



GRANTON TECH

VETERINARY

SCIENCE:

PART 1

1565

**STUDY INSTRUCTIONS FOR
DISTANCE EDUCATION
HOME STUDY
CORRESPONDENCE COURSE 1565
11 LESSONS 11 EXAMINATIONS**

GRANTON TECH

exams@grantontech.com

COPYRIGHT © 2010 BY GRANTON TECH



VETERINARY SCIENCE: PART 1



CONTENTS

	Page
INTRODUCTION:	3-6
Objective	
Learning Procedure	
Submissions and Evaluation	
Certification	
Prerequisite	
Duration	
Hours	
Submissions	
Correspondence Course	
Materials	
HOW TO START	7
STUDY SEQUENCE	8
PROGRESS REPORT	9
LESSONS	10-20
SUMMARY OF LEARNING OBJECTIVES	21
SUMMARY OF COURSE CONTENT	22
SELF-TESTS	23-45
SELF-TEST ANSWERS	46-48
EXAMINATIONS	49-80

Trademarks

Some of the product names and company names used in this course and accompanying textbooks have been used for identification purposes only and may be trademarks of their respective manufacturers and sellers.



INTRODUCTION

OBJECTIVE

On completion of this course you will be able to answer questions and solve problems in veterinary science. The course covers comparative anatomy and physiology, nutrition, diseases and surgery for: dogs and cats, cattle, horses, sheep, goats and pigs. Contents of this course are used daily, on the job, by veterinarians and their aides and assistants as well as pet owners and stock farmers.

LEARNING PROCEDURE

Your instruction is based on Granton's system of "learning by doing." Study the text with a pencil in your hand, making sure that you underline key items. As you read the text, make separate notes as necessary. Additional instructions are given for each lesson and assignment. Your examination consists of completing the examination questions presented on the pages to follow.

SUBMISSIONS AND EVALUATION

The examinations are open book. You are being examined not only on your memory but also on your ability to find the correct facts and to apply them. Your examination consists of completing the examination questions developed from each Chapter.

CERTIFICATION

On successful completion of this course you will receive access to certification.



PREREQUISITE

There is no formal prerequisite, however, this is an adult program and we require our students to be 19 years or older unless they are Grade XII graduates, and have taken a previous Granton course, or have authorization from their parents or their employers to take the course.

DURATION

Students would be expected to spend two full evenings on each lesson. 11 study sessions, 11 examinations, 11 submissions. For optimum progress we recommend you aim to complete one exam per week.

HOURS

Our experience suggests that this subject may be completed in 110 study hours or 11 weeks if you submit 1 exam each week. However, you may require more or less time depending on your previous education, experience and intensity of study.



CORRESPONDENCE COURSE MATERIALS

LESSONS TEXT AND STATIONERY

STUDY INSTRUCTIONS

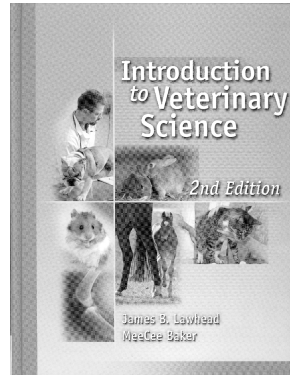
REFERENCE TEXT

GRANTON INSTITUTE OF TECHNOLOGY

**VETERINARY
SCIENCE:
PART 1
1565**

STUDY INSTRUCTIONS FOR
DISTANCE EDUCATION
HOME STUDY
CORRESPONDENCE COURSE 1565
11 LESSONS 11 EXAMINATIONS

GRANTON INSTITUTE OF TECHNOLOGY
263 ADELAIDE STREET WEST TORONTO ONTARIO M5H 1Y3
TELEPHONE (416) 977-3929 FAX (416) 977-5612
COPYRIGHT © 2005 BY GRANTON INSTITUTE OF TECHNOLOGY PRINTED IN CANADA



GRANTON INSTITUTE OF TECHNOLOGY

**VETERINARY
SCIENCE:
PART 1
1565**

EXAMINATIONS FOR
DISTANCE EDUCATION
HOME STUDY
CORRESPONDENCE COURSE 1565
11 EXAMINATIONS

GRANTON INSTITUTE OF TECHNOLOGY
263 ADELAIDE STREET WEST TORONTO ONTARIO M5H 1Y3
TELEPHONE (416) 977-3929 FAX (416) 977-5612
COPYRIGHT © 2005 BY GRANTON INSTITUTE OF TECHNOLOGY PRINTED IN CANADA

