



SOLOMON ISLANDS NATIONAL UNIVERSITY

School of Nursing and Allied Health Sciences

Diploma of Public Health (Health Promotion)

**HP 684 – EPI INFO & RESEARCH DATA
MANAGEMENT**

FINAL EXAMINATION

SEMESTER 1, 2017



**SOLOMON ISLANDS NATIONAL UNIVERSITY
SCHOOL OF NURSING & ALLIED HEALTH SCIENCES
DIPLOMA OF PUBLIC HEALTH (HEALTH PROMOTION)**

HP 684 EPI INFO & DATA MANAGEMENT

Semester 1, 2017 FINAL EXAMINATION

TIME ALLOWED : 3 Hrs

DATE : 15th June 2017

STARTING TIME : 02:00pm

STUDENT NAME : _____

STUDENT ID : _____

TEST INSTRUCTIONS:

1. All questions are compulsory, and therefore you must attempt to answer them all.
2. Sections A - C are to be answered in this examination paper. Extra paper will be provided upon request.
3. This examination paper should contain 11 pages in total.
4. Write your full name & student ID in the spaces provided above.
5. This examination 40% of your total assessment.

Section	Marks Allocated
Section A: Multiple Choice Questions	/ 20 Marks
Section B: True or False Questions	/ 15 Marks
Section C: Short & Long Answer Questions	/ 65 Marks
Total Marks	/ 100 Marks

Best of luck

Section A: Multiple Choice Questions.**/20 Marks***Circle the most correct answer for the following questions. Each question is worth 1 Mark;*

1. **Setting up a new database in Epi Info 2000 is done in**
 - a) Make view
 - b) Enter Program
 - c) Analysis Program
 - d) Microsoft Excel
2. **Once you create a _____ you cannot change field names or types in your view.**
 - a) Legal Value
 - b) Data Table
 - c) Survey
 - d) View
3. **The CORRECT steps to apply Order of Field Entry in the Make View window is;**
 - a) Click File>Order of Field Entry (Tab Order).
 - b) Click Edit>Order of Field Entry (Tab Order).
 - c) Click View>Order of Field Entry (Tab Order).
 - d) Click Insert>Order of Field Entry (Tab Order).
4. **What field type would you use to create a prompt for "comment" on your view?**
 - a. Text
 - b. Numeric
 - c. Multiline
 - d. Yes/No
5. **The conditional for a particular related view depends on the number of children in a household. If the answer to the question: Do you have any children?. Is YES, then the related view becomes activated. How will this command be executed by Epi Info?**
 - a) ANYCHILDREN=(+)
 - b) ANYCHILDREN = (+)
 - c) ANYCHILDREN=yes
 - d) ANYCHILDREN = yes
6. **Check Code is used to validate;**
 - a) Data entry and fast data processing
 - b) Data types and analysis
 - c) Data transformation and data entry
 - d) Data collection and fast data processing.
7. **Any variable tagged with an asterisk (*) when applying checks means that;**
 - a) Check Code has not associated with it.
 - b) Check Code has been associated with it.
 - c) Check Code is read only
 - d) Check Code unnecessary
8. **Command used in the program editor for check codes to program a mathematical function such as calculating age from the date of birth is called;**
 - a) Define command
 - b) Dialog command
 - c) Assign command
 - d) If command
9. **Command used in the program editor for check codes that can provide interaction with the data entry personnel from within a program is called;**
 - a) Define command
 - b) Dialog command
 - c) Assign command
 - d) If command
10. **Which Function is used to create an age variable?**
 - a) TXTTONUM
 - b) YEARS
 - c) ROUND
 - d) NUM

- 11. How does the answer "YES" appear in the Program Editor?**
- (+)
 - (-)
 - (.)
 - (=)
- 12. When changing, assigning, or selecting text fields, the value must be enclosed in what?**
- (Parenthesis).
 - "Quotes"
 - *Asterisks*
 - Bracket ()
- 13. To navigate forwards and backwards through the existing collection of records, you can do the following;**
- Use the arrow buttons located in the lower left of your keyboard.
 - Use the arrow buttons located in the lower right of your keyboard.
 - Use the arrow buttons located in the lower left corner of your screen
 - Use the arrow buttons located in the lower right corner of your screen
- 14. To change a numeric variable to a date variable, what function would you use?**
- NUMTODATE.
 - TXTTONUM.
 - TXTTODATE
 - NUMTEXT
- 15. While doing data entry on a view in Epi Info 2000, how are the data of each questionnaire recognized in your database?**
- By records
 - By fields
 - By prompts
 - None of the above.
- 16. Which of the following is CORRECT if you want to go to the next blank record in the Epi Info data entry;**
- Click on the NEW button
 - Right click the NEW button
 - Double click the NEW button
 - All of the above.
- 17. What expression could you enter in the Find feature to locate children who are greater than 6 in age?**
- Age=6
 - Age>6
 - Age<6
 - None of the above
- 18. What command allows you to open a project for analysis?**
- READ.
 - SELECT.
 - LIST.
 - SORT.
- 19. What command would you use to see variables and records in the current data table?**
- SORT.
 - LIST.
 - READ.
 - SELECT
- 20. Which type of graph presents a circular proportional assessment by comparing data elements such as percentages or counts against the sum of the data elements?**
- Line graph
 - Pie graph
 - Bar graph
 - Histogram

