**北美SAS (香港考場) ADVANCED 質素機經 02.01.2016(ddmmyyyy) by mikeleung110**

請留意，這並不是最強的機經，我想說這個世界永遠沒有最強的，只有更好更高質素的機經，我在此希望所有享用及讀過這機經的朋友，希望你們參考之時能再把我這個機經不斷不斷的改善加強，我更加想將這些機經和LEGENDS發揚光大，把分享機經的精神宣揚出去，使得日後使用的朋友在學習上更加事半功倍！

**內容主要有四大部分：**

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**Legends:**

FIB=FILL IN THE BLANKS=填空題

CBSC=CHANGED BUT SAME CONCEPT=題目有變但概念大致相同

CBSA=CHANGED BUT SAME ANSWER=題目有變但相同的答案

CH=CHANGED=題目有變

MDI=MIND THE DISTRUBED ITEMS=小心干擾的項目

ANS=正確答案

1. **變題機經**

|  |  |
| --- | --- |
|  | **變題機經(02.01.2016,ddmmyyyy) by mikeleung110** |
| **Q** | **Details (updated on 02.01.2016, ddmmyyyy<<如要參考使用表格內容或作更改的話，請你標註日期的月份/日子排序，因為國內常用mmddyyyy跟香港的ddmmyyyy不一樣，很混亂，日期的標註真的很重要)** |
|  | **以下是在63題出到的內容，後面沒有說明的就表示一樣的內容沒有變，注意答案的選項位置可能有變化，以下我都盡量精簡說明得非常非常清楚。(讓你們見識一下何謂質素機經，沒有最強的機經，只有更好更高質素的機經！(香港是說質素，反之國內是說素質，真的是給你們玩了))** |
| 2 |  |
| 3 | CBSA: Replace the equal sign with the IN operator |
| 4 | CBSA: into :GROUPS separated by ','  MDI: : into GROUPS separated =',' (冒號在INTO前) |
| 5 |  |
| 9 | CH: 改成只有JONES, 105  ANS: 選沒有GROUP BY 的 |
| 10 | CH: 舊題「9跟5」變「11跟5」  ANS:2 |
| 11 | CH: 答案的句子重組了(只是前後調轉了)  CBSA: When TEMP is used in another SAS step, data set is created (句子重組) |
| 12 |  |
| 14 |  |
| 15 | CH: 加了GROUP BY在CODE裡  ANS:  JONES 100  SMITH 400 |
| 17 |  |
| 19 | 只須非常注意QUOTATION MARK  ANS: where upcase(Name)="%upcase(&Value)";  MDI: where upcase(Name)="upcase(&Value)"; |
| 21 |  |
| 22 |  |
| 23 |  |
| 25 | CH: 「No」和「no」位置互換  ANS:2 |
| 27 |  |
| 28 |  |
| 30 | 只須非常注意QUOTATION MARK  ANS: %put the value is "&product.";  MDI: %put the value is ""&product.""; |
| 31 |  |
| 32 |  |
| 37 | CH: EXCEPT ALL 放入CODE 裡  ANS:  Lauren  Chang  Chang |
| 38 | CH: 「4」和「10」位置互換  ANS: Result is 0 |
| 39 |  |
| 40 |  |
| 41 | CBSA: Mlogic |
| 43 | CH: Output 改成JONES 100  ANS: having avg(Cost) < (select avg(Cost) from WORK.ONE) |
| 44 | ANS: Describe table  MDI: Describe table= (不應有等號) |
| 45 | 原題有考，ANS: 選1,2 (選項次序有變)  再加另一變題：  CH:列出三段不同的CODE  CODE中要選有二個特點：   1. Proc SORT with Nodupkey, and with an option(drop=xxx) 2. By var   MDI:   1. By descending (Because ORDER BY statement is in ascending order, so cannot choose DESC) 2. Nodup 3. IF First.Customer\_ID choice doesn’t sort the data first, so cannot be used   ANS:  Proc sort data=xxx  Out=work.sorted (drop=xxx) nodupkey;  By order\_var;  Run; |
| 46 | CBSC like Q16 & Q37 |
| 47 | 只須非常注意QUOTATION MARK，而這一題是沒有QUOTATION MARK，要搞清楚！  這是一個QUOTATION MARK 都沒有的  ANS: %if &sysday = Thursday %then %do;  MDI1: %if &sysday = "Thursday" %then %do;  MDI2: %if "&sysday" = Thursday %then %do; |
| 48 |  |
| 49 | 注意這個是沒有&的  ANS: %symdel Mv\_Info;  MDI: %symdel &Mv\_Info; |
| 51 | CH: 直接把BY放在CODE裡  ANS: Run successfully |
| 54 | CH: 舊題「NAME1」變「MATH1」；「NAME2」變「MATH2」  CBSA: Clothes |
| 55 | CH: OLD:  Year Qtr Sales Budget  ------------------------------  2001 4 300 500  2001 4 300 400  2002 1 600 .  . . . 350  NEW:  Year Qtr Sales Budget  ------------------------------  2001 4 300 500  2001 4 300 400  . . . 350  ANS:舊題「FULL JOIN」變「LEFT JOIN」 |
| 58 |  |
| 59 |  |
| 60 | CH:舊題「pname=means 和 print」變「pname=print 和means」  ANS:PROC PRINT ONLY |
| 61 |  |
| 62 | CH:舊題「----------->」變「! ! !」；「INSIDE」變「IN」；「OUTSIDE」變「OUT」  CBSA:  ---> **IN** WORK.NEW SASHELP.CLASS  ---> **OUT** &NEWNAME &SETNAME |
| 63 | CH:CODE 直接寫入 var Weight Height %COLS1  ANS:Weight Height Name Age  MDI:Height Weight Name Age |

