



<b><u>PROGRAM:</u></b>	NATIONAL DIPLOMA <i>ENVIRONMENTAL HEALTH</i>
<b><u>SUBJECT:</u></b>	EPIDEMIOLOGY III
<b><u>CODE:</u></b>	<b>GEP 32-1</b>
<b><u>DATE:</u></b>	JANUARY SUPPLEMENTARY EXAMINATION 2016
<b><u>DURATION:</u></b>	3 HOURS
<b><u>WEIGHT:</u></b>	50:50
<b><u>TOTAL MARKS:</u></b>	<b>150</b>
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<b><u>EXAMINERS:</u></b>	MR. T.P MBONANE
<b><u>MODERATORS:</u></b>	DR. L. KUONZA
<b><u>NUMBER OF PAGES:</u></b>	4 PAGES,

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**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.

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**QUESTION 1****Briefly discuss the following terms:**

- 1.1 Cohort study (2)
- 1.2 Data analysis (2)
- 1.3 Odds ratio (2)
- 1.4 Fecundity (2)
- 1.5 Pandemic (2)

**[10]**

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**QUESTION 2**

- 2.1 Describe and discuss the term of epidemiology and its use in public health (10)
- 2.2 Discuss the three (3) components of the triad of communicable disease (15)

**[25]**

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**QUESTION 3**

Statistics teaches health officials; how to gather, organize and analyse data and then infer the underlying reality from these data.

- 2.1 Define what demography is (3)
- 2.2 Discuss characteristics of a population (15)
- 2.3 Discuss the three (3) types of population pyramids (15)

**[33]**

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**QUESTION 4**

- 4.1 How would you describe an outbreak? (3)
- 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)
- [30]**
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**QUESTION 5**

- 5.1 Define the following concept of ethics (3)
- 5.2 Discuss the steps in developing or designing a questionnaire (27)
- [30]**
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**QUESTION 6**

6;8;9;10;5;10;12;13;14

Calculate the following using the values provide above:

- 6.1 Median (2)
- 6.2 Mean (2)
- 6.3 Mode (2)
- 6.4 Range (2)
- 6.5 Standard deviation (4)
- [12]**

Table in the following page 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
<b>Total</b>	<b>1 357</b>	<b>1 357</b>

6.6 Compute the odds ratio by category of daily cigarette consumption, comparing each smoking category to non-smokers. (10)

[22]

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**TOTAL MARKS 150**