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**CHUKA**



**UNIVERSITY**

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**UNIVERSITY EXAMINATIONS**

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE AWARD OF  
DEGREE OF BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE AND  
TECHNOLOGY**

**BMET 233: MEDICAL HELMINTHOLOGY**

**STREAMS: BSC BIOMEDICAL SCIENCE & TECHNOLOGY Y2S2 TIME: 2 HOURS**

**DAY/DATE: TUESDAY 16/04/2019  
1.30 P.M.**

**11.30 A.M. -**

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**INSTRUCTIONS:**

- **Answer question ONE (COMPULSORY) and any other TWO questions.**
- **Sketch diagrams may be used whenever they may help to illustrate your answer.**
- **Do not write anything on the question paper.**
- **This is a closed book exam. No reference materials are allowed in the examination room.**
- **There will be No use of mobile phones or any other unauthorized materials.**
- **Write your answers legibly and use your time wisely.**

**QUESTION ONE (COMPULSORY) 30 MARKS**

(a) With an aid of a diagram, illustrate the life cycle of the *Dipylidium caninum* (8 marks)

(b) Discuss the effects of helminthic parasites on their hosts. (8 marks)

(c) Briefly discuss the treatment and prevention of taeniasis. (8 marks)

(d) Explain the following terms in medical helminthology. (6 marks)

- (i) Definitive host
- (ii) Obligate parasite
- (iii) Infective stage
- (iv) Hyper infection
- (v) Parathenic vectors
- (vi) Biological host

**QUESTION TWO (20 MARKS)**

(a) With the use of a diagram, illustrate the life cycle of *Oposthorchis viverrini* (8 marks)

(b) Differentiate the following terms as applied in medical helminthology. (6 marks)

- (i) Biological vectors and mechanical vectors
  - (ii) Commensalism and parasitism
  - (iii) Autoinfection and retro infection
- (c) Classify the medical importance parasites according to their pathogenicity and give an example in each case. (6 marks)

**QUESTION THREE (20 MARKS)**

- (a) Using a suitable diagram, illustrate the life cycle of the organism responsible for causing paragonimiasis in human being. (8 marks)
- (b) Detail the common symptoms associated with *Enterobius vermicularis* infection. (6 marks)
- (c) Explain the disease transmission of *Ascaris lumbricoides*. (6 marks)

**QUESTION FOUR (20 MARKS)**

- (a) *Strongyloides stercoralis* is a common intestinal helminth associated with anaemia in endemic countries. Illustrate the life cycle of the *Strongyloides stercoralis*. (8 marks)
- (b) Briefly explain the laboratory diagnosis of *Diphyllobothrium latum*. (6 marks)

- (c) Describe any major ways in which helminthes can circumvent destruction by host immune system.  
(6 marks)
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