1. **填空題**

|  |  |
| --- | --- |
| **Q** | **FIB(填空題) Details updated on 02.01.2016(ddmmyyyy) by mikeleung110** |
|  | **Details (updated by 02.01.2016, ddmmyyyy<<如要參考使用表格內容或作更改的話，請你標註日期的月份/日子排序，因為國內常用mmddyyyy跟香港的ddmmyyyy不一樣，很混亂，日期的標註真的很重要)** |
| 1 | ASK: 如何在Log 中輸出global macro variables  ANS: %put\_GLOBAL\_  FIB: \_GLOBAL\_ |
| 2 | ASK: 選出unique value of a grouped variable  Q: If \_ first.model \_\_=1 then output=xxx  FIB: first.model (model 是這個variable 的名字) |
| 3 | ASK: outer union corr  FIB:corr |
| 4 | ASK: A Data has 2000million observations and 300 Character variables  ASK:Compress=YES  FIB:YES  OR 選擇題  A COMPRESS=YES  B COMPRESS=HEX  C COMPRESS=BIN  D COMPRESS=NUM  ANS:A |
| 5 | Given 2 Data Set  ONE  State\_ID state  TWO  State\_ID City  Quit 前的最後一句：  Ask: where s.state= “&selection” (注意一定要加引號)  FIB: “&selection” |
| 6 | HASH object  FIB:HashAlpha |
| 7 | Given 2 Data Set  ONE  Name Year  Joyce 9  John 4  John 2  Jane 6  Thomas 8  TWO  Name Age(不需要理會)  Joyce  John  Thomas  Robert  Jeff  The following SAS program is submitted:  select Name, avg(Year) as average  from WORK.ONE  Except Corr  WORK.TWO  …………..  quit;  ANS: Average of 7  FIB: 7 |
| 8 | 4. FCMP 填空  proc fcmp outlib=sasuser.funcs.trial;  …  endsub;  options \_\_\_\_cmplib\_\_\_\_\_=sasuser.funcs;  data null;  …  run;  FIB: cmplib  OR 變選擇題  A UTLLOC  B LIBREF  C FMTSEARCH  D CMPLIB  ANS: D |

