



**UNIVERSITY OF SWAZILAND**  
**Faculty of Health Sciences**

**DEGREE IN ENVIRONMENTAL HEALTH**  
**RE-SIT EXAMINATION PAPER 2018**

- TITLE OF PAPER** : MEAT HYGIENE
- COURSE CODE** : EHS 228
- DURATION** : 2 HOURS
- MARKS** : 100
- INSTRUCTIONS** :
- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
  - : ANSWER ALL FOUR (4) QUESTIONS
  - : EACH QUESTION CARRIES 25 MARKS.
  - : NO PAPER SHOULD BE BROUGHT INTO THE EXAMINATION ROOM.
  - : WRITE NEATLY & CLEARLY
  - : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

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

**Question 1**

- a) What are haemal lymph nodes? [4]
- b) How do you ensure that the animal before slaughter has adequate glycogen reserves? [3]
- c) Why is sufficient glycogen in the muscles of an animal before slaughter important? [3]
- d) How would you estimate the age of cattle by using the appearance incisors teeth? [4]
- e) How does diet influence the color of fat in food animals? [5]
- f) When you slaughter a whale fish in water, the fat drains out. Why is that? [2]
- g) Using good examples, explain why marbled meat smells and taste good? [4]

**[25 Marks]**

**Question 2**

- a) How is haemoglobin different from myoglobin? [4]
- b) During the slaughtering of cattle in the abattoir, how is the knife and equipment sterilized? [2]
- c) What do you understand by endomysium, perimysium and epimysium in the muscle formation in meat? [6]
- d) Animals before the slaughtering process should not be stressed. Explain this. [5]
- e) Describe the process of and food absorption in the small intestines. [8]

**[25 Marks]**

**Question 3**

- a) Why is it necessary to stun food animals prior to their slaughter? [4]
- b) Why is the fat of pigs softer than that of sheep or goat? [4]
- c) Name and locate all the salivary glands in cattle. [6]
- d) Explain why cattle are seen chewing when resting during the day. [4]
- e) Why starving cattle would accumulate fat in the liver? [5]
- f) In ruminants which stomach is known as the 'bible'? [2]

**[25 Marks]**

**Question 4**

- a). Abattoirs are considered to be very important in meat hygiene. Explain this. [15]
- b) Explain the measures that are required to ensure that meat after slaughter is kept safe and does not spoilage quickly. [10]

**[25 Marks]**