



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES
DEPARTMENT OF HEALTH SCIENCES**

QUALIFICATION : BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES	
QUALIFICATION CODE: 08BOHS	LEVEL: 7
COURSE CODE: FMH 711S	COURSE NAME: FOOD AND MEAT HYGIENE 3
SESSION: July 2022	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 120

SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION	
EXAMINER(S)	MS. CHARMAIN JANSEN
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INSTRUCTIONS
1. Answer ALL the questions.

PERMISSIBLE MATERIALS: NONE

THIS QUESTION PAPER CONSISTS OF 5 PAGES INCLUDING THE COVER PAGE

SECTION A [40 MARKS]

QUESTION 1 (10 MARKS)

1.0 Choose the most appropriate alternative for each of the following:

1.1 Carcass is conditionally approved for human consumption if it is affected with: [1]

- A. Actinomycosis
- B. Foot and Mouth Disease
- C. Rabies
- D. Light infestation with *C. bovis*
- E. TB

1.2 One of the following could not be detected during ante mortem inspection: [1]

- A. Cysticercosis.
- B. None of the above
- C. Blackleg.
- D. Actinomycosis.
- E. Actinobacillosis

1.3 In an abscess one can find the following: [1]

- A. *Clostridium Tetani* and *Salmonella spp.*
- B. *Shigella Dysenteriae* and *Clostridium Perfringens*
- C. *Corynebacterium* and *Pseudomonas spp.*
- D. *E Coli* and *staphylococcus spp.*
- E. *Clostridium Botulinum* and *Bacilli cereus spp*

1.4 What is the condition characterized by low red blood cells counts calls? [1]

- A. Bleeding
- B. Anaemia
- C. Ebola
- D. Diarrhoea
- E. None of the above

1.5 The pigsty should be meters away from a dairy. [1]

- A. 1 meter
- B. 100 meter
- C. 10 mm
- D. 10 meter
- E. 50 meter

1.6 White spots resulted from migration of larvae of: [1]

- A. *Ascaris Zuum* larvae in the liver of pig.
- B. Hydatid cyst in a liver of a dog)
- C. *Stilechia hepatica* in ovine liver.
- D. *Fasciola* in bovine liver.
- E. None of the above

- 1.7 Which of the following would help to prevent Cross-Contamination? [1]
- A. Wear suitable hats in the food preparation area
 - B. Keep all meat stored together at the correct temperature
 - C. Use wooden chopping boards
 - D. Separate areas for raw and cooked meat
 - E. None of the above

- 1.8 Which of the following foods is most associated with E Coli 0157? [1]
- A. Raw beef mince
 - B. Salad Dressing
 - C. Pasteurized Milk
 - D. Cooked Carrots
 - E. Raw chicken

- 1.9 A disease of cattle on post-mortem characterized by the development of fibrous tissue which causes enlargement and hardening of tongue: [1]
- A. Cattle plague.
 - B. Actinobacillosis.
 - C. Cysticercosis
 - D. Actinomycosis
 - E. Foot and Mouth Disease

- 1.10 What is the ideal temperature for Pathogens to flourish? [1]
- A. 37 degrees.
 - B. 55 degrees
 - C. 10 degrees
 - D. 90 degrees
 - E. 110 degrees

QUESTION 2 (10 MARKS)

2.0 Indicate which statement is true or false.

- 2.1 Swine flu is one of the Notifiable diseases among pigs worldwide. [1]
- 2.2 Water used for washing the hands can be also used to wash the knives used for inspection of meat. [1]
- 2.3 For a calf, the minimum time allowed for bleeding is five minutes, and the amount of Blood is 13-15 liters of blood. [1]
- 2.4 Valvular pericarditis requires total condemnation of a carcass. [1]
- 2.5 Free projectile means shooting the animal with a firearm. [1]
- 2.6 According to the requirements for the surface of an abattoir the interior wall should be smooth, tiled for at least. 3 metres. [1]

- 2.7 Icterus is also referred to as jaundice. [1]
- 2.8 Calcification of the brisket occurs after degeneration of the fat due to pressure.
This is common in pigs because they like to lie down. [1]
- 2.9 Flatworms in the intestines of the pig are called Taenia saginata [1]
- 2.10 Although a zebra has a natural resistance to FMD it could be artificially infected and acts as a carrier. [1]

QUESTION 3 (10 MARKS)

- 3.0 Give one word for the inflammation of the following parts in a bovine carcass:
- 3.1 Heart [1]
- 3.2 Peritoneum [1]
- 3.3 Pleura [1]
- 3.4 Skin [1]
- 3.5 Eyes [1]
- 3.6 Lungs [1]
- 3.7 Reticulum [1]
- 3.8 Lymph nodes [1]
- 3.9 Endometrium [1]
- 3.10 Abomasums [1]

QUESTION 4 (10 MARKS)

4.0 Match Column A with Column B . [10 MARKS]

COLUMN A		COLUMN B
4.1	A Nematodes, Roundworms <i>Ascaris suum</i> .	A Trematodes <i>Fasciola hepatica</i>
4.2	Usually common with post-calving females especially dairy cows.	B. The food safety system is in place at the abattoirs.
4.3	The parasites cause marked irritation and hardening of the bile ducts	C Anthrax is a notifiable zoonotic disease
4.4	Burn the carcass of the dead animal or bury it in lime to a depth of 1.5 m.	D.Rabies diagnoses
4.5	HACCP	E.The cystic stage called hydatid cyst
4.6	Hyperaemia	F Gangrene or septicaemia
4.7	Disinfect the abattoir	G <i>Silesia hepatica</i>
4.8	<i>Echinococcus granulose</i>	H Causes pneumonia in the lungs
4.9	These Cestodes/ Tapeworms can be removed from the bile ducts with suction.	I. Excessive blood supply to any part or organ.
4.10	Green carcass	J.Parturient paresis (milk fever)

SECTION B [40 MARKS]

QUESTION 5 (10 MARKS)

5.0 Mention the common lymph nodes that a meat inspector must know. [10]

QUESTION 6 (30 MARKS)

6.1 Explain to the meat inspectors what measles is and how to treat it and the danger of it. [15]

6.2 Table the differences between the following:

A. TB and Pneumonia [5]

B. Blood splashing and Melanosis [5]

C. Rigor mortis and arthritis [5]

SECTION C [40 MARKS]

QUESTION 7 (20 MARKS)

7.0 Differentiate between Actinomycosis and Actinobaccollosis. [20]

QUESTION 8 (20 MARKS)

8.0 Explain in detail the requirements for a small-scale abattoir to the owner of Farm X. [20]

GOOD LUCK