1. **新題庫**

|  |  |
| --- | --- |
|  | **新題庫 updated on 02.01.2016(ddmmyyyy) by mikeleung110** |
| **Q** | **Details (updated on 02.01.2016, ddmmyyyy<<如要參考使用表格內容或作更改的話，請你標註日期的月份/日子排序，因為國內常用mmddyyyy跟香港的ddmmyyyy不一樣，很混亂，日期的標註真的很重要)** |
| 1 | Q:FCMP 填空  proc fcmp outlib=sasuser.funcs.trial;  …  endsub;  options \_\_\_\_cmplib\_\_\_\_\_=sasuser.funcs;  data null;  …  run;  ANS: cmplib |
| 2 | Q:MACRO  %let this\_year=%substr(&sysdate9, 6);  %let next\_year=&this\_year+1;  %let check\_year=%eval(&next\_year<2016);  %put two years after this year is &next\_year+1;  %put check\_year is &check\_year;  Assume system time is 01Jan2013, what is the output?  ANS: Two years after this year is 2013+1+1  check\_year is 1 |
| 3 | Q: KEEP&DROP statement and option Efficiency  A data set has 300,000 observations, 20 character variables, 50 numeric variables. We need 5 character  variables and 7 numeric variables, which one is the most efficient:  A. Drop=option in data step  B. KEEP=option in data step  C. Keep =option in set statement  D. Keep statement  Answer: Keep=option in set statement. With it the system only read the desired variables. |
| 4 | Q:Multi-array  Array multi{1:2, 2}(1,2);  Do i=1 to 2;  Do j=1 to 2;  Output=multi{I,j};  What are the corresponding values of i, j, and output.  Answer:  A 2\*2 multi-array, only two initial values, so the array is following    i j output  1 1 1  1 2 2  2 1 .  2 2 . |
| 5 | Q:Pagesize info  Which of proc can check the pagesize info?  A Proc Contents  B Proc print  C Proc report  D Proc catalog  ANS:A |
| 6 | Q45 变型, 两道 (unique value of a grouped variable)  (i)  Given data sets and SQL code with Select Distinct statement, which one has the same output.  The correct answer is proc SORT with Nodupkey, and with an option(drop=XXX).  Besides, BY variable cannot have the descending option, because in the SQL procedure, ORDER BY  statement is in ascending order. So choose the answer like following:  proc sort data=XXX  out=work.sorted (drop=xxx) nodupkey;  by order\_var;  run;  IF First.Customer\_ID choice doesn’t sort the data first, so cannot be used.  (ii) 填空  car column variables: year, model, color, name etc.  Model column varialbes: Sonata, Elantra, etc.  If first.model =1, then output=…  Note: to create a list of unique variable values from a data set, there aethree methods:   1. proc SORT with Nodupkey and OUT=   2. data set with IF First.Customer\_ID=1, but the data set need to be sorted first with variable Customer\_ID.  3. proc SQL with SELECT DISTINCT statement |
| 7 | Q:Using View  Data finance .newdata/view=finance.newdata;  Infile<fileref>;  <Data step statements>;  run;  Submit the above code and create a data step view, then we need to use this view in the PROC MEANS  procedure, which one to use:  A. Proc Means view=finance.newdata;  B. Proc Means data= finance.newdata/view= finance.newdata;  C. Proc means data finance.newdata/view  D. Proc means data= finance.newdata  Answer: D. proc means data=dataset\_name. The same way as to use a normal data set.  另外View 的考点还有63 题库q.11, q.29 |
| 8 | Q:Data Set MERGE🡨🡪PROC Sql 的FULL JOIN+coalesce  詳情請看最強機經的Q13變型(因為正題含有太多CODE和SAS產生的圖片了，不能盡列) |
| 9 | Q:MACRO  Given data set and macro program, choose missing correct code  A. &Num=California  B. call symputx(‘&Num’, California)  Answer: B |
