

UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

DIPLOMA IN ENVIRONMENTAL HEALTH

FINAL EXAMINATION PAPER 2007

TITLE OF PAPER : MEAT PATHOLOGY & SAFETY

COURSE CODE : EHS 201

DURATION : 3 HOURS

MARKS : 100

INSTRUCTIONS : ANSWER ONLY FIVE QUESTIONS

: QUESTION ONE IS COMPULSORY

: EACH QUESTION CARRY 20 MARKS.

: NO PAPER SHOULD BE BROUGHT INTO NOR
OUT OF THE EXAMINATION ROOM.

: BEGIN EACH QUESTION ON A SEPARATE
SHEET OF PAPER.

**DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS
GRANTED BY THE INVIGILATOR.**

35

Question 1
Multiple Choice Questions
(Choose the Best Answer)

1. Cattle suffering from Red water fever will show the following symptoms;
 - A. Fever, anaemia, jaundice & haemoglobinuria
 - B. Fever, anaemia, jaundice & constipation
 - C. Rapid rise in temperature followed by laboured respiration. Then nervous signs such as continual movement of the limbs, head, ears, tongue and jaw, circling movement.
 - D. Fever, anaemia, jaundice & pain during urination
 - E. Fever, anaemia, jaundice & distention of gallbladder

2. Sheep and goat suffering from Heart water or Black lung will show the following symptoms.
 - A. Fever, anaemia, jaundice & haemoglobinuria.
 - B. Fever, anaemia, jaundice & constipation
 - C. Rapid rise in temperature followed by laboured respiration, then nervous signs such as continual movement of the limbs, head, ears, tongue and jaw, circling movement.
 - D. Fever, anaemia, jaundice and pain during urination.
 - E. Fever, anaemia, jaundice and distention of gallbladder.

3. Which parasite causes fascioliasis in cattle livers;
 - A. *Stilesia hepatica*
 - B. *Fasciola hepatica*
 - C. *Fasciola gigantica*
 - D. *Fasciolopsis buski*
 - E. *Paramphistomum cervi*

4. During ante-mortem examination of sheep, you observe a muco-purulent nasal discharge. What may be the likely cause?
 - A. *Calliphora* spp.
 - B. *Malophagus ovinus*
 - C. *Lucilia sericata*
 - D. *Oestrus ovis*
 - E. *Gastrophilus* spp.

5. In your routine ante-mortem inspection the following symptoms are seen; foul smelling faeces that contain bubbles of gas. What would be the likely cause?
 - A. Salmonellosis
 - B. Rinderpest
 - C. Johne's disease
 - D. Bovine tuberculosis
 - E. A,B and C

6. You perform a routine ante-mortem inspection in pigs, the following symptoms are seen; decoloration of skin. What would be the likely cause?
- A. Pig paratyphoid
 - B. Swine erysipelas
 - C. Swine fever
 - D. African swine fever
 - E. A, B and C
7. In sheep, a swollen lower jaw is indicative of;
- A. Liver flukes
 - B. Conical flukes
 - C. Actinomycosis
 - D. Actinobacillosis
 - E. Cysticercus bovis
8. In pigs, chronic arthritis(swollen joints) will be indicative of;
- A. Swine fever
 - B. Swine erysipelas
 - C. African swine fever
 - D. Pig paratyphoid
 - E. Bovine tuberculosis
9. Which one of these tapeworms resides in the intestines of cattle?
- A. *Taenia saginata*
 - B. *Taenia solium*
 - C. *Diphyllobotrium latum*
 - D. *Moniezia benedeni*
 - E. *Stilesia hepatica*
10. In cattle, the percentage or ratio of fertile cysts is;
- A. 10%
 - B. 90%
 - C. 92%
 - D. 8%
 - E. 20%
11. In sheep, the percentage or ratio of fertile hydatid cysts is;
- A. 10%
 - B. 90%
 - C. 92%
 - D. 8%
 - E. 20%

12. The cystic or larval stage in *Taenia serialis* is found in;
A. Sheep
B. Dog
C. Cattle
D. Rabbits
E. A, and C
13. Coccidiosis in cattle is caused by;
A. *Coccidia bovis*
B. *Eimeria scabra*
C. *Eimeria perforans*
D. *Eimeria stiedae*
E. *Eimeria zurnii*
14. Coccidiosis in pigs is caused by;
A. *Coccidia porcine*
B. *Eimeria scabra*
C. *Eimeria perforans*
D. *Eimeria stiedae*
E. *Eimeria zurnii*
15. Toxoplasmosis is caused by;
A. *Toxoplasma gondii*
B. *Eimeria scabra*
C. *Eimeria perforans*
D. *Eimeria stiedae*
E. *Eimeria zurnii*
16. Human fascioliasis is due to;
A. Eating a liver infested with liver flukes
B. Eating uncooked green leafy salads or grass infested with liver flukes.
C. Eating uncooked green leafy salads infested with liver fluke cercaria or larvae.
D. Eating uncooked green leafy salads infested with liver fluke eggs
E. Eating a liver infested with cercaria or larvae.
17. Which parasitic worm causes residual lesions or necrosis or fibrosis in the liver (milk spots)
A. *Ascaris suum*
B. *Fasciola hepatica*
C. *Fasciola gigantica*
D. *Decrocoelium dendriticum*
E. *Onchocerca gutturosa*

18. Which larval stage in *diphylobothrium latum* is infective in human?
A. Coracidium larvae
B. Cysticercus larvae
C. Miracidium larvae
D. Plerocercoid larvae
E. Proceroid larvae
19. Which of these symptoms is not associated with human fascioliasis?
A. Intestinal ulcers
B. Enlargement of liver
C. Abnormal function of the liver
D. Obstructive jaundice or biliary colic
E. Liver pain
20. Myiasis is the presence of larval worms in meat or wound and is caused by;
A. Warble flies
B. *Oestrus ovis*
C. Mites
D. Ticks
E. Blowflies

[20 Marks]

Question 2

- a) Malkerns poultry abattoir has bought 2000 birds from Mpumalanga province. The birds are detained for two weeks before slaughter. On the day of ante-mortem inspection at least 500 birds are found dead. One experienced abattoir worker suspect Newcastle. Outline the ante-mortem and post-mortem signs of Newcastle. [10Marks]
- b) Discuss the methodology you would apply in the control of Newcastle disease. [10 Marks]

Question 3

- a) During sheep meat examination, you find a daughter hydatid cyst in the first lobe of the lung. What will be your judgment? [2 Marks]
- b) Outline practical measures for the control of human hydatid cysts. [5 Marks]

- c) Briefly outline the routine post-mortem examination of cattle in the case of "Beef measles." [10 Marks]
- d) How does 1-tick host transmit tick-borne infections? [2 Marks]

Question 4

- a) Outline the ante-mortem signs that are indicative of Anthrax in cattle. [3 Marks]
- b) How would you control brucellosis in human? [3 Marks]
- c) Write short notes on the causative agent of tuberculosis. [5]
- d) Show the man susceptibility to the different types of tuberculosis causative agents. [3]
- e) Outline the strategy required in the control of human tuberculosis [6 Marks]

Question 5

- a) A high number of cattle livers are rejected for human consumption due to liver flukes infestation. How would you assist the cattle farmers in tackling this problem? [5 Marks]
- b) What measures can be taken to control Taeniasis disease in the human population? [5 Marks]
- c) How is man infected with Toxoplasmosis diseases? [2 Marks]
- d) Why is shellfish prone to food borne infections? [3 Marks]
- e) How do human contract fascioliasis? [3 Marks]