Introduction to
Veterinary Science –
2nd Edition (2009)
Author: James A
Lawhead and Meecee
Baker
Publisher: Delmar,
Cengage Learning
351 pages
11 × 8 1/2 inches
RGL: 10.3
ISBN: 978-1-4283-
1225-8

Study instructions
and examinations
Course 1565
80 Pages
Edition 12.8
8 1/2 × 11 inches



HOW TO START

You are to work through the text page by page, chapter by chapter.

As you work through each chapter underline important items with your pencil. Work through the chapters until you reach an examination.

The Granton tutorial staff will answer questions you may have as you work through your lessons. In order for us to serve you better, please ensure your questions are specific. Noting the examination question number and the text page where you are having problems will help us solve your problems quickly and efficiently.



STUDY SEQUENCE

VETERINARY SCIENCE: PART COURSE CODE 1565

Granton Lesson Number	Textbook Chapter	Topic to be Studied	Granton Exam Number	Grade %
Lesson 1	Chapter 1:	Basic Cell Biology	1565-01	.....
Lesson 2	Chapter 2:	Tissue Types and Functions	1565-02	.....
Lesson 3	Chapter 3:	The Musculoskeletal System	1565-03	.....
Lesson 4	Chapter 4:	The Circulatory System	1565-04	.....
Lesson 5	Chapter 5:	The Respiratory System	1565-05	.....
Lesson 6	Chapter 6:	The Renal System	1565-06	.....
Lesson 7	Chapter 7:	The Digestive System	1565-07	.....
Lesson 8	Chapter 8:	The Reproductive System	1565-08	.....
Lesson 9	Chapter 9:	The Nervous System	1565-09	.....
Lesson 10	Chapter 10:	The Endocrine System	1565-10	.....
Lesson 11	Chapter 11:	The Immune System	1565-11	.....



PROGRESS REPORT

VETERINARY SCIENCE: PART 1 COURSE CODE 1565

Record of Progress								
Granton Lesson Number/ Examination Number	Date Started	Date Completed	Total Days	Time on Lesson	Time on Exam	Total Time	Grade Expected	Grade Awarded
Lesson 1/ Examination 1565-01								
Lesson 2/ Examination 1565-02								
Lesson 3/ Examination 1565-03								
Lesson 4/ Examination 1565-04								
Lesson 5/ Examination 1565-05								
Lesson 6/ Examination 1565-06								
Lesson 7/ Examination 1565-07								
Lesson 8/ Examination 1565-08								
Lesson 9/ Examination 1565-09								
Lesson 10/ Examination 1565-10								
Lesson 11/ Examination 1565-11								



LESSON 1

BASIC CELL BIOLOGY

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

1. state how many different types of amino acids are used to make proteins
2. list the five stages of mitosis

INSTRUCTION

Read and carefully study Chapter 1 in your text.

Complete Examination 1565-01.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-01

After completing lesson 1, answer the questions of Examination 1565-01 which appear at the end of the instruction notes.

Continue to lesson 2.



LESSON 2

TISSUE TYPES AND FUNCTIONS

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

3. name the hairlike extension from the nerve cell body that carries the nerve impulse
4. list the three muscle types

INSTRUCTION

Read and carefully study Chapter 2 in your text.

Complete Examination 1565-02.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-02

After completing lesson 2, answer the questions of Examination 1565-02 which appear at the end of the instruction notes.

Continue to lesson 3.



LESSON 3

THE MUSCULOSKELETAL SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

5. define: axial skeleton
6. state where the cervical vertebrae are located

INSTRUCTION

Read and carefully study Chapter 3 in your text.

Complete Examination 1565-03.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-03

After completing lesson 3, answer the questions of Examination 1565-03 which appear at the end of the instruction notes.

Continue to lesson 4.



LESSON 4

THE CIRCULATORY SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

7. define: tachycardia
8. name the three types of protein found in plasma

INSTRUCTION

Read and carefully study Chapter 4 in your text.