Section B: True and False Questions.**/15 Marks***Put a tick (✓) on the correct box correspond to each statement. Each question is worth 1 Mark*

No.	Statements	True	False
1	Only one answer can be checked or selected for checkboxes		
2	More than one answer can be selected for the field type called "OPTION".		
3	View Names cannot have spaces or begin with numbers.		
4	You need to press "control" left click to go inside a related view to add or edit fields inside		
5	Field Names in views are NOT same as Variables in Analyze data program.		
6	Field names can be edited once your data table is set in the Enter data program.		
7	No two field Names can be the same.		
8	If you are entering data and have a required field, you must enter information into that field before proceeding to the next page.		
9	Using the Program Editor, you can create Check Code that will run across pages or records.		
10	You can plot a new graph type from an existing graph using the Customization dialog box.		
11	Check Code can run Before or After values are entered in a variable.		
12	The WRITE command can be used to export a data table to MS Excel.		
13	You can use a Line Graph to determine trends and cyclic variation.		
14	Graphs can be exported for use in other programs, such as Word, PowerPoint, or Epi Report.		
15	In the Check Command window, variables tagged with an X have Check Code associated with them.		

Section C: Short & Long Answer Questions**/65 Marks****Question 1:****[5 Marks]**

Describe what you know about Epi Info software, what the software can rapidly use for, and the advantages.

Question 2:**[5 Marks]**

While doing data entry on a view in Epi-Info, you have entered the data of one particular questionnaire twice. How can you get rid of this problem?

Question 3:

[10 Marks]

What are check codes and its purpose? Give 5 examples of a check code.

Question 4:

[5 marks]

What is a relational database and why do we have related views? Explain using examples and few appropriate steps.

Question 5:**[10 Marks]**

Complete the following table with the best possible variable types:

Prompt	Variable Type	Pattern
Community Health Assessment		
Date		
Household Number		
Age		
Sex		
Marital Status		
In total how many years have you spent in school?		
Highest Education completed		
Do you chew betel nut?		
Interviewers Initials		

Question 6:

[10 Marks]

You have been asked to calculate the appropriate sample size for a study done among the general population in Honiara about their perspective of tobacco smoking in public places. No previous study has been done on this issue and that non probability sampling technique will be used for the study population. Using the Epi Info 7 output below and your knowledge on sample size calculating in Epi Info 7, describe the procedure you will use to determine the actual sample size that can yield significant result. Your answer should provide the actual sample size derive from the table below and how you reach the answer showing your calculation procedure where necessary.

Confidence Level	Cluster Size	Total Sample
80%	164	164
90%	269	269
95%	382	382
97%	468	468
99%	657	657
99.9%	1065	1065
99.99%	1480	1480

Source: Epi Info 7

Question 7:**[10 Marks]**

The table below is taken out from the analysis program of EpiInfo. By studying this table carefully, answer the following questions:

COFFEE	Frequency	Percent	Cum Percent	
Yes	31	41.3%	41.3%	
No	44	58.7%	100.0%	
Total	75	100.0%	100.0%	

95% Conf Limits

Yes 30.1% 53.3%

No 46.7% 69.9%

- a. What does the table represent? **(2 Marks)**
- b. What was the command used to create this table? **(2 Marks)**
- c. What does the horizontal bars in the last column represent? **(3 Marks)**
- d. Interpret Yes 30.1% 53.3% in your own words. **(3 Marks)**

Question 8:**[10 marks]**

The table below is taken from the analysis program of Epi-Info. By studying this table carefully, answer the following question.

CORONARY HEART DISEASE (CHD)			
Catecholamine Level (CAT)	Yes	No	TOTAL
Yes	27	95	122
No	44	443	487
TOTAL	71	538	609

Single Table Analysis

	Point Estimate	95% Confidence Interval	
		Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.8615	1.6878	4.8514 (T)
Odds Ratio (MLE)	2.8554	1.6690	4.8350 (M)
		1.6148	4.9853 (F)
PARAMETERS: Risk-based			
Risk Ratio (RR)	2.4495	1.5837	3.7887 (T)
Risk Difference (RD%)	13.0962	5.3021	20.8903 (T)

(T=Taylor series; C=Cornfield; M=Mid-P; F=Fisher Exact)

STATISTICAL TESTS	Chi-square	1-tailed p	2-tailed p
Chi-square - uncorrected	16.2465		0.0000567826
Chi-square - Mantel-Haenszel	16.2198		0.0000575712
Chi-square - corrected (Yates)	14.9998		0.0001086935
Mid-p exact		0.0000911051	
Fisher exact		0.0001374257	

a. What does the table represent? (2 Marks)

b. What was the command used to create this table? (2 Marks)

c. Interpret the Odds Ratio. (2 Marks)

d. What is the p-value? (2 Marks)

e. Interpret the p-value. (2 Marks)

The End