



KENYATTA UNIVERSITY

END OF YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE

AND BACHELOR OF SURGERY (MBChB Level II)

HPA I: PATHOLOGY 1 PAPER 1- SHORT ANSWER QUESTIONS (SAQs)

3RD TRIMESTER 2021/2022

TIME: 3 HOURS

INSTRUCTIONS:

Attempt all questions

All questions must be answered on the answer booklet given.

Section A: Short Answer Questions (80 Marks)

1. Complete the table below by stating one example of the pathogen that evades phagocytosis through the use of the stated mechanism. [5 marks]

	Evasion mechanism	Example of pathogen
a)	Inhibition of adherence using M protein or capsule	
b)	Killing phagocytes using leukocidins	
c)	Lysis of phagocytes via membrane attack complex	
d)	Preventing phagosome lysosome fusion	
e)	Surviving in phagolysosome	

2. State the five typical functions of T_H2 cells during a microbial and/parasitic infection. [5 marks]
3. State any five regulatory mechanisms that help minimize complement-mediated pathology. [5 marks]
4. Outline any five gastrointestinal effects associated with tobacco use. [5 marks]
5. Explain five factors affecting vaccine effectiveness. [5 marks]
6. a) State two reasons why allelochemicals are preferred over chemical insecticides in vector control. [2 marks]
- b) State three forms of allelochemicals used in the control of arthropod vectors. [3 marks]

7. State five basis for rejecting a fecal specimen collected for parasitological analysis. [5 marks]
8. State five effects of blocked lymphatic system due to filariasis. [5 marks]
9. State five factors that influence cutaneous wound healing. [5 marks]
10. Explain thrombo-embolism under the following:
 - a) Definition of pulmonary and systemic embolism. [1 mark]
 - b) Common site where both pulmonary and systemic emboli arise. [2 marks]
 - c) Common influence predisposing to thrombi at both sites. [2 marks]
11. State five distinguishing features between Norovirus and Rotavirus. [5 marks]
12. Enumerate five birth defects associated with ZIKA virus infection. [5 marks]
13. Briefly describe the pathogenesis of *Enterohemorrhagic Escherichia coli*. [5 marks]
14. Outline five ways to optimize use of antimicrobials to prevent development of resistance and improve patient outcomes. [5 marks]
15. Classify bacteria on the basis of their shape citing an example for each case. [5 marks]
16. Explain the laboratory diagnosis of candidiasis. [5 marks]

Section B: Long answer question (20 marks)

- 17 a) States the risk factors for Methicillin Resistant *Staphylococcus aureus* (MRSA) infection. [5 marks]
- b) Explain the clinical manifestations of MRSA infection. [10 marks]
- c) State the treatment options available for MRSA infection. [3 marks]
- d) Name two differential diagnoses for MRSA infection. [2 marks]