



NATIONAL OPEN UNIVERSITY OF NIGERIA¹²²⁴
UNIVERSITY VILLAGE, NNAMDI AZIKIWE EXPRESS WAY, JABI, ABUJA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF NURSING SCIENCES
2020_2 Examination

PROGRAMME: BACHELOR OF NURSING SCIENCE (BNSc.)
COURSE CODE: NSC409
COURSE TITLE – HEALTH STATISTICS
CREDIT UNITS: 2
TIME ALLOWED: 2 HOURS
TOTAL MARKS: 70%
INSTRUCTION: ANSWER ALL THE QUESTIONS; CALCULATOR IS ALLOWED

Question 1

- (a) Explain four similarities and differences between Biostatistics and health statistics **(8 marks)**
- (b) Discuss three main uses of statistical methods **(6 marks)**
- (c) Describe eight uses of health statistics **(12 marks)**
- (d) Outline four features of ordinal data **(4 marks)**

Question 2

- (a) Describe scale of measurement **(10 marks)**
- (b) The table below is frequency distribution of hair colour by sex of Malathion children in nit lotion study

| Category | Frequency | |
|-------------|-----------|-------|
| | Boys | Girls |
| Hair colour | | |
| Blonde | 4 | 11 |
| Brown | 29 | 20 |
| Red | 1 | 3 |
| Dark | 14 | 13 |

- (bi) What is the percentage of boys and girls with brown hair? Show step by step how you arrive at your answer **(3 marks)**
- (bii) Present the above table in clustered bar chart and gives two reasons for using the chart **(7 marks)**

Question 3

- (a) Explain the common two rules of probability (**4 marks**)
- (b) In a dental clinic 0.67 of their patients has no missing teeth, 0.24 has some missing teeth and 0.09 is edentulous (i.e. has no teeth).
 - (bi) What is the probability that a patient has some teeth? (**2 marks**)
 - (bii) If two unrelated patients are waiting in the clinic, what is the probability that both of them have no missing teeth? (**2 marks**)
- (c) Define the following terms: (i) sensitivity of a test (ii) specificity of a test (iii) Bayes' Theorem (iv) Predictive value of a test (**1.5 mark each**)= **6marks**
- (d) Outline six well-known criteria for assessing causality in observational studies (**6 marks**)