

SAS A00-407

SAS VIYA FORECASTING AND OPTIMIZATION CERTIFICATION
QUESTIONS & ANSWERS

**Get Instant Access to Vital Exam Acing
Materials | Study Guide | Sample
Questions | Practice Test**

A00-407

[SAS Certified Specialist - Forecasting and Optimization Using SAS Viya](#)

50 Questions Exam – 68% Cut Score – Duration of 90 minutes



Table of Contents

Discover More about the A00-407 Certification	2
A00-407 SAS Viya Forecasting and Optimization Certification Details:	2
A00-407 Syllabus:	3
Data Visualization (15% - 20%)	3
Pipeline Modeling (25% - 30%)	3
Hierarchical Forecasting (15% - 20%)	3
Post-Forecasting Functionality (10% - 15%)	4
Optimization (25% - 30%)	4
Broaden Your Knowledge with SAS A00-407 Sample Questions:	5
Avail the Study Guide to Pass A00-407 SAS Viya Forecasting and Optimization Exam:.....	8
Career Benefits:	8

Discover More about the A00-407 Certification

Are you interested in passing the SAS A00-407 exam? First discover, who benefits from the A00-407 certification. The A00-407 is suitable for a candidate if he wants to learn about Advanced Analytics. Passing the A00-407 exam earns you the SAS Certified Specialist - Forecasting and Optimization Using SAS Viya title.

While preparing for the A00-407 exam, many candidates struggle to get the necessary materials. But do not worry; your struggling days are over. The A00-407 PDF contains some of the most valuable preparation tips and the details and instant access to useful [A00-407 study materials just at one click](#).

A00-407 SAS Viya Forecasting and Optimization Certification Details:

Exam Name	SAS Certified Specialist - Forecasting and Optimization Using SAS Viya
Exam Code	A00-407
Exam Duration	90 minutes
Exam Questions	50
Passing Score	68%
Exam Price	\$180 (USD)
Books	Forecasting Using Model Studio in SAS Viya Optimization Concepts for Data Science and Artificial Intelligence
Exam Registration	Pearson VUE
Sample Questions	SAS Viya Forecasting and Optimization Certification Sample Question
Practice Exam	SAS Viya Forecasting and Optimization Certification Practice Exam

A00-407 Syllabus:

Objective	Details
Data Visualization (15% - 20%)	
Create project and load data	<ul style="list-style-type: none"> - Create a Forecasting project (define variable roles) - Load data from various sources - Use Data tab functionality
Visualize data using attribute variables	<ul style="list-style-type: none"> - Load Attributes table - Identify scenarios in which attribute variable are useful in visualizing data - Create a Visualization using Attribute Variables
Pipeline Modeling (25% - 30%)	
Model using a pipeline	<ul style="list-style-type: none"> - Auto-forecast using a pipeline - Build and run a custom pipeline - Given a scenario select and use appropriate pipeline template - Visualize the forecasts
Determine the champion models	<ul style="list-style-type: none"> - Compare models within a pipeline - Recognize and interpret the model family of the champion model - Define the role of accuracy statistics in pipeline comparison - Select the champion model for the project - Explore the champion model
Judge model accuracy using accuracy statistics	<ul style="list-style-type: none"> - Define and calculate MAPE, MAE, RMSE Adaptive learning - Given a scenario determine when is best appropriate to use MAPE, MAE or RMSE - Use a holdout sample to do honest assessment
Hierarchical Forecasting (15% - 20%)	
Generate a forecast using data with a hierarchical structure	<ul style="list-style-type: none"> - Generate a hierarchical forecast with default functionality - Improve the fit of a forecast by adding combined models - Share a model using The Exchange - Visualize the forecast models for a given level of the hierarchy
Use Time Series data creation options	<ul style="list-style-type: none"> - Explain the differences between data accumulation and data aggregation - Given a scenario select the appropriate accumulation or aggregation options

Objective	Details
Implement a hierarchical model or combined model	<ul style="list-style-type: none"> - Given a scenario select the appropriate reconciliation method for a hierarchical model - Generate a combined model
Post-Forecasting Functionality (10% - 15%)	
Implement an override on a forecast in SAS Model Studio	<ul style="list-style-type: none"> - Apply an override to a forecast - Resolve an override conflict - Use attribute variable to set an override - Disseminate tables containing the results of a forecast (manually vs. automatically)
Export a forecast	<ul style="list-style-type: none"> - Prepare exported data set for use in SAS Visual Analytics
Optimization (25% - 30%)	
Optimize using Linear Programming	<ul style="list-style-type: none"> - Explain local properties of functions that are used to solve mathematical optimization problems - Use the OPTMODEL procedure to enter and solve simple linear programming problems - Formulate linear programming problems using index sets of arrays of decision variables, families of constraints, and values stored in parameter arrays - Modify a linear programming problem (changing bounds or coefficients, fixing variables, adding variables or constraints) within the OPTMODEL procedure
Optimize using Nonlinear Programming	<ul style="list-style-type: none"> - Use the OPTMODEL procedure to enter and solve simple nonlinear programming problems - Describe how, conceptually and geometrically, iterative improvement algorithms solve nonlinear programming problems - Identify the optimality conditions for nonlinear programming problems - Solve nonlinear programming problems using OPTMODEL procedure - Interpret information written to the SAS log during the solution of a nonlinear programming problem - Differentiate between the NLP algorithms and how solver options influence the NLP algorithms
Optimize using Mixed Integer Linear Programming	<ul style="list-style-type: none"> - Use the OPTMODEL procedure to enter and solve simple MILP problems - Identify the optimality conditions for MILP problems - Solve MILP programming problems using the OPTMODEL procedure

Broaden Your Knowledge with SAS A00-407

Sample Questions:

Question: 1

Weighted performance measures like WAPE (weighted absolute percent error) are primarily useful for which task in a Model Studio forecasting project?

