

-----STATION 1-----

1. Which of the following statements displays all user-defined macro variables in the SAS log?

- a) %put user=;
- b) %put user;
- c) %put _user_;
- d) options mprint

2. The data set Company.Employee has 100 observations and contains the variables Name, Salary and Birthdate. The following SAS program is submitted:

```
proc sql;  
  <insert SQL procedure statement here>  
  select name, salary, birthdate  
  from work.employees;  
quit;
```

Which of the following statements successfully completes the program to append the data in Work.Newemployees to Company.Employee?

- a) alter company.employee (name, salary, birthdate)
- b) update company.employee (name, salary, birthdate)
- c) modify company.employee (name, salary, birthdate)
- d) insert into company.employee (name, salary, birthdate)



3. The following SAS program is submitted:

```
data two;  
  y= '2';  
run;  
  
%let x= 10;  
%let var= y;  
  
data one;  
  set two (keep= &var);  
  z= &var*&x;  
run;
```

Which of the following answers is the value of the variable z when the program finishes executing?

- a) _ERROR_
- b) 20
- c) y*20
- d) . (missing value)

4. After submitting a SAS program, the following is written to the SAS log:

```
11 %let date= o;  
12 proc print data= sashelp.class;  
ERROR: The PUT function referenced in the %SYSFUNC  
      or %QSYSFUNC macro function is not found.  
13     title "SAS Base date is  
      %sysfunc(put(&date, date9.))";  
14 run;
```

What is the cause of this error message?

- a) the PUT function does not exist
- b) the macro variable reference &date needs to have double quotation marks around it
- c) the PUT function cannot be used in %SYSFUNC
- d) the %PUT function is missing a percent sign in front of the word put.

-----STATION 2-----

1. At the beginning of a new SAS session, the following program is submitted:

```
%macro one;
  %let proc= means;
  proc &proc data= sashelp.class;
  run;
%mend;
%one
```

Where is the macro variable **proc** stored?

- a) in the local symbol table
- b) in the global symbol table
- c) in the SAS data set **Work.Sasmacr**
- d) the program fails to execute because PROC is a reserved word

2. The table **One** has five million observations. Table **Two** has one thousand observations. These tables have identical column attributes. Concatenating tables **One** and **Two** should result in 5,001,000 observations.

Which of the following SAS techniques uses the least CPU time and fewest I/O operations to process?

- a) the APPEND procedure
- b) the SET statement in the DATA step
- c) the INSERT INTO statement in an SQL procedure
- d) the OUTER UNION CORR operator in an SQL procedure



3. Which of the following statements cannot be used in a DATA step that reads a raw data file as input?

- a) KEEP statement
- b) IF statement
- c) FORMAT statement
- d) WHERE statement

4. Which statement about this program is true?

```
proc print data= orion.sales;
  var employee_id salary;
  where country= 'AU';
  by gender;
  label salary= 'Annual Salary';
run;
```

- a) the program will run correctly only if **Orion.Sales** is sorted in ascending order by Country
- b) the PROC PRINT report displays only the observations in which the value of Country is AU
- c) the label and format specified in the program are stored in **Orion.Sales**
- d) none of the above

-----STATION 3-----

1. Which statement about this PROC SORT step is true?

```
proc sort data= orion.staff;  
    out= work.staff;  
    by descending salary;  
    manager_ID;  
run;
```

- a) the sorted data set overwrites the input data set
- b) the observations are sorted by Salary in descending order, and then by Manager_ID in descending order
- c) a semicolon should not appear after the input data set name
- d) the sorted data set contains only the variables specified in the BY statement

2. Which of the following is not true of SAS date values?

- a) they are numeric
- b) they can be positive or negative values
- c) they represent the number of days between the day being stored and a base date
- d) the base date is January 1, 1900



3. The following SAS program is submitted at the start of a new SAS session:

```
data sashelp.test;  
    set sashelp.class;  
    if _N_ > 5;  
run;  
  
proc print data= test noobs;  
run;
```

Sashelp.Class contains 5 variables and 19 observations. Which one of the following answers explains what happens when this code is submitted?

