

2.

2.1. List two (02) major uses of serological tests. (04 marks)

- I.
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- II.
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2.2. Give two (02) examples for serological tests. (02 marks)

- I.
- II.

2.3. List two (02) laboratory diagnostic methods used to detect viruses. (02 marks)

- I.
- II.

2.4. Briefly explain the phrase “minimum inhibitory concentration”. (02 marks)

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Part - C (60 marks)

1.
 - 1.1. State two (02) types of nematodes based on the habitat of the adult worm. (02 marks)
 - 1.2. List three (03) parasites which cause malaria. (03 marks)
 - 1.3. Explain the lifecycle of malaria parasite (*Plasmodium falciparum*). (10 marks)

2.
 - 2.1. State four (04) sources of contamination. (02 marks)
 - 2.2. List three (03) pharmaceutical ingredients that are susceptible to microbial attack. (03 marks)
 - 2.3. Briefly describe how two (02) pharmaceutical excipients mentioned in 2.2 are susceptible to microbial attack. (06 marks)
 - 2.4. State four (04) precautions to be taken to control the microbial contamination in the hospital setting. (04 marks)

3.
 - 3.1. What is batch fermentation? (03 marks)
 - 3.2. State four (04) pharmaceutical products that are manufactured using the fermentation methods. (02 marks)
 - 3.3. Write short notes on
 - a) Isolation of benzylpenicillin using the solvent extraction method. (05 marks)
 - b) antisera (05 marks)

4.
 - 4.1. List three (03) types of Enzyme-Linked Immunosorbent Assay (ELISA) tests. (03 marks)
 - 4.2. Give four (04) methods of sterilization. (02 marks)
 - 4.3. Briefly explain two (02) methods mentioned in 4.2. (04 marks)
 - 4.4. Briefly explain how biological type of indicators is used to monitor completion of sterilization process. (06 marks)