

**BMI2602**

May/June 2015

**MEDICAL EPIDEMIOLOGY**

Duration 2 Hours

100 Marks

**EXAMINERS**  
FIRST  
SECOND

PROF J DEWAR  
DR S GILDENHUYS

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**Closed book examination**

**This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue.**

This paper consists of 2 pages

**ANSWER FIVE (5) OF THE EIGHT (8) QUESTIONS**

**Students must answer the questions in the examination answer book provided.**

Dear student, take a deep breath, exhale and relax. Now you are ready to start answering the questions. All the best!

<b>QUESTION 1</b>		<b>[20]</b>
Discuss in detail the important questions asked and the steps taken when investigating a disease outbreak		
<b>QUESTION 2</b>		<b>[20]</b>
2 1	Discuss active and passive disease surveillance and its importance	(10)
2 2	Describe the various measures of morbidity including incidence, prevalence and attack rate	(10)
<b>QUESTION 3</b>		<b>[20]</b>
Discuss the importance of this module (BMI2602) within the South African context		
<b>QUESTION 4</b>		<b>[20]</b>
4 1	Explain the consequences of false positive and false negative test results	(10)
4 2	Discuss the validity and reliability of diagnostic tests	(10)
<b>QUESTION 5</b>		<b>[20]</b>
Provide a labeled diagram illustrating the phases in the natural history of disease in a patient. In addition, discuss why quantification of prognosis is important and describe in detail four ways of expressing prognosis		
<b>QUESTION 6</b>		<b>[20]</b>
Describe in detail the phases involved in testing new drugs		
<b>QUESTION 7</b>		<b>[20]</b>
Discuss the role that genetic and environmental factors play in the development of disease		
<b>QUESTION 8</b>		<b>[20]</b>
Using the recent Ebola virus outbreak as an example, discuss the following epidemiological terms		
7 1	Epidemic and endemic diseases	(5)
7 2	Re-emerging and global diseases	(5)
7 3	Statistical measurement of epidemics	(5)
7 4	Nosocomial infections and herd immunity	(5)

TOTAL MARKS 100