SAS A00-226

SAS ADVANCED ANALYTICS PROFESSIONAL CERTIFICATION QUESTIONS & ANSWERS

Exam Summary – Syllabus – Questions

A00-226

SAS Certified Advanced Analytics Professional Using SAS 9
50-55 Questions Exam – 68% Cut Score – Duration of 110 minutes

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Know Your A00-226 Certification Well:

The A00-226 is best suitable for candidates who want to gain knowledge in the SAS Advanced Analytics Professional. Before you start your A00-226 preparation you may struggle to get all the crucial SAS Advanced Analytics Professional materials like A00-226 syllabus, sample questions, study guide.

But don't worry the A00-226 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 A00-226 syllabus?
- How many questions are there in the A00-226 exam?
- Which Practice test would help me to pass the A00-226 exam at the first attempt?

Passing the A00-226 exam makes you SAS Certified Advanced Analytics Professional Using SAS 9. Having the SAS Advanced Analytics Professional certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

A00-226 SAS Advanced Analytics Professional Certification Details:

Exam Name	SAS Text Analytics, Time Series, Experimentation and Optimization
Exam Code	A00-226
Exam Duration	110 minutes
Exam Questions	50-55 multiple choice or short answer
Passing Score	68
Exam Price	$180 (USD)
Training	1. **SAS Academy for Data Science: Advanced Analytics** 2. **Text Analytics Using SAS Text Miner** 3. **Time Series Modeling Essentials** 4. **Experimentation in Data Science** 5. **Building and Solving Optimization Models with SAS/OR**
Exam Registration	**Pearson VUE**

Sample Questions	**SAS Advanced Analytics Professional Certification Sample Question**
Practice Exam	**SAS Advanced Analytics Professional Certification Practice Exam**

A00-226 Syllabus:

Objective	Details
Text Analytics - 30%	
Create data sources for text mining	- Create data sources that can be used by SAS Enterprise Miner Projects - Identify data sources that are relevant for text mining
Import data into SAS Text Analytics	- Process document collections and create a single SAS data set for text mining using the Text Import Node - Merge a SAS data set created from Text Importer with another SAS data set containing target information and other non-text variables - Compare two models, one using only conventional input variables and another using the conventional inputs and some text mining variables
Use text mining to support forensic linguistics using stylometry techniques	
Retrieve information for Analysis	- Use the Interactive Text Filter Viewer for information retrieval - Use the Medline medical abstracts data for information retrieval
Parse and quantify Text	- Provide guidelines for using weights - Use SVD to project documents and terms into a smaller dimension metric space - Discuss Text Topic and Text Cluster results in light of the SVD
Perform predictive modeling on text data	- Explain the trade-off between predictive power and interpretability - Set up Text Cluster and Text Topic nodes to affect this trade-off - Perform predictive modeling using the Text Rule Builder node
Use the High-Performance	- Identify the benefits of the HP Text Miner node - Use the HPTMINE procedure

Objective	Details
(HP) Text Miner Node	
Time Series - 30%	
Identify and define time series characteristics, components and the families of time series models	- Transform transactional data into time series data (Accumulate) using PROC TIMESERIES • Transactional Data Accumulation and Time Binning - Define the systematic components in a time series (level, seasonality, trend, irregular, exogenous, cycle) - Describe the decomposition of time series variation (noise and signal) - List three families of time series models • exponential smoothing (ESM) • autoregressive integrated moving average with exogenous variables (ARIMAX) • unobserved components (UCM) - Identify the strengths and weaknesses of the three model types • usability • complexity • robustness • ability to accommodate dynamic regression effects
Diagnose, fit and interpret ARIMAX Models	- Analyze a time series with respect to signal (system variation) and noise (random variation) - Explain the importance of the Autocorrelation Function Plot and the White Noise Test in ARMA modeling - Compare and contrast ARMA and ARIMA models - Define a stationary time series and discuss its importance - Describe and identify autoregressive and moving average processes - Estimate an order 1 autoregressive model - Evaluate estimates and goodness-of-fit statistics - Explain the X in ARMAX - Relate linear regression with time series regression models - Recognize linear regression assumptions - Explain the relationship between ordinary multiple linear regression models and time series regression models - Explain how to use a holdout sample to forecast - Given a scenario, use model statistics to evaluate forecast accuracy - Given a scenario, use sample time series data to exemplify forecasting concepts
Diagnose, fit and interpret	- Describe the history of ESM - Explain how ESMs work and the types of systematic components

