Q1. Indicate all choices below that will print an appropriate title in the LOG after entering %put title is “&Title2”;

a) %let Title1=Quiz 1;

b) %let Title2='Quiz 1';

c) %let Title3="Quiz 1";;

d) %let Title4=%str('Quiz 1');

Q2. . Indicate all choices below that will print an appropriate value in the LOG after entering %put &Hashtag”;

%let Hashtag=@congareenps; #find\_your\_park;

%let Hashtag=%str(@congareenps; #find\_your\_park;);

%let Hashtag=%str(@)congareenps%str(;) %str(#)find\_your\_park;

%let Hashtag=%str(@congareenps; #find\_your\_park);

Q3. The data set COVID lists County, County Code, ZIP Code and COVID infection count for a selection of ZIP codes in SC. The dataset appears below for reference.

| **County** | **CountyCode** | **ZIP** | **Count** |
| --- | --- | --- | --- |
| Richland | FIPS79 | 29229 | 19 |
| Richland | FIPS79 | 29223 | 34 |
| Charleston | FIPS19 | 29412 | 28 |
| Charleston | FIPS19 | 29464 | 42 |
| Kershaw | FIPS55 | 29020 | 74 |
| Kershaw | FIPS55 | 29078 | 23 |

Change the code below to save the query as a view named COVIDMax:

proc sql; select County, CountyCode, max(Count) as CountyMax from COVID group by County, CountyCode; quit;

Q4. Using the view COVIDMax that you created in the previous question, write a query that prints the record for the county with the largest number of cases.

Q5. For the COVID data set, write a macro called MacroRecords with argument County that modifies the query below so that the user can specify the county.  Write the command needed to look at county records for Richland county.

proc sql; select \* from COVID where county="Kershaw"; quit;

Q6. What would be printed to the Results window for this set of questions based on the data set COVID?

proc sort data=COVID out=COVIDsort; by Count;

data COVIDsort; set COVIDsort;

if \_n\_=1 then do;

call symput('lowcounty',County); call symput('lowZIP',ZIP);

end;

run;

title "COVID cases are lowest in ZIPcode &lowZIP in &lowcounty county";

proc print data=COVIDsort; where County="&lowcounty";

run;

Q7. What would be printed in the LOG window by the following commands using the COVIDMax view?  Since %put \_user\_; creates so much output, list only the portion of the output relevant to the question.

data \_null\_;

set COVIDMax;

call symput(CountyCode,strip(County));

run;

%put \_user\_;

Q8.

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| Suppose we create two macro variables:  %let lib=STAT541;  %let month=JAN;  Select the single answer that will create an appropriate file reference. |
| 1. %put data= &lib..&month2019; 2. %put data=&lib.&month.2019; 3. %put data=&lib..&month..2019; 4. %put data=&lib..&month.2019; |

Q9.

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| Suppose we create three macro variables:  %let one=one;  %let four=four;  %let c=%nrstr(&one + &four);  What will be the output from the following command:  %put scan is %scan(&c,1,+) and qscan is %qscan(&c,2,+); |
| a) scan is one and qscan is &four  b) scan is &one and qscan is &four  c) scan is one and qscan is four  d) scan is &one and qscan is four |  |

Q10. The data set Tuition contains the following information on selected higher education institutions in South Carolina:

| **School** | **Affiliation** | **TuitionFees** |
| --- | --- | --- |
| Allen University | HBCU | 13340 |
| Benedict College | HBCU | 8181 |
| Bob Jones University | Private | 19100 |
| The Citadel | Private | 12620 |
| Claflin University | HBCU | 17192 |
| Clemson University | Public | 15558 |
| College of Charleston | Public | 12939 |
| Columbia College | Private | 19890 |

What commands in PROC SQL would you use to created macro variables School1-School8 and TuitionFees1-TuitionFees8 from the data set?