



PROGRAM: NATIONAL DIPLOMA
ENVIRONMENTAL HEALTH

SUBJECT: EPIDEMIOLOGY III

CODE: **GEP 32-1**

DATE: JANUARY SUPPLEMENTARY EXAM
2018

DURATION: 3 HOURS

WEIGHT: 50:50

TOTAL MARKS: 150

EXAMINERS: MR. T.P MBONANE

MODERATORS: MS. S. LANGE

NUMBER OF PAGES: 3 PAGES

INSTRUCTIONS TO STUDENTS:

1. ANSWER ALL THE QUESTIONS.
2. READ YOUR QUESTIONS CAREFULLY. YOU WILL BE PENALISED IF YOUR ANSWERS ARE NOT PROPERLY STRUCTURED AND NUMBERED.

LEAVE SPACE IN BETWEEN THE ANSWERS.

QUESTION 1

Define the following terms

- 1.1 Epidemiology (5)
- 1.2 Population or community health assessment (5)
- 1.3 Demographic (5)
- 1.4 Ethics (3)
- 1.5 Outbreak (3)
- [21]**
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QUESTION 2

- 2.1 Discuss and illustrate the three (3) components of the triad of communicable disease (20)
- 2.2 Discuss characteristics of a population (15)
- 2.3 What are the three (3) types of population pyramids, and briefly discuss these types? (15)
- [50]**
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QUESTION 3

6	8	9	10	5	10	12	13	14
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Calculate the following using the values provided above:

- 3.1 Median (2)
- 3.2 Mean (2)
- 3.3 Mode (2)
- 3.4 Range (2)

- 3.5 Standard deviation (4)
[12]

Table 1 below shows the frequency distribution of male cases and controls by average number of cigarettes smoked per day.

Table 1 Amount of cigarettes smoked daily

Daily number of cigarettes	Number of cases	Number of controls
0	7	61
1 – 14	565	706
15 – 24	445	408
25+	340	182
All smokers	1 350	1 296
Total	1 357	1 357

Compute the odds ratio by category of daily cigarette consumption, comparing each smoking category to non-smokers (12)
[20]

QUESTION 4

- 5.1 Discuss the steps in developing or designing a questionnaire (23)
4.2 What steps will you take to investigate the outbreak? (20)
4.3 What would be your objective for conducting an outbreak investigation? (7)
[34]

Question 5

- 5.1 Discuss the 5 types of bias. (10)
5.2 Describe health-related states or events that affects the well-being of a population (10)
5.3 What are the challenges of implementing the International Classification of Disease (ICD)? (5)
[30]

TOTAL MARKS 150