KENYATTA UNIVERSITY

SUPPLEMENTARY/SPECIAL EXAMINATIONS 2021/2022

EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB LEVEL II)

HPA 1: PATHOLOGY I PAPER I: ESSAY

MARCH, 2022 TIME: 2 HOURS

INSTRUCTIONS:

i. This paper consists of 16 short answer questions in section A and 1 long essay question in section B.

ii. Answer all the questions in both sections in the answer booklet provided.

SECTION A: SHORT ANSWER QUESTIONS

1. State the fate of thrombus and identify the most lethal fate (5 marks)
2. State the characteristics of chronic inflammation (5 marks)
3. Outline five mechanisms of fatty change (5 marks)
4. State any **FIVE (5)** cardinal features of an innate immune response (5 marks)
5. Complete the following table by stating the polarizing and signature cytokines for each of these T helper lymphocyte subsets: (5 marks)

	T helper subset	**Polarizing cytokine**	**Signature cytokine**
(a)	T_{FH}		
(b)	T_H17		
(c)	T_H1		
(d)	T_H2		
(e)	Induced T_{REG}		IL-10

6. Name any five complement receptors and for each state its function (5 marks)
7. a) Name four types of non-Mendelian inheritance patterns and for each give an example. (4 marks)

   b) Define Sherman's paradox (1mark)
8. Outline the mechanisms of hyperacute rejection of grafts (5 marks)
9. Outline the clinical presentation of giardiasis (5 marks)
10. State five interventions in the control of lymphatic filariasis (5 marks)
11. Based on each stage of the life cycle, state five ways by which you can control urinary schistosomiasis (5 marks)
12. Explain the development of *cysticercosis* in humans (5 marks)
13. List five reasons for the emergence and reemergence of zoonotic diseases. (5 marks)
14. a)Enumerate three risk factors for bacterial vaginosis (3 marks)

    b) List two symptoms of bacterial vaginosis (2 marks)
15. State five cultural characteristics of Mycoplasma spp (5 marks)
16. a) Define fungal dimorphism (1 mark)

    b)State four stains used in fungal histology (4 marks)

SECTION B: ESSAY

17. "Investigation of urinary tract infections is common in diagnostic microbiology laboratory".

a. Describe the routes of urinary tract infections and the bacteria commonly associated with each mode of transmission. (6 marks)

b. Describe the pathogenesis of one of the bacteria you have identified in (a) above. (4 marks)

c. Describe the collection, handling, transport, and processing of clinical urine specimen in the microbiology laboratory. (8 marks)

d. Identify the common causes of sterile pyuria. (2 marks)