

CANDIDATE NUMBER.....

**AFRICA  
UNIVERSITY**  
*A United Methodist-Related Institution**"Investing in Africa's Future"*

**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL  
SCIENCES  
DEPARTMENT OF BIOMEDICAL AND LABORATORY SCIENCES  
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS DEGREE**

**NSLS404: MICROBIOLOGY II****END OF SECOND SEMESTER FINAL EXAMINATIONS****APRIL/MAY 2023****LECTURER: MRS K. ZVINOERA****DURATION: 3 HOURS**

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***INSTRUCTIONS***

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1. Write your candidate number on the space provided on top of each page
  2. Answer **all** questions in sections A on the question paper.
  3. Answer **all** questions in section B on separate answer sheets provided.
  4. Answer any **3** questions in section C on separate answer sheets provided
  5. The mark allocation for each question is indicated at the end of the question
  6. Credit will be given for logical, systematic and neat presentations in sections B and C
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**SECTION A: MULTIPLE CHOICE [40MARKS]**

- Answer all questions by encircling the correct response T for TRUE or F for FALSE for each statement in all the questions
- Each correct response is allocated half mark

1. Which of the following is an example of EQA?

- T     F     (a) Proficiency Testing  
 T     F     (b) Blinded rechecking of slides  
 T     F     (c) Checking the performance of reagents before routine testing  
 T     F     (d) Onsite training and support supervision

2. Which human species does not cause relapse?

- T     F     (a) *P. falciparum*  
 T     F     (b) *P. malariae*  
 T     F     (c) *P. ovale*  
 T     F     (d) *P. vivax*

3. Concerning latent Tuberculosis (TB):

- T     F     (a) Latent TB is symptomatic  
 T     F     (b) Latent TB does not give a positive skin test but TB disease gives a positive skin test  
 T     F     (c) Latent TB is infectious  
 T     F     (d) Latent TB does not require treatment for latent TB

4. Concerning TB disease

- T     F     (a) The patient does not require treatment for latent TB  
 T     F     (b) TB is not curable  
 T     F     (c) Reference method or gold standard is Xpert MTB  
 T     F     (d) The risk of developing TB disease is higher in immunocompromised

5. Which of the following can cause GIT?

- T     F     (a) *Loa loa*  
 T     F     (b) *Nector americanus*  
 T     F     (c) *Teania saginata*  
 T     F     (d) Rotavirus

6. Exposure to a pathogen can result in any of the following

- T     F     (a) No infection  
 T     F     (b) Carrier state  
 T     F     (c) Nonimmunity  
 T     F     (d) Immunity

7. Which of the genus is responsible for transmitting human malaria:

- T     F     (a) *Culex*

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- T      F      (b) Anopheles  
 T      F      (c) Protozoa  
 T      F      (d) Female

8. Write true (T) or false (F) for the following statements

- T      F      a) Attenuated vaccine is the same as inactivated vaccine  
 T      F      b) There are no adverse events following vaccination  
 T      F      c) There is no tetanus vaccine  
 T      F      d) There are no new vaccines produced because there are no new antibiotics

### **SECTION B: [20 MARKS]**

**Answer all questions on separate answer sheets provided**

1. State the World Health Organization strategy in combating fungal infections. [5]
2. State the specimens from which the 13 GLASS pathogens may be isolated. [5]
3. List agent factors that lead to re-emerging diseases.[5]
4. List professions that take part as the rapid response team. [5]

### **SECTION C: [75 marks]**

**Answer any 3 questions from this section on separate answer sheets provided**

1. Describe how malaria disease occurs, including host susceptibility factors and discuss malaria diagnostic test advantages and disadvantages. [25]
2. Describe risk factors for acquiring sexually transmitted infections (STI) common infections of genital tract and prevention of STI. [25]
3. Outline how cholera disease is transmitted and the disease progression. Discuss an example of a cholera treatment camp/unit and describe the requirements for a cholera outbreak to be declared controlled. [25]
4. Discuss parasitic infections, types of parasitic infections, effects of parasites on host and host susceptibility factor. [25]
5. Describe how you would prepare your laboratory Quality Management System in readiness for SADCAS accreditation audit. [25]