- a) summarizing model performance for selecting a Champion pipeline for the project
- b) correcting the bias found in unweighted performance measures in the process of selecting a champion pipeline for the project
- c) selecting the champion model for an individual series in a pipeline for a project
- d) choosing which series require overrides prior to choosing the champion pipeline for the project

Answer: a

Question: 2

Which is an example of time series forecasting?

- a) A dried fruit company sends out marketing postcards and models who will respond.
- b) A glue manufacturer wants to know how long it will take for its glue to dry.
- c) A fire department wants to know how many fires it will likely need to fight during the holidays, so that it can staff accordingly.
- d) A hospital wants to know how long its patients will survive after open heart surgery so that adverse effects can be caught early.

Answer: c

Question: 3

Attribute variables are primarily useful to do what in a Model Studio Forecasting project?

- a) Visualize the data and operate on generated forecasts outside the hierarchy defined by the project's BY variables.
- b) Define the project's data hierarchy, and visualize the level data contained in the attribute variable.
- c) Visualize the project's data hierarchy, and operate on generated forecasts inside the hierarchy.
- d) Augment the project's BY variables to define the data hierarchy for modeling and overrides.

Answer: a

Question: 4

Which scenario can generate an Override conflict?

- a) Underlying series with very different scales.
- b) Two or more Overrides on a given series.
- c) A log transformation of the statistical forecasts.
- d) Two adjacent series that don't nest within the data hierarchy.

Answer: b

Question: 5

Which sampling method is preferred for forecasting holdout assessment?

- a) Draw simple random sample without replacement of about 25% of the series.
- b) Draw simple random sample with replacement of about 50% of the series.
- c) Sample first observations in the series, with at least four observations in the holdout data.
- d) Sample last observations in the holdout data, with at least 4 observations in the fit data.

Answer: d

Question: 6

Which situation will result in an override conflict in SAS Visual Forecasting?

- a) Two or more overrides cannot be reconciled for the same time period.
- b) An override affects a combined model forecast.
- c) An override is applied to an aggregated forecast, and one or more components of the aggregated forecast come from models having events or independent variables.
- d) Two or more overrides exceed 100% APE.

Answer: a

Question: 7

The number of Lagrangian multipliers (dual values) in a given linear programming problem is equal to the number of what?

- a) decision variables
- b) objective functions
- c) index sets
- d) constraints

Answer: d

Question: 8

An ARIMA model forecast for two months past the end of the current month for a monthly time series is an example of which action?

- a) Extrapolation
- b) Accumulation
- c) Aggregation
- d) Seasonal adjustment

Answer: a

Question: 9

Which elements are in the NEW set?

```
set FRUITS=/'Apple' 'Banana' 'Cherry'/;
```

```
set PIES=/'Apple' 'Pecan' 'Cherry'/;
```

```
set NEW = FRUITS symdiff PIES;
```

- a) Apple, Cherry
- b) Apple, Banana, Pecan, Cherry
- c) Banana, Pecan
- d) Apple, Apple, Banana, Pecan, Cherry, Cherry

Answer: c

Question: 10

A company's goal is to generate best forecasts. Their focus is widget sales for the next thirty days from the current time interval. Typically, what is the preferred accumulation method and time interval for the data?

- a) Weekly average
- b) Weekly total
- c) Monthly average
- d) Monthly total

Answer: d

Avail the Study Guide to Pass A00-407 SAS Viya Forecasting and Optimization Exam:

- Find out about the A00-407 syllabus topics. Visiting the official site offers an idea about the exam structure and other important study resources. Going through the syllabus topics help to plan the exam in an organized manner.
- Once you are done exploring the [A00-407 syllabus](#), it is time to plan for studying and covering the syllabus topics from the core. Chalk out the best plan for yourself to cover each part of the syllabus in a hassle-free manner.
- A study schedule helps you to stay calm throughout your exam preparation. It should contain your materials and thoughts like study hours, number of topics for daily studying mentioned on it. The best bet to clear the exam is to follow your schedule rigorously.
- The candidate should not miss out on the scope to learn from the A00-407 training. Joining the SAS provided training for A00-407 exam helps a candidate to strengthen his practical knowledge base from the certification.
- Learning about the probable questions and gaining knowledge regarding the exam structure helps a lot. Go through the [A00-407 sample questions](#) and boost your knowledge
- Make yourself a pro through online practicing the syllabus topics. A00-407 practice tests would guide you on your strengths and weaknesses regarding the syllabus topics. Through rigorous practicing, you can improve the weaker sections too. Learn well about time management during exam and become confident gradually with practice tests.

Career Benefits:

Passing the A00-407 exam, helps a candidate to prosper highly in his career. Having the certification on the resume adds to the candidate's benefit and helps to get the best opportunities.

Here Is the Trusted Practice Test for the A00-407 Certification

VMExam.Com is here with all the necessary details regarding the A00-407 exam. We provide authentic practice tests for the A00-407 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 VMExam.Com for rigorous, unlimited two-month attempts on the [A00-407 practice tests](#), and gradually build your confidence. Rigorous practice made many aspirants successful and made their journey easy towards grabbing the SAS Certified Specialist - Forecasting and Optimization Using SAS Viya.

Start Online Practice of A00-407 Exam by Visiting URL

<https://www.analyticsexam.com/sas-certification/a00-407-sas-certified-specialist-forecasting-and-optimization-using-sas-viya>