- a) the SAS data set **Test** does not exist and no report is generated
- b) the SAS data set **Test** has no observations
- c) the PRINT procedure statement syntax is incorrect and no report is generated
- d) the PRINT procedure statement syntax is correct and a report is generated

4. The data portion of the Work.Salaries data set is shown below. Note that Salary is an 8-byte character variable.

name	status	salary
Liz	S	15,600
Herman	S	26,700
Marty	S	35,000

The following SAS program is submitted:

```
proc print data= work.salaries;  
    where salary GT 20000;  
run;
```

No observations are output. Why?

- a) WHERE statement will not do any automatic data conversion – the step fails
- b) GT is not a valid operator. The symbol > must be used
- c) GT is a valid operator, but it does not work with character data
- d) the WHERE statement must use the value 20,000

-----STATION 4-----

1. The following SAS program is submitted:

```
libname sasdata 'SAS-data-library';
data work.boston
    work.dallas (drop= city equipment);
set sasdata.cities (keep= orig price city dest equipment);
if dest= 'BOS' then output work.boston;
else if dest= 'DFW' then output work.dallas;
drop dest;
run;
```

Which variables are output to both data sets?

- a) City **and** Equipment
- b) Price **and** Orig
- c) Price, Orig, **and** Dest
- d) City, Price, Orig, **and** Equipment

2. 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;
length name $ 20;
merge sales employee;
by id;
run;
```

What is the format of the variable **Name** in the data set **Both**?

- a) \$20
- b) \$CHAR10.
- c) \$CHAR15.
- d) \$CHAR20.

3. The following SAS program is submitted:

```
data work.words;
word1= 'Is';
word2= 'It';
word3= 'Blue';
all= catx(word1, word2, word3);
run;
```

The variable **All** is created with which value? Note that the quotes are shown for readability and are not part of the value.

- a) "It Is Blue"
- b) "ItIsBlue"
- c) "It Is Blue"
- d) "IsItBlue"

4. 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;
```

What is the result?

- 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 step does not execute
- d) the data set **Sasuser.One** is created with 2 variables and 1 observations

-----STATION 5 - Just for Fun-----

1. If a doctor gives you 3 pills and tells you to take one pill every half hour, how long would it be before all the pills had been taken?

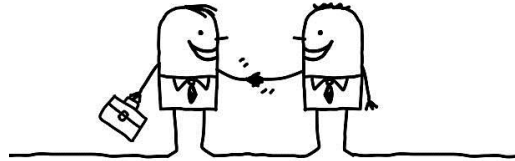
- a) 3 hrs
- b) 1.5 hrs
- c) 1 hr
- d) none of the above

2. Divide 30 by one half and add ten. What do you get?

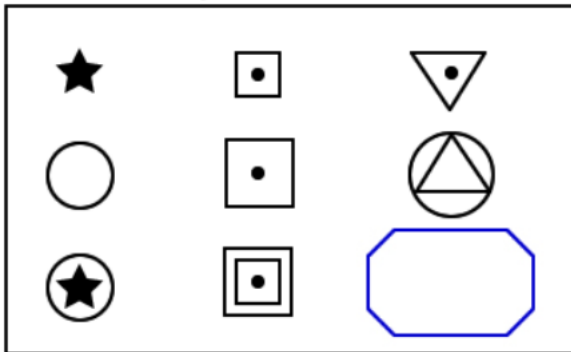
- a) 20
- b) 25
- c) 60
- d) 70

3. At a conference, 12 members shook hands with each other before and after the meeting. How many total number of handshakes occurred?

- a) 100
- b) 132
- c) 145
- d) 144



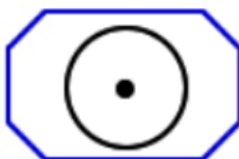
4. Select the item below which would complete the pattern:



a.



b.



c.



d.



