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

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：

Contents

4. 最強機經(請開第二個PDF做所有的變題大總匯吧、這個才真的是最強)

<u>Legends:</u>
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
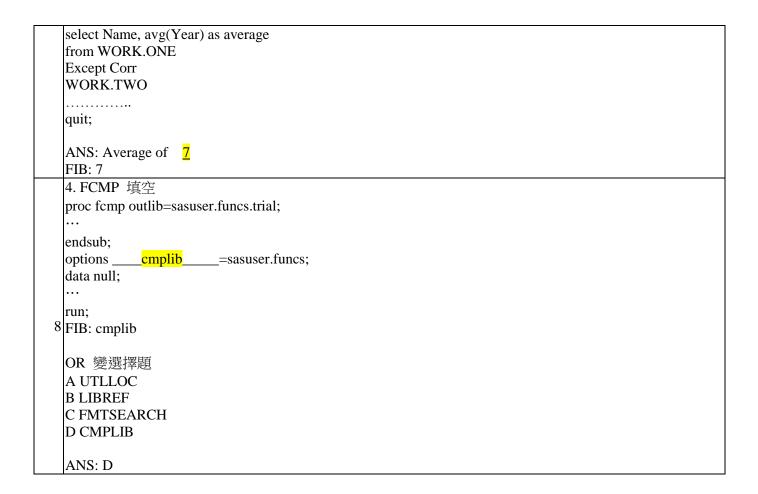MDI=MIND THE DISTRUBED ITEMS=小心干擾的項目
ANS=正確答案

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

2. 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

3. 新題庫

Q	新題庫 updated on 02.01.2016(ddmmyyyy) by mikeleung110
	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 $\begin{pmatrix} 1 & 2 \\ . & . \end{pmatrix}$, that means 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

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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.