



Technical University of Mombasa
Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL
LABORATORY SCIENCES

AML 4231: LABORATORY ANIMAL SCIENCE

SPECIAL/SUPPLEMENTARY EXAMINATION

FEBRUARY 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections **A** and **B**

Section A –Contains MCQS, any wrong response will be penalised. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. A sperm may be genetically described as:
 - a) Diploid
 - b) Haphoid
 - c) Triphoid
 - d) Tetraphoid

2. Hybrids are sometimes refered or described as
 - a) Homozygous
 - b) Heterozygous
 - c) Dominant
 - d) Recessive

3. In mice, agouti is _____ to albino
 - a) Dominant
 - b) Recessive
 - c) Co-dominant
 - d) Over-dominant

4. Identify a routine laboratory mammal
 - a) Ferret
 - b) Bovine
 - c) Caprine
 - d) Ovis

5. Which one is a non-ciminea pig variety
 - a) English type
 - b) Abyssinian type
 - c) Peninsular type
 - d) Syrian golden

6. One is NOT a laboratory primate, which one is it?
 - a) Macaca
 - b) Pan
 - c) Cebus
 - d) Prosimians

7. Identify the most commonly used laboratory mammal
 - a) Hamster
 - b) Rat
 - c) Mice
 - d) Monkey

8. One is a laboratory structures, identify it
- a) Pens
 - b) Perches
 - c) Dips
 - d) Crash
9. Which is the major aim of keeping animals in the laboratory
- a) Production
 - b) Recreational
 - c) Experimental
 - d) Transport
10. Which one is NOT an animal accommodation facility
- a) Terrania
 - b) Aquanium
 - c) Cages
 - d) Paper boxes
11. Which one is considered as a 'dirty area' in an animal facility
- a) Animal room
 - b) Stone
 - c) Locker room
 - d) Corridors
12. One of the following is part of an animal cage, which one is it
- a) Water pans
 - b) Water dishes
 - c) Water bottles
 - d) Water pipes / tubes

13. Which one is an accommodation method applied in laboratory animals

- a) Circular
- b) Tethering
- c) Non-conventional
- d) Barrier –maintained

14. Which identification method is suitable for laboratory rabbits

- a) Sharing
- b) Filling
- c) Notching
- d) Tagging

15. Identify a hazard in a animal house

- a) Electrical hazards
- b) Water hazards
- c) Oxygen hazards
- d) Feed hazards

16. How many categories of laboratory animals exist currently

- a) Two
- b) Six
- c) Five
- d) Eight

17. The following are aquarium tanks, which one is NOT

- a) Plastic tank
- b) Whole glass tank
- c) Paper glass tank
- d) Metal angle-iron

18. Identify the ODD one out

- a) Aquatic terrarium
- b) Woodland terrarium
- c) Bog terrarium
- d) Desert terrarium

19. Which clip-color coding means “Disease suspected in litter or adults, curing decision required”

- a) Green
- b) Yellow
- c) Red
- d) Blue

20. Which is not necessary on a cage record card

- a) Identification of the animal
- b) Stain of the animal
- c) Breeding data of the animal
- d) Research’s age

21. One is NOT a requirement for animal transportation containers, which is it?

- a) Crush proof
- b) Insulating properties
- c) Internal lining
- d) Higher density

22. Instruments are kept in animal houses, except?
- a) Thermometers
 - b) Hygrometers
 - c) Weighing machines
 - d) Rain gange
23. One is a vector parasitic infections in laboratory animals which is it ?
- a) Plasmodium
 - b) Glossina
 - c) Taemia
 - d) Trypanosoma
24. Identify a viral disease affecting laboratory animals
- a) Coccidiosis
 - b) Babesiosis
 - c) Rubella
 - d) Leptospirosis
25. Which one is NOT an indicator of ill-health in laboratory animals
- a) Bleeding and discharges
 - b) Vaginal clear mucoid discharge
 - c) Photophobia
 - d) Dyspnea
26. Identify a notifiable disease in laboratory animals
- a) Fowl pest
 - b) Trypanosomiasis
 - c) Malaria
 - d) Filaniasis

27. In which form is excess carbohydrate stored in the body

- a) Starch
- b) Glucose
- c) Glycogen
- d) Fats and oils

28. Which one is a route for anesthetic administration

- a) Rectuminal
- b) Vaginal / Pericles
- c) Skin surface
- d) Orally

29. Identify a “modern breeding technology”

- a) Gene mutation
- b) Gene transcription
- c) Genecloning
- d) Gene duplication

30. Which one consists of nicotinic acid (Vit. B₅) sources

- a) Yeast, milk, liver
- b) Yeast, Milk, vegetables
- c) Yeast, Vegetables, heart
- d) Yeast, vegetables, kidney

SECTION B – (40marks) Answer ALL questions

31. Discuss nutrition in laboratory animals (20marks)
32. Giving good examples, discuss zoonoses (20marks)
33. Discuss euthanasia as applied in laboratory animals (20marks)