorted.
- b) The hash object requires the data to be indexed.
- c) The data contained in the hash object can only be loaded from a SAS data set.
- d) The hash object can contain character or numeric data or it can contain a combination of both character and numeric data.

**Answer: d**

### Question: 9

Open a new programming window to create ACT01.sas in c:\cert\programs.  
Write a SAS program that will:

- Create output data set work.ACT01 using sashelp.pricedata as input.
- Use an array to increase the values of the price1 through price17 variables by 10%.

Run your program and troubleshoot as necessary. When you are finished with the project:

1. Ensure that you have saved your program as ACT01.sas in c:\cert\programs.
2. From the score.sas program, call the scoreit macro using ACT01 as the parameter: %scoreit(ACT01).

What is the value for Response in the SAS log?

Solution: All price values for all price1-through price17 will be increased by 10%. For example, price2 in observation 5 will now be 126.50. Arrays and do loops would be used in the program.

Determine whether the given solution is correct?

- a) Correct
- b) Incorrect

**Answer: a**

**Question: 10**

Select the correct value for x.

```
%let x=%substr("ABCD", 2, 1);
```

Select one:

- a) A
- b) B
- c) C
- a) D) D

**Answer: a**

## Study Guide to Crack SAS Advanced Programming A00-232 Exam:

- Getting details of the A00-232 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 A00-232 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 A00-232 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 A00-232 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 A00-232 practice tests is must. Continuous practice will make you an expert in all syllabus areas.

## Reliable Online Practice Test for A00-232 Certification

Make AnalyticsExam.Com your best friend during your SAS Certified Professional - Advanced Programming Using SAS 9.4 exam preparation. We provide authentic practice tests for the A00-232 exam. Experts design these online practice tests, so we can offer you an exclusive experience of taking the actual A00-232 exam. We guarantee you 100% success in your first exam attempt if you continue practicing regularly. Don't bother if you don't get 100% marks in initial practice exam attempts. Just utilize the result section to know your strengths and weaknesses and prepare according to that until you get 100% with our practice tests. Our evaluation makes you confident, and you can score high in the A00-232 exam.

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