

OLLSCOIL NA hÉIREANN
National University of Ireland, Galway

BA in Social and Community Studies.

Summer Examinations 1998.

Exploring Communities

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Time allowed: Two Hours.

Answer THREE questions in all, ONE from Section A, ONE from Section B, and ONE for EITHER section.

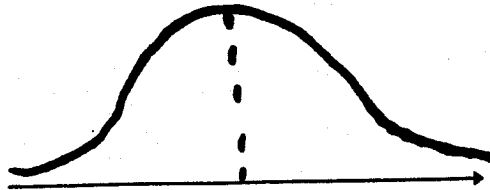
SECTION A

- 1 Outline the main sampling procedures that may be used when deciding which units of the population are to be studied in a research project. Assess the advantages and disadvantages of each.
(100)
- 2(a) Discuss the advantages and limitations of questionnaires as a method of carrying out a sample survey.
(60)
- (b) Outline the rules for constructing questionnaires.
(40)
- 3(a) Describe the steps that must be taken when carrying out a research project.
(60)
- (b) What is ethnography?
Discuss the methods involved.
(40)

P.T.O.

SECTION B

4(a) Identify the graph below and outline it's characteristics.



(b) Give the formulae for the following:

- (i) Standard deviation of a population
- (ii) Standard error of the sample

Suppose a sample of 50 students is taken and their IQ tested. It is known that in Ireland $\mu = 125$ with a standard deviation of 10.

If $\bar{x} = 120$, find the standard deviation of the sample.

(c) If a sample of 30 students got an average of 70 marks in their summer exams, what proportion of students:

- (i) got < 65
- (ii) got > 78
- (iii) got between 68 and 73

5(a) In a court case in which an individual is being tried for theft what are the two types of error?

(20)

(b) During the last 50 years archaeologists have been attempting to classify skulls found in excavations into one of the two racial groups. They have found that the mean length of all skulls found so far from race A is 190mm whereas the mean length of those from race B is 196mm. The standard deviation for both groups is the same at approximately 8mm. A new excavation produced 12 skulls, which there is reason to believe belong to race A. The mean length of these skulls is $\bar{x} = 194$ mm.

Test the hypothesis at the 5% significance level that the skulls belong to race A.

(50)

P.T.O.

- (c) Suppose I pick a sample of 80 items and find that the mean is 85 and the standard deviation is 9.

If I wish to decrease my sampling error to .5 what size sample must I take?

(30)

- 6(a) What does a correlation coefficient measure?

(10)

- (b) Given the following data find r the coefficient of correlation and interpret your answer.

<u>Months</u>	<u>Advertising</u>	<u>Sales</u>
Jan	£10,000	£35m
Feb	£10,000	£43m
Mar	£15,000	£50m
Apr	£ 8,000	£50m
May	£15,000	£63m

(40)

- (c) Using the following equations:

$$EY = na + bEx$$

$$EXY = aEX + EX^2$$

Find the line of best fit for the above data.

(50)