Objective	Details
Exponential Smoothing Models	they accommodate - Describe each of the seven types of ESM formulas - Given a sample data set, choose the best ESM using a hold-out sample, output fit statistics, and forecast data sets
Diagnose, fit and interpret Unobserved Components Models	- Describe the basic component models: level, slope, seasonal - Be able to explain UCM strengths and when it would be good to use UCM • Example: Visualization of component variation - Given a sample scenario, be able to explain how you would build a UCM • Adding and deleting component models and interpreting the diagnostics
Experimentation & Incremental Response Models - 20%	
Explain the role of experiments in answering business questions	- Determine whether a business question should be answered with a statistical model - Compare observational and experimental data - List the considerations for designing an experiment - Control the experiment for nuisance variables - Explain the impact of nuisance variables on the results of an experiment - Identify the benefits of deploying an experiment on a small scale
Relate experimental design concepts and terminology to business concepts and terminology	- Define Design of Experiments (DOE) terms (response, factor, effect, blocking, etc) - Map DOE terms to business marketing terms - Define and interpret interactions between factors - Compare one-factor-at-a-time (OFAT) experiment methods to factorial methods - Describe the attributes of multifactor experiments (randomization, orthogonality, etc) - Identify effects in a multifactor experiment - Explain the difference between blocks and covariates
Explain how incremental response models can identify cases that are most responsive to an action	- Design the experimental structure to assess the impact of the model versus the impact of the treatment - Explain the effect of both the model and the message from assessment experiment data - Describe the standard customer segments with respect to marketing campaign targets - Explain the value of using control groups in data science - Define an incremental response
Use the Incremental Response node in SAS	- List the required data structure components of the Incremental Response node - Explain Net Information Value (NIV) and Penalized Net Information Value (PNIV) and their use in SAS Enterprise Miner

Objective	Details
Enterprise Miner	- Explain Weight of Evidence (WOE) and Net Weight of Evidence (NWOE) and their use in SAS Enterprise Miner - Use stepwise regression with the Incremental Response node - Adjust model properties for various types of incremental revenue analysis - Compare variable/constant revenue and cost models - Understand and explain the value of difference scores in the combined incremental response model - Use difference scores to compare treatment and control
Optimization - 20%	
Optimize linear programs	- 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 and 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 - Use the Data Envelope Analysis (DEA) linear programming technique
Optimize nonlinear programs	- 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 the 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

SAS A00-226 Sample Questions:

Question: 1

After creating a data source within the SAS Code node, which macro is used to modify the metadata of the data source (specifically changing the roles and levels for each variable)?

a) %EM_REGISTER
b) %EM_DECDATA
c) %EM_PROPERTY
d) %EM_METACHANGE

Answer: d

Question: 2

You have just built an optimization model with two constraints, Con1 and Con2. Below is partial code and output.

solve with LP;

print Con1.dual Con2.dual;

Con1.DUAL - 8

Con2.DUAL - 0

A binding constraint is a constraint that is equal to its limit. Which statement is true regarding Con1 and Con2?

a) Both Con1 and Con2 are binding constraints.
b) Both Con1 and Con2 are non-binding constraints.
c) Con1 is a non-binding constraint and Con2 is a binding constraint.
d) Con1 is a binding constraint and Con2 is a non-binding constraint.

Answer: d

Question: 3

What is a primary value of text mining as applied to forensic linguistics analysis?

a) Determining the native language of a suspect can help identify where a suspect may reside.
b) Word frequencies of written or spoken communication can help discriminate between suspects.
c) The usage of certain emotion-based nouns, verbs, and adjectives indicate criminal pathology.
d) Determines if the written or spoken communication is the subject's second language.

Answer: b

Question: 4

Refer to the exhibit below from an Incremental Response node from SAS Enterprise Miner.

Revenue Calculation	
Use Constant Revenue	No
Revenue Per Response	10.0
Use Constant Cost	Yes
Cost	0.5

What can be inferred from the properties above?

a) The expected revenue for individual customers is $10.
b) The expected revenue for individual customers is $9.50.
c) The expected revenue for individual customers is the estimated outcome from the model.
d) The input data set contains an expected revenue variable, with values for individual customers.

Answer: c

Question: 5

Why are iterative search algorithms used for solving non-linear programming (NLP) problems?

a) NLP are not convex.
b) A unique, optimal solution is not guaranteed.
c) The gradient of the objective is un-bounded.
d) NLP have only one local optimum.

Answer: b

Question: 6

What 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: 7

What distinguishes a deterministic linear trend from other local linear trends?

a) A deterministic linear trend is always linear; other local linear trends are only linear over certain intervals.
b) A deterministic linear trend does not contain a seasonal component; other local linear trends do contain a seasonal component.
c) A deterministic trend has a predetermined slope; other local linear trends do not have a predetermined slope.
d) A deterministic linear trend shows the same slope at all time periods; other local linear trends do not show the same slope at all time periods.

Answer: d

Question: 8

Which measure assesses predictive accuracy?

a) AIC
b) SBC
c) MAE
d) Ljung-Box

Answer: c

Question: 9

What is desirable in experimental design?

a) Replication for individual factors.
b) Removal of nuisance terms from the model.
c) Randomization across covariates levels.
d) More levels for each factor.

Answer: a

Question: 10

In the Text Topic node, the Singular Value Decomposition (SVD) dimensions are rotated. What is the purpose of this rotation?

a) To interpret each dimension with a set of terms.
b) To determine the number of topics that are discovered.
c) To ensure the topics are relevant to your interests.
d) To avoid producing topics that are too similar

Answer: a

Study Guide to Crack SAS Advanced Analytics Professional A00-226 Exam:

- Getting details of the A00-226 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 A00-226 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 A00-226 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 A00-226 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 A00-226 practice tests is must. Continuous practice will make you an expert in all syllabus areas.