| 10 | Q: Format search library  Given two format with the same name $Gender, one store in Mylib, and the other in library.  Proc print data=… ; run;  Using the format $Gender. From the desired output, we can tell that the format in Mylib is used.  Options fmtsearch=\_\_\_\_\_\_\_\_\_\_\_\_\_\_; Which statement should be filled in here?  A. no fmsearch needed  B. fmsearch=(mylib, library)  C. fmsearch=(library, mylib)  D. fmsearch=(mylib)  Answer: B. With this option, system first check the work library, then MYLIB, and then LIBRARY.  Note: D is wrong.  Without noting fmsearch options, the default search order is  (1 work.formats 2 library.formats 3 mylib.formats)  If specified as D, then the search order is  (1. Work.formats 2. library.formats 3. mylib)  If specified as B, then the search order is  (1. Work.formats 2. mylib 3.library.formats ) |
| 11 | Q: Horizontal join set operator  (i) right join  Two data sets  Work.One  year sales  2001 800  2001 500  2003 700  Work.Two  year profit  2001 100  2002 200  proc sql;  select sum(profit)  from one right join two  on one.year=two.year;  quit;  What is the output?  A. 100  B. 300  C. 400  D. 500  ANS:C  There are two 2001 year in the left set(Work.one), so the joined data set has three observations for the variable profit: 100, 100, 200  Sum(profit)=400 |
| 12 | Q: idxname  IDXNAME=… (instruct SAS to use a specific index for where processing) |
| 13 | Q: Vertical join set operator  It is about except operator, given two data sets,  Ask about the output. Choose the answer with one  Answer:  Charlie  Omar |
| 14 | Q: nested query and inner join  Given two data sets and SQL code, ask for the output.  Choose the answer with Thomas, Jones, Smith, but no Adam. Besides, there is a descreasing option in the code, so the Sales need to be in decreasing order. |
| 15 | Q:View  哪个个view 的命名code 正确？data xxx/ view=xxx (view 和data set 的命名必须一样) |
| 16 | Q: Efficiency of If-then/Else and Where clauses  A compressed data set has 200,000 observations, 300 variables. We need 20% of character observations,  What method can minimize computer resource usage?  A. If-then/Else clause  B. Case  C. Where  D. …  Answer: WHERE clause is more efficient, since it only read 20% observations as the condition required. |
| 17 | Q: Macro variable with macro trigger signs.  Output title “RECENT A&M ACTIVITY”, which macro definition should be used.  A. title %sysfundc(“RECENT A&M ACTIVITY”)  B. title %str(“RECENT A&M ACTIVITY”);  C. title %nrstr(“RECENT A&M ACTIVITY”);  D. title %bquote(“RECENT A&M ACTIVITY);  Answer: C. %nrstr(…), to mask macro trigger sign &. |
| 18 | Q: Effect on SASFILE for repeating a local data set  Repeated need a local data set, what kind of effect does SASFILE statement has to the Global statement.  A increase Network Bandwidth  B CPU increase  C I/O increase  D memory increase  ANS: D  Answer: Reduce some CPU usage, reduce I/O, increase memory |
| 19 | Q: left join and in-line view  Product  Product\_id Product  1 1001  2 1002  3 1003  Sales  Product\_id Sales  3 100  1 200  5 100  1 200  3 100  1 100  Proc sql;  Select p.product s.totalsales  From product as p  left join (  select sum(sales) as totalsales  from sales as s)  on p.product\_id=s.product\_id;  quit;  What is the output?  Answer:  Product Totalsales  1001 500  1002 .  1003 200 |
| 20 | Q:Work.temp is indexed  A Stops to executes as this is not in ascending order  B Stops to executes as this is not in descending order  C continue to executes without problem  D continue to executes but index=USE  ANS:A(Not Sure) |
| 21 | Q: in-line view  给了一段code 明确告知in-line view 中给定的condition 有  multiply observations satisfied the condition， 问program 运行结果。  答案是运行出错没有结果，因为in-line view return multiple results. |