Complete Examination 1565-04.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-04

After completing lesson 4, answer the questions of Examination 1565-04 which appear at the end of the instruction notes.

Continue to lesson 5.



LESSON 5

THE RESPIRATORY SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

9. name the organ that controls the rate of respiration
10. quote the normal respiration rate for a dog

INSTRUCTION

Read and carefully study Chapter 5 in your text.

Complete Examination 1565-05.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-05

After completing lesson 5, answer the questions of Examination 1565-05 which appear at the end of the instruction notes.

Continue to lesson 6.



LESSON 6

THE RENAL SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

11. name the breed of dog that has a history of difficulty metabolizing uric acid
12. state the primary function of the renal system

INSTRUCTION

Read and carefully study Chapter 6 in your text.

Complete Examination 1565-06.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1

EXAMINATION 1565-06

After completing lesson 6, answer the questions of Examination 1565-06 which appear at the end of the instruction notes.

Continue to lesson 7.



LESSON 7

THE DIGESTIVE SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

13. name the structure covering the opening of the larynx
14. quote the pH level of the stomach

INSTRUCTION

Read and carefully study Chapter 7 in your text.

Complete Examination 1565-07.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-07

After completing lesson 7, answer the questions of Examination 1565-07 which appear at the end of the instruction notes.

Continue to lesson 8.



LESSON 8

THE REPRODUCTIVE SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

15. name one species that exhibits induced ovulation
16. list the four stages of the estrous cycle

INSTRUCTION

Read and carefully study Chapter 8 in your text.

Complete Examination 1565-08.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-08

After completing lesson 8, answer the questions of Examination 1565-08 which appear at the end of the instruction notes.

Continue to lesson 9.



LESSON 9

THE NERVOUS SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

17. state how humans can contract listeriosis
18. list three regions of the brain

INSTRUCTION

Read and carefully study Chapter 9 in your text.

Complete Examination 1565-09.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-09

After completing lesson 9, answer the questions of Examination 1565-09 which appear at the end of the instruction notes.

Continue to lesson 10.



LESSON 10

THE ENDOCRINE SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

19. name the hormone causing milk letdown
20. state which hormones work in tandem to regulate blood sugar

INSTRUCTION

Read and carefully study Chapter 10 in your text.

Complete Examination 1565-10.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-10

After completing lesson 10, answer the questions of Examination 1565-10 which appear at the end of the instruction notes.

Continue to lesson 11.



LESSON 11

THE IMMUNE SYSTEM

LEARNING OBJECTIVES

On completion of this lesson you will be able to:

21. quote the typical life span of plasma cells
22. identify the organ which removes aged red blood cells from circulation

INSTRUCTION

Read and carefully study Chapter 11 in your text.

Complete Examination 1565-11.

SELF-TEST AND KNOWLEDGE REINFORCEMENT

Complete the self-test questions provided in these instruction notes.

DO NOT SUBMIT your solutions to your instructor for evaluation.

Check your Self-test answers against the key provided in these instruction notes.

VETERINARY SCIENCE: PART 1 EXAMINATION 1565-11

After completing lesson 11, answer the questions of Examination 1565-11 which appear at the end of the instruction notes.

This is your last "Veterinary Science: Part 1" exam.



VETERINARY SCIENCE: PART 1 SUMMARY OF LEARNING OBJECTIVES

Upon completion of Veterinary Science: Part 1 you will be able to:

1. state how many different types of amino acids are used to make proteins
2. list the five stages of mitosis
3. name the hairlike extension from the nerve cell body that carries the nerve impulse
4. list the three muscle types
5. define: axial skeleton
6. state where the cervical vertebrae are located
7. define: tachycardia
8. name the three types of protein found in plasma
9. name the organ that controls the rate of respiration
10. quote the normal respiration rate for a dog
11. name the breed of dog that has a history of difficulty metabolizing uric acid
12. state the primary function of the renal system
13. name the structure covering the opening of the larynx
14. quote the pH level of the stomach
15. name one species that exhibits induced ovulation
16. list the four stages of the estrous cycle
17. state how humans can contract listeriosis
18. list three regions of the brain
19. name the hormone causing milk letdown
20. state which hormones work in tandem to regulate blood sugar
21. quote the typical life span of plasma cells
22. identify the organ which removes aged red blood cells from circulation



VETERINARY SCIENCE: PART 1

SUMMARY OF COURSE CONTENT

Lesson 1

Comparative Anatomy and Physiology

Basic Cell Biology

- ☐ Cell Makeup
- ☐ Cell Structure
- ☐ Cell Function
- ☐ Mitosis and Cancer
- ☐ Mammalian Reproduction
- ☐ Clinical Practice

Lesson 2

Tissue Types and Functions

- ☐ Epithelial Tissues
- ☐ Connective Tissues
- ☐ Muscle Tissues
- ☐ Nerve Tissues
- ☐ Clinical Practice

Lesson 3

The Musculoskeletal System

- ☐ Musculoskeletal System Functions
- ☐ Bone Structure
- ☐ Joint Types and Movements
- ☐ Axial and Appendicular Skeletons
- ☐ Bone Growth and Remodeling
- ☐ Relation of Bones, Muscles, and Movement
- ☐ Clinical Practice

Lesson 4

The Circulatory System

- ☐ Blood Components and Functions
- ☐ Mammalian Heart Structures
- ☐ Blood Vessels and Blood Flow
- ☐ Electrocardiograms, Heart Sounds, and Blood Pressure
- ☐ Clinical Practice

Lesson 5

The Respiratory System

- ☐ The Respiratory Tract
- ☐ Mechanisms of Breathing
- ☐ Clinical Practice

Lesson 6

The Renal System

- ☐ Renal System Structures
- ☐ Renal System Functions
- ☐ Kidney Structures and Urine Formation and Regulation
- ☐ Urine and Blood Evaluation
- ☐ Clinical Practice

Lesson 7

The Digestive System

- ☐ Digestive System Structures
- ☐ Monogastric Digestion
- ☐ Clinical Practice

Lesson 8

The Reproductive System

- ☐ Male Anatomy and Hormonal Function
- ☐ Female Anatomy and Hormonal Function
- ☐ Pregnancy and Parturition
- ☐ Clinical Practice

Lesson 9

The Nervous System

- ☐ Neuron Function
- ☐ Brain Structure and Function
- ☐ Anatomy and Function of the Spinal Cord
- ☐ Sensory Somatic and Autonomic Nervous Systems
- ☐ Clinical Practice

Lesson 10

The Endocrine System

- ☐ Endocrine System
- ☐ Endocrine Glands
- ☐ Clinical Practice

Lesson 11

The Immune System

- ☐ Antigens and Immunity
- ☐ Immunity and Immune Response
- ☐ Clinical Practice

Text: Introduction to Veterinary Science – 2nd Edition (2009)
Author: James A Lawhead and Meecee Baker
Publisher: Thomson Learning - Delmar Learning



VETERINARY SCIENCE: PART 1 SELF-TESTS

SELF-TEST 1565-01	24-25
SELF-TEST 1565-02	26-27
SELF-TEST 1565-03	28-29
SELF-TEST 1565-04	30-31
SELF-TEST 1565-05	32-33
SELF-TEST 1565-06	34-35
SELF-TEST 1565-07	36-37
SELF-TEST 1565-08	38-39
SELF-TEST 1565-09	40-41
SELF-TEST 1565-10	42-43
SELF-TEST 1565-11	44-45



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-01

True/False

- | | |
|---|--|
| T F 1. Fats easily dissolve in water. | T F 9. Telophase and prophase are different. |
| T F 2. Larger molecules diffuse more readily than smaller molecules. | T F 10. Glycogen is a polysaccharide. |
| T F 3. Water can diffuse through a cell membrane. | T F 11. Ribose is the sugar associated with RNA. |
| T F 4. During osmosis, all molecules readily pass through a membrane. | T F 12. Ribose is the sugar associated with DNA. |
| T F 5. Cell membranes are semipermeable. | T F 13. Phospholipids attract and repel water. |
| T F 6. Mammals should have an even number of chromosomes. | T F 14. Smooth endoplasmic reticulum (SER) contains ribosomes. |
| T F 7. Enzymes function identically in all species. | T F 15. Anabolism is the same as catabolism. |
| T F 8. A diabetic individual contains too little blood sugar. | T F 16. Chromosomes are shaped like the letter Z. |

Completion

Complete each sentence or statement.

17. High blood sugar levels indicate _____ (disease).
18. Twenty-two _____ are used to make proteins.
19. _____ is another name for the cell membrane.
20. Chromatin is found within the cell's _____.
21. All cellular reactions are collectively called _____.
22. Extracellular fluid (ECF) surrounds all living cells and is derived from the _____.
23. Proteins comprise _____ percent of the total dry weight of an animal's body.
24. An _____ is a special type of protein that fights infection.
25. Cell membranes contain about one-half _____ and one-half _____.
26. Cell contents can be divided into the _____ and the _____.
27. The nuclear membrane is often joined to other cell organelles like the _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-01

28. _____ (organelles) contain enzymes that break down other molecules.
29. When a cell is not dividing, it is said to be in _____.
30. _____ tumors are localized and have not spread.
31. _____ brings the oxygen to cells and carries carbon dioxide away from the cells.
32. Only _____ undergo meiosis.
33. The golgi apparatus produces _____ and _____.
34. _____ allows for product to be released into the extracellular fluid (ECF).
35. Two cell divisions occur in _____ while only one cell division occurs in _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-02

True/False

- | | | | | | |
|---|---|---|---|---|--|
| T | F | 1. Endothelial tissue lines the body's surface and openings. | T | F | 11. Axons in horses can exceed two feet in length. |
| T | F | 2. Hair is epidermal tissue. | T | F | 12. Cramping is not a sign of tying up disease. |
| T | F | 3. Skeletal and cardiac are both types of smooth muscle. | T | F | 13. The abomasum is the third of four ruminant stomachs. |
| T | F | 4. Kidney damage may occur from Monday morning disease. | T | F | 14. Hypocalcemia is caused by a lack of magnesium. |
| T | F | 5. Cows with a displaced abomasum do not eat well. | T | F | 15. Animals with foot and mouth disease may stop eating. |
| T | F | 6. There is only one approved way to repair a displaced abomasum. | T | F | 16. A black horse would have a better chance of developing melanoma than a gray horse. |
| T | F | 7. The hypodermis lies between the epidermis and the dermis. | T | F | 17. Striation refers to the smell of skeletal muscle. |
| T | F | 8. Animals add more myofibers as they age. | T | F | 18. Collagen provides tissue elasticity. |
| T | F | 9. Exercise increases the size of myofibers. | T | F | 19. Keratin is a protein. |
| T | F | 10. Myofibers in cardiac muscle contain more mitochondria than skeletal muscle. | T | F | 20. Cuboidal indicates a triangular shape. |

Completion

Complete each sentence or statement.

21. A cow's _____ becomes displaced when a twisted stomach occurs.
22. _____ epithelial tissue lines the urinary tract.
23. Tendons attach bones to _____ while ligaments attach bones to other bones.
24. The hair-like extension from the cell body that carries the nerve impulse is called the _____.
25. _____ disease is another name for Monday morning syndrome in horses.
26. Motor neurons extend to a _____ or a _____.
27. The common name for integument is _____.
28. _____ cells produce milk.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-02

29. The _____ provides visual evidence of Horner's syndrome.
30. Hot objects are detected by _____ neurons.
31. _____ cells are specialized cells that control cardiac muscle contractions.
32. Rigor mortis occurs because, after death, there is no ability by the body to pump _____ back into the endoplasmic reticulum.
33. The liquid portion of the blood is called _____.
34. Ligaments contain the two proteins _____ and _____.
35. Hair serves as a modification of the _____.
36. _____ tissue secretes saliva.
37. _____ tissue is attacked by foot and mouth disease.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-03

True/False

- | | |
|--|---|
| T F 1. A hinge joint allows rotation. | T F 15. Movement is a function of bones. |
| T F 2. Aspirin can be used to treat hip dysplasia. | T F 16. Protection is a function of bones. |
| T F 3. A growth plate is a cartilage joint. | T F 17. Blood cell production is a function of bones. |
| T F 4. All mammals have the same number of bones. | T F 18. Mineral storage is a function of cartilage. |
| T F 5. Cats with high-rise syndrome usually break their femur. | T F 19. Calcium and phosphorous are organic minerals found in bone. |
| T F 6. Bones continue to increase in length even after an animal reaches maturity. | T F 20. Fibrous joints are found in the skull. |
| T F 7. Genetics play a role in hip dysplasia. | T F 21. The skull is a portion of the axial skeleton. |
| T F 8. Lumbar vertebrae are located in the upper back. | T F 22. The vertebrae are not portions of the axial skeleton. |
| T F 9. A horse has more bones than a dog. | T F 23. The ribs are portions of the axial skeleton. |
| T F 10. The hardness and strength of bones comes from minerals. | T F 24. The sternum is a portion of the axial skeleton. |
| T F 11. Abduction occurs when a body part is moved closer to the body. | T F 25. The ulna is a bone located in the lower fore limb. |
| T F 12. The scapula is another name for the shoulder blade. | T F 26. The radius is a bone located in the phalanges. |
| T F 13. Teeth and bones appear dark on a radiograph. | T F 27. Phalanges is another name for finger bones. |
| T F 14. Structure is a function of bones. | T F 28. The patella is another name for the kneecap. |

Completion

Complete each sentence or statement.

29. The ilium, ischium, and the pubis are found in the _____.
30. _____ vertebrae are found in the tail.
31. A fibrous joint in the skull is also called a _____.
32. The picture resulting from X-rays being passed through the body is called a _____.
33. The smallest metacarpal bone in a dog is called the _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-03

34. The cranial drawer sign diagnosis indicates a torn _____ ligament.
35. In immature animals, the growth plate consists of _____.
36. Canine hip dysplasia is a degenerative _____ disease.
37. Joint ill occurs when bacteria enter the _____ of newborns.
38. The hollow center of long bone is called the _____ cavity.
39. Bone _____ manufactures blood cells.
40. The _____ is a thin connective tissue that covers bones.
41. The three types of bone cells are _____, _____, and _____.
42. The true moveable joints are called _____ joints.
43. The appendicular skeleton contains the bones of the _____.
44. Cervical vertebrae are located in the _____.
45. Dried bone consists of 70% _____ and 30% _____ material.
46. _____ joints are found in the pelvis.
47. _____ and appendicular are the two sections of the skeleton.
48. Flexor muscles _____ a joint.
49. The mineral _____, stored in bone, also plays a role in muscle contraction.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-04

True/False

- | | |
|--|---|
| T F 1. The atrium is a portion of the auricle. | T F 12. Blood pressure is higher in the veins than in arteries. |
| T F 2. Fear can cause tachycardia. | T F 13. The cranial vena cava is referred to as superior in humans. |
| T F 3. Plasma consists of 40% to 45% water. | T F 14. The contraction phase of the cardiac cycle is called systole. |
| T F 4. Heart failure is more likely to occur in an old dog than a young dog. | T F 15. The sinoatrial node is also known as the pacemaker. |
| T F 5. The caudal vena cava is referred to as superior in humans. | T F 16. During an asystole condition, an electrocardiograph will display a jagged line. |
| T F 6. The suffix -emia used to define blood levels. | T F 17. Red blood cells aid in clotting. |
| T F 7. Veins carry blood away from the heart. | T F 18. The right ventricle has the thickest wall of the four heart chambers. |
| T F 8. Arteries carry blood away from the heart. | T F 19. The carotid arteries supply blood to the head. |
| T F 9. There is a great deal of empty space between the pericardium and the heart. | T F 20. The renal arteries supply blood to the legs. |
| T F 10. There are ten types of blood cells. | |
| T F 11. A systolic murmur makes a "lub swish-dub" sound. | |

Completion

Complete each sentence or statement.

21. Relaxation or increase in size of a blood vessel is called _____.
22. "Lub dub-swish" describes a _____ murmur.
23. When a lack of sufficient blood pumps to vital tissues, _____ occurs.
24. The large vessel that returns blood to the heart is called the _____.
25. The cardiac cycle includes one complete _____ and _____ complete relaxation of the heart.
26. The condition of low red blood cell count is called _____.
27. During _____ disease, the body's immune system destroys its own cells.
28. Poor capillary refill time can be an indication of _____.
29. An _____ is the instrument used to trace an electrocardiogram.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-04

30. The higher blood pressure number (systole) occurs as the heart _____.
31. The right ventricle pumps blood to the _____.
32. Blood is pumped through the entire body in _____ circulation.
33. Arteries branch into smaller _____.
34. Erythropoiesis is the production of _____ in the bone marrow.
35. Tachycardia describes an _____ heart rate.
36. Nutrient/gas transfer in the circulatory system occurs in the _____.
37. Arteries carry blood _____ (direction) the heart.
38. Leucocytes help to fight _____.
39. Blood can be divided into fluid and _____ parts.
40. Diastole is the _____ phase of the cardiac cycle.
41. Heart _____ occurs when the heart fails to meet the demands of the body.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-05

True/False

- | | | | | | | | |
|---|---|-----|--|---|---|-----|---|
| T | F | 1. | Mucus lines the epithelial tissue in the nostrils. | T | F | 11. | Breathing is involuntary. |
| T | F | 2. | The cartilage rings of the trachea are shaped like an O. | T | F | 12. | Normal healthy lungs are hard to the touch. |
| T | F | 3. | The anatomy of the nasal passages helps to bring air closer to body temperature. | T | F | 13. | Respiration rate cannot be voluntarily controlled. |
| T | F | 4. | Pneumonia can be either bacterial or viral. | T | F | 14. | Keeping a horse on pasture may alleviate heave symptoms. |
| T | F | 5. | The diaphragm moves during the respiration process. | T | F | 15. | Oxygen plays a more significant role in respiration than carbon dioxide. |
| T | F | 6. | During abdominal surgery to repair a diaphragmatic hernia, an animal can breathe on its own. | T | F | 16. | Bronchi are larger in diameter than bronchioles. |
| T | F | 7. | An upper airway infection is generally more serious than pneumonia. | T | F | 17. | When oxygen levels in blood fall, the appearance of the blood is lighter. |
| T | F | 8. | The larynx can be palpated from outside the body. | T | F | 18. | High levels of carbon dioxide in the blood stimulate slower respiration. |
| T | F | 9. | The epiglottis is a malignant tumor, which sometimes grows in the throat. | T | F | 19. | A bronchodilator closes the airways. |
| T | F | 10. | When the neck is bent sharply, the trachea becomes closed. | | | | |

Completion

Complete each sentence or statement.

20. A bronchodilator _____ the airways.
21. Lung inflammation is called _____.
22. _____ is the singular form of bronchi.
23. The linings of the lungs and chest are called _____.
24. _____ is the process in which air is expelled from the lungs.
25. Prematurely born animals often lack sufficient _____ and therefore have difficulty inflating their own lungs.
26. The blood entering the pulmonary veins has a high amount of _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-05

27. The opening in the larynx is called the _____.
28. The muscles between the ribs are called the _____ muscles.
29. Gas exchanges in the smallest openings of the respiratory system called the _____.
30. The trachea branches into two _____.
31. The human larynx is sometimes called the _____ apple.
32. The _____ is the common area shared by the nose and throat.
33. _____ is the reflex reaction that occurs when the nose is irritated.
34. _____ blood cells move into the lungs to fight a pneumonia infection.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-06

True/False

- | | | | | | |
|---|---|--|---|---|--|
| T | F | 1. Males have a higher incidence of urinary incontinence than females. | T | F | 12. The term uremia describes the clinical signs of azotemia. |
| T | F | 2. The primary function of the renal system is to excrete nitrogenous waste. | T | F | 13. Acute renal failure is more common than chronic renal failure in elderly pets. |
| T | F | 3. Urine becomes more concentrated during times of excessive hydration. | T | F | 14. The bladder is unusually large in urinary obstructed cats. |
| T | F | 4. Azotemia can result from dehydration. | T | F | 15. Kidneys are located in the retroperitoneal space. |
| T | F | 5. The term chronic indicates sudden onset. | T | F | 16. A full bladder can be just a few cell layers thick. |
| T | F | 6. The term acute indicates sudden onset. | T | F | 17. The kidneys can produce urine that is four times as concentrated as blood. |
| T | F | 7. The bladder filters blood and produces urine. | T | F | 18. Ventