



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF PURE AND APPLIED SCIENCES

DIPLOMA IN ANALYTICAL CHEMISTRY
(DAC 12S)

ACH 2208 : LABORATORY PRACTICE II

SEMESTER: EXAMINATIONS

SERIES: DECEMBER 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 3 PRINTED pages

Question ONE

- (a) (i) Define the term pseudopregnancy and suggest one condition that causes it **(2 marks)**
(ii) State FOUR environmental factors that affect breeding of animals **(4 marks)**
- (b) Man is known to keep animals in captivity. Give FIVE reasons and one example for each **(10 marks)**
- (c) List FIVE physical methods of sterilization as a way of controlling pests in animal cases **(5 marks)**
- (d) Define the term arboretum and state FOUR purposes of maintain it **(5 marks)**
- (e) With reference to herbarium techniques define the following
- (i) Mounting
 - (ii) Liquid collection
 - (iii) Vasculum
 - (iv) Altimeter
- (4 marks)**

Question TWO

- (a) State SIX factors that influence selection of suitable animal accommodation **(6 marks)**
- (b) Estradiol is a principal female sex hormone in mammals. State FIVE secondary sex characteristics influenced by this hormone **(5 marks)**
- (c) (i) Define the term herbarium **(2 marks)**
(ii) State FOUR purposes of maintaining a herbarium **(4 marks)**
- (d) State the use of the following in the animal house
- (i) Quarantine room
 - (ii) Isolation room
 - (iii) Surgery room
- (3 marks)**

Question THREE

- (a) Name SIX parts of animal body in which the protein keratin forms the main component **(6 marks)**
- (b) Give the term used for each of the following with reference to laboratory animals
- (i) Milk producing hormone
 - (ii) Ducted glands
 - (iii) Injection of a drug into the abdominal cavity

- (iv) A method of mating whereby one or more males are run with several female (**4 marks**)
- (c) Fill the following blanks with matching terms selected from the list given terms: Gestation, indigenous, palpation, queen, instar, Infestation, emetic, placenta, antibiotic, weaning.
- (i) _____ The invasion of a host animal's body surface or living quarters by another dependant living organism
- (ii) _____ Death of some portion of an organ e.g. from damage to its blood supply
- (iii) _____ Stage between moults in the larval development of insects.
- (iv) _____ the length of time from conception of birth in live bearing animals
- (v) _____ A substance used to induce vomiting e.g. common salt
- (vi) _____ Animal native, not introduced to a particular region
- (vii) _____ Removing the young from access to the mother's milk and attention.
- (viii) _____ Manual method of determining pregnancy in animals
- (ix) _____ Female cat
- (x) _____ Organ by which an unborn infact gets nourishment from its mother

Question FOUR

- (a) List SIX forms of vivarium and state the distinguishing feature of each (**12 marks**)
- (b) State EIGHT items that must be written on the label of a mounted plant on herbarium sheet (**8 marks**)

Question FIVE

- (a) Define the following and give one example for each
- (i) Nocturnal
- (ii) Arboreal
- (iii) Anesthetic
- (iv) Digitigrade
- (v) Analgesic
- (10 marks)**
- (b) State SEVEN advantages of using green house over normal open air growing of crops (**7 marks**)
- (c) State the importance of the following in the animal house
- (i) Maximum – minimum thermometer (**2 marks**)
- (ii) Clinical thermometer (**1 mark**)