-----**STATION 6- What do you know about SAS?**-----

1. **How many tons of M&M's was it estimated that SAS consumed (as at December 7, 2011)?**

- a. 1
- b. 8
- c. 11
- d. 22
- e. 53

2. Match the date=0 value to the correct software

- | | |
|---------------|---------------|
| a. Jan 1 1753 | 1. Excel |
| b. Jan 0 1900 | 2. SQL |
| c. Jan 1 1960 | 3. Javascript |
| d. Jan 1 1970 | 4. SAS |
| e. Jan 1 2000 | 5. Netezza |

3. Which of the following are true or false

- a. SAS stands for: South African Ship - the South African Navy Ship Prefix
- b. SAS stands for: Scandinavian Airlines
- c. SAS stands for: Surfers Against Sewage
- d. SAS is a village in Iran
- e. SAS stands for: Space Activity Suit
- f. SAS stands for: San Antonio Spurs

4. Timeline - match the SAS Canada Events to the dates

- | | |
|--|---------|
| a. SAS Canada expands to the Quebec market | 1. 1993 |
| b. SAS Canada expands into Western | 2. 1988 |
| c. SAS Canada opens its Ottawa office. | 3. 1995 |
| d. SAS Canada celebrates hiring 150th employee | 4. 2013 |
| e. SAS Canada opens the SAS Institute in Toronto, with 2 employees. | 5. 2008 |
| f. SAS celebrates 25 years of business in Canada | 6. 1991 |
| g. SAS Canada, King Street East is recognized Canada's first LEED® | 7. 2000 |
| h. SAS Canada's corporate headquarters opens at 280 King Street East. | 8. 2005 |

Name: _____

Station 1			Station 2			Station 3			Station 4		
Question	Answer		Question	Answer		Question	Answer		Question	Answer	
1	a	<input type="checkbox"/>	1	a	<input type="checkbox"/>	1	a	<input type="checkbox"/>	1	a	<input type="checkbox"/>
	b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>
	c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>
	d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>
2	a	<input type="checkbox"/>	2	a	<input type="checkbox"/>	2	a	<input type="checkbox"/>	2	a	<input type="checkbox"/>
	b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>
	c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>
	d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>
3	a	<input type="checkbox"/>	3	a	<input type="checkbox"/>	3	a	<input type="checkbox"/>	3	a	<input type="checkbox"/>
	b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>
	c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>
	d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>
4	a	<input type="checkbox"/>	4	a	<input type="checkbox"/>	4	a	<input type="checkbox"/>	4	a	<input type="checkbox"/>
	b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>		b	<input type="checkbox"/>
	c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>		c	<input type="checkbox"/>
	d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>		d	<input type="checkbox"/>

Station 5			Station 6		
Question	Answer		Question	Answer	
1	a	<input type="checkbox"/>	1	a	<input type="checkbox"/>
	b	<input type="checkbox"/>		b	<input type="checkbox"/>
	c	<input type="checkbox"/>		c	<input type="checkbox"/>
	d	<input type="checkbox"/>		d	<input type="checkbox"/>
2	a	<input type="checkbox"/>		e	<input type="checkbox"/>
	b	<input type="checkbox"/>	2	a	<input type="checkbox"/>
	c	<input type="checkbox"/>		b	<input type="checkbox"/>
	d	<input type="checkbox"/>		c	<input type="checkbox"/>
3	a	<input type="checkbox"/>		d	<input type="checkbox"/>
	b	<input type="checkbox"/>		e	<input type="checkbox"/>
	c	<input type="checkbox"/>	3	a	<input type="checkbox"/>
	d	<input type="checkbox"/>		b	<input type="checkbox"/>
4	a	<input type="checkbox"/>		c	<input type="checkbox"/>
	b	<input type="checkbox"/>		d	<input type="checkbox"/>
	c	<input type="checkbox"/>		e	<input type="checkbox"/>
	d	<input type="checkbox"/>		f	<input type="checkbox"/>
		<input type="checkbox"/>	4	a	<input type="checkbox"/>
		<input type="checkbox"/>		b	<input type="checkbox"/>
		<input type="checkbox"/>		c	<input type="checkbox"/>
		<input type="checkbox"/>		d	<input type="checkbox"/>
		<input type="checkbox"/>		e	<input type="checkbox"/>
		<input type="checkbox"/>		f	<input type="checkbox"/>
		<input type="checkbox"/>		g	<input type="checkbox"/>
		<input type="checkbox"/>		h	<input type="checkbox"/>