JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY UNIVERSITY EXAMINATIONS 2012/2013

3RD YEAR 1ST SEMESTER EXAMINATION IN BACHELOR OF SCIENCE, COMMUNITY & PUBLIC HEALTH DEVELOPMENT

(KISUMU)

COURSE CODE: HCD 3316

COURSE TITLE: MEDICAL AND VETERINARY PARASITOLOGY

DATE: 21/8/13 **TIME: 11.00 -1 .00PM**

DURRATION: 2 HOURS

INSTRUCTIONS

1. **This paper contains five (5) questions.**
2. **Answer question 1 (compulsory) and ANY other TWO questions.**
3. **Write all answer in the booklet provided.**

Section A 30 Marks

1. With examples, define the following terms
   a) Opportunistic parasites
   b) Parasitoid
   c) Zoonosis (**3 marks**).

2. The genus *Eimeria* consists of common parasites of domestic and wild animals. Give the name of the disease condition that is caused by this parasite in domestic animals. List the names of the specific species that causes the above disease conditions in, Calves, and Poultry. (**3 Marks**).

3. Some pathogenic protozoa form cysts under certain environmental condition while others persist in trophozoite form. List three advantages of protozoan cyst over trophozoite stages (**3 marks**).

4. Protozoa parasites in the phylum Apicomlexa have complex life cycles that involve two hosts. One of the zoonotic parasites from this group occasionally causes Babesiosis in humans. Name the parasite, the vector and the treatment for babesiosis (**3marks**).

5. Describe the causal agent of Diphyllobothriasis in man. State the mode of transmission and the reservoir of the etiological agents of Diphyllobothriasis (**3 marks**).

6. *Echinococcus granulosus* is a zoonosis parasite that is occasionally transmitted to humans and causes Hydatidosis or Hydatid disease. What are the **definitive** and **intermediate** hosts of *Echinococcus*. State the mode of transmission for this parasite (**3 marks**).

7. Define sarcocystis. Name at least one definitive and one intermediate host for this parasite. Give the name of at least one species of Sarcocystis and its animal host (**3 Marks**).

8. Describe morphological differences that are used to differentiate the eggs/ovas of *Schistosoma mansoni* from *S.haematobium* and *S.japonicum (***3 marks**).

9. List the alternative hosts of the following parasitic worms:
   a) *Fasciola hepatica*
   b) *Fasciolopsis buski*
   c) *Schistosoma intercalatum* (**3 marks**).

10. Define Trichinellosis: State the hosts and mode of transmission for Trichinellosis (**3marks**).

SECTION 2. ANSWER ANY TWO QUESTIONS (**40 marks**)

1. Protozoa are a diverse group of single celled Eukaryotic organisms some of which are parasites of animals including humans. Discus the diagnostic features that are used to differentiate the following infections in humans:
   a) Babesiosis and Malaria (**10 marks**).
   b) Toxoplasmosis and Cryptosporidiosis (**10 marks**).

2. The phylum Euglenozoa contains important parasites of man and livestock in the genus *Trypanosoma.* Describe the three form of trypanosomiasis that are found in both animals and humans. State the mode of transmission, diagnosis, epidemiology and treatment (**20 marks**).

3. Describe any two parasitic worms that are found in the phylum Platyhelminths in the class Cestoda. State their host range, pathogenesis, and mode of infection, treatment, and prevention (**20 marks**).

4. Discus the advantage and disadvantages of the following form of host/ parasite relationship
   a) Endosymbiosis and Ectosymbiosis (**5 marks**)
   b) Mutualism and commensalism (**5 marks**)
   c) Intracellular parasitism and parasitoidism (**5 marks**)
   d) Ectoparasitism and endoparasitism (**5 marks**)