

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2010/2011 FIRST SEMESTER EXAMINATION
ZLY 310: PRINCIPLES OF PARASITOLOGY

Answer question ONE and any two others

Time: 2hrs 20 mins

1. (a) The table below shows the result of a survey on *A.lumbricoides* infection in a village in 2009;

Group	Age range	Number examined	Result
A	8 – 10	30 boys and 20 girls	10 negative boys and 15 positive girls
B	11 – 13	120 boys and 30 girls	80 positive boys and 20 negative girls
C	14 – 16	50 boys and 50 girls	25 boys and 25 girls all positive
D	17 – 19	100 boys and 300 girls	50 boys and 120 girls all negative
E	20 – 22	70 boys and 130 girls	40 positive boys and 100 negative girls

- (i) Calculate the total number of individuals examined
(ii) Calculate the prevalence of infection for each age group
(iii) Calculate the total prevalence of infection in the village
- (b) In a population of 5000 children examined for *P. falciparum* infection in year 2004, 3,500 children were infected. A further study carried out in year 2005 on the previously negative population showed that only 700 remained negative. What is the incidence of infection in the village between 2004 and 2005?
- (c) As a parasitologist, state five precautions to take in diagnosing any parasitic infection. (30 Marks)
2. Discuss the life cycle of the causative agent of malaria and explain four factors of epidemiological importance in its life cycle. (20 Marks)
3. (a) Explain briefly, five effects of parasitic infection on infected hosts
(b) State five factors that can determine the severity of parasitic infection (20 Marks)
4. (a) Discuss briefly, six portals of parasitic entry into different hosts
(b) Explain briefly, the event that led to the association termed 'parasitism'
(c) State two ways by which parasites can be controlled in tropical Africa. (20 Marks)
5. (a) List only the five classes of the Phylum Platyhelminthes
(b) Give and an account of the variations in the body form and structure among digeneans. (20 Marks)