

## Sample Questions

The following sample questions are not inclusive and do not necessarily represent all of the types of questions that comprise the exams. The questions are not designed to assess an individual's readiness to take a certification exam.

### SAS 9.4 Base Programming – Performance-based Exam

#### Practical Programming Questions:

##### Project 1:

This project will use data set **sashelp.shoes**.

Write a SAS program that will:

- Read **sashelp.shoes** as input.
- Create the SAS data set **work.sortedshoes**.
- Sort the **sashelp.shoes** data set:
  - First by variable **product** in descending order.
  - Second by variable **sales** in ascending order.

Run the program and answer the following questions:

**Question 1:** What is the value of the **product** variable in observation 148?

Answer: Slipper

**Question 2:** What is the value of the **Region** variable in observation 130?

Answer: Pacific

##### Project 2:

This project will use the data set **sashelp.shoes**.

Write a SAS program that will:

- Read **sashelp.shoes** as input.
- Create a new SAS data set, **work.shoerange**.
- Create a new character variable **SalesRange** that will be used to categorize the observations into three groups.
- Set the value of **SalesRange** to the following:
  - *Lower* when **Sales** are less than \$100,000.
  - *Middle* when **Sales** are between \$100,000 and \$200,000, inclusively.
  - *Upper* when **Sales** are above \$200,000.

Run the program, then use additional SAS procedures to answer the following questions:

**Question 3:** How many observations are classified into the “Lower” group?

Answer: 288

**Question 4:** What is the mean value of the **Sales** variable for observations in the “Middle” group? Round your answer to the nearest whole number.

Answer: 135127

### Project 3:

This project will work with the following program:

```
data work.lowchol work.highchol;
  set sashelp.heart;
  if cholesterol lt 200 output work.lowchol;
  if cholesterol ge 200 output work.highchol;
  if cholesterol is missing output work.misschol;
run;
```

This program is intended to:

- Divide the observations of **sashelp.heart** into three data sets, **work.highchol**, **work.lowchol**, and **work.misschol**
- Only observations with **cholesterol** below *200* should be in the **work.lowchol** data set.
- Only Observations with **cholesterol** that is *200* and above should be in the **work.highchol** data set.
- Observations with missing cholesterol values should only be in the **work.misschol** data set.

Fix the errors in the above program. There may be multiple errors in the program. Errors may be syntax errors, program structure errors, or logic errors. In the case of logic errors, the program may not produce an error in the log.

After fixing all of the errors in the program, answer the following questions:

**Question 5:** How many observations are in the **work.highchol** data set?

Answer: 3652

**Question 6:** How many observations are in the **work.lowchol** data set?

Answer: 1405

### Standard Questions:

#### Question 7:

The following SAS program is submitted:

```
data WORK.TEMP;
  Char1='0123456789';
```

```
Char2=substr(Char1,3,4);  
run;
```

What is the value of Char2?

- A. 23
- B. 34
- C. 345
- D. 2345

Answer: D

### Question 8:

The following SAS program is submitted:

```
proc format;  
  value score 1 - 50 = 'Fail'  
           51 - 100 = 'Pass';  
run;
```

Which one of the following PRINT procedure steps correctly applies the format?

- A. 

```
proc print data = SASUSER.CLASS;  
  var test;  
  format test score;  
run;
```
- B. 

```
proc print data = SASUSER.CLASS;  
  var test;  
  format test score.;  
run;
```
- C. 

```
proc print data = SASUSER.CLASS format = score;  
  var test;  
run;
```
- D. 

```
proc print data = SASUSER.CLASS format = score.;  
  var test;  
run;
```

Answer: B

### Question 9:

Given the SAS data set WORK.ONE:

Revenue2008	Revenue2009	Revenue2010
----- 1.2	----- 1.6	----- 2.0

The following SAS program is submitted:

```
data WORK.TWO;
  set WORK.ONE;
  Total=sum(of Rev:);
run;
```

What value will SAS assign to **Total**?

- A) 3
- B) 1.6
- C) 4.8
- D) The program fails to execute due to errors.

Answer: C

**Question 10:**

Given the SAS data set WORK.INPUT:

Var1	Var2
A	one
A	two
B	three
C	four
A	five

The following SAS program is submitted:

```
data WORK.ONE WORK.TWO;
  set WORK.INPUT;
  if Var1='A' then output WORK.ONE;
  output;
run;
```

How many observations will be in data set WORK.ONE?

Enter your numeric answer in the space below.

Answer: 8