

Ollscoil na hÉireann, Gaillimh
National University of Ireland, Galway
Semester II Examinations, 2003/2004

GX 2347

Exam Code(s)	4NU4, 4NU5, 4NU6
Exam(s)	Bachelor of Nursing
Module Code(s)	NU418
Module(s)	Research Methods (May 2004)
Paper No.	1
Repeat Paper	
External Examiner(s)	Dr. Chris Dearnley
Internal Examiner(s)	Ms. Kathleen Murphy Ms. Dympna Casey Ms. Adeline Cooney Ms. Gloria Avalos Ms. Maura Dowling Ms. Sinéad Hahessy Ms. Frances Farrelly Mr. Bernard McCarthy Ms. Miriam Brennan

Instructions:

You are expected to answer a total of Three (3) questions
Use a separate answer book for each question.

You are allowed to use a calculator.

Please note you are expected to support your answers by
referring to relevant literature and examples from research
studies where appropriate.

Duration	3
	Hours
No. of Answer books	3

Requirements:

Handout	
MCQ	
Statistical Tables	
Graph Paper	
Log Graph Paper	
Other Material	Calculator

No. of Pages	6
Department(s)	Centre for Nursing Studies

1. Describe the key characteristics of **both** the positivist and interpretivist paradigms. (100%).
2. “The research process is a framework which enables researchers to start with a problem and follow a series of logical stages, to end with an outcome or result” (Hek et al 1996, p.25). Discuss the relevance of each step of the research process when undertaking a research study. (100%).
3. Interviewing and questionnaires are two main types of data collection methods. Discuss **one** of these methods in detail. (100%)
4. (i) Identify **one** qualitative research methodology and describe the following:
 - a) Key characteristics of the chosen methodology (30%)
 - b) Potential of the chosen research methodology for developing nursing/midwifery practice. (20%)

And

 - (ii) Identify **one** quantitative methodology and describe the following:
 - a) Key characteristics of the chosen methodology. (30%)
 - b) Potential of the chosen research methodology for developing nursing/midwifery practice. (20%)
5. In order to proceed with a research project students need to consider and adhere to research ethics. Discuss the key ethical issues you would consider when undertaking a research project. (100%)

P.T.O.

**You are expected to attempt all parts of question A, B, C, D and E.
Record your answers in the answer book.**

6. A i) In a research study primary school children were asked how many times a day they brush their teeth.

What type of data is represented in this question?

- a) Nominal
- b) Ordinal
- c) Categorical
- d) Ratio
- e) Binomial

(5%)

- ii) When a distribution is normally distributed which of the measures of central tendency should you report?

- a) Standard deviation
- b) Mode
- c) Mean
- d) Median
- e) Percentages

(5%)

- B** Descriptive statistics were used to analyse data on units of alcohol consumed per week; the following results were obtained:

Average units of alcohol consumption = 23

Median = 25

Mode = 32

Std. Dev = 24.5

- i) Given the pattern of these results which of the following reports is the most representative of the data distribution

- a) Mean and Standard deviation
- b) Median and Standard deviation
- c) Median
- d) Mean
- e) Mode

(5%)

- ii) The product moment correlation coefficient r

- a) Must lie between 0 and +1
- b) Is 0.5 when there is no relationship
- c) Should use quantitative data
- f) Measures the strength of the means of two variables

(5%)

P.T.O.

- C** Write a brief interpretation of the results from the following table. When writing the interpretation, please include *frequencies and percentages*.

smoking status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	155	49.2	49.7	49.7
	Former	114	36.2	36.5	86.2
	Current smoker	43	13.7	13.8	100.0
	Total	312	99.0	100.0	
Missing	System	3	1.0		
Total		315	100.0		

(15%)

- D** The following data was taken from patients in the cardiology department; the measures correspond to diastolic blood pressure

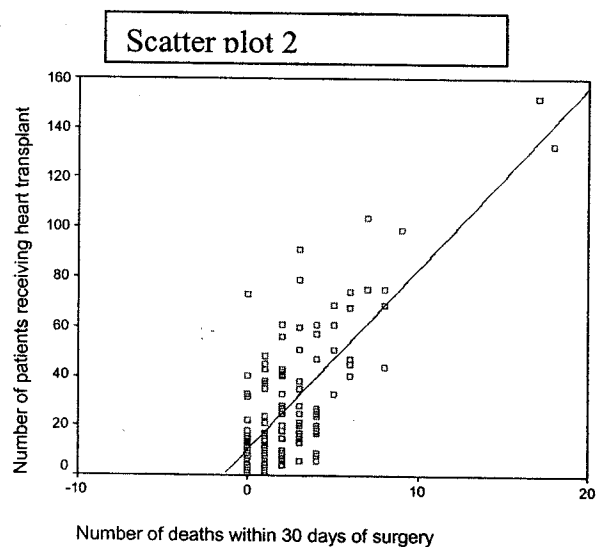
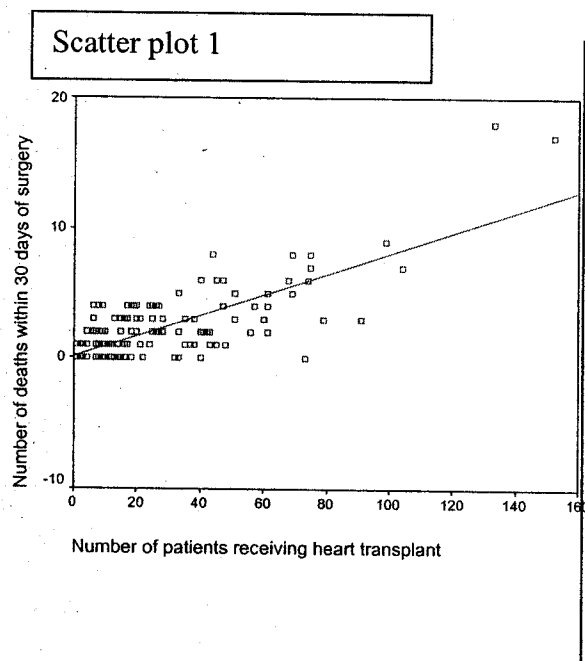
Diastolic blood pressure	80	85	80	90	70	60	90	80	80	100	85	85

- Calculate the mean, median and mode (7%)
- Write the minimum and maximum values (1%)
- With the central tendency results draw a curve and indicate the distribution of the data (7%)

P.T.O.

- E Hospital data was collected from the surgery department to find out if a relationship exists between the number of patients who received a heart transplant and the number of deaths that occurred within 30 days of the surgery.

Please answer the following questions. The results of the analysis are shown below



Questions		
i)	Which scatterplot is correct Scatterplot 1, 2 or both?	8%
ii)	Write the name of the dependent variable Number of deaths or number of patients receiving heart transplant	9%
iii)	Is the scatter plot measuring the strength of the relationship or the direction (+/-)	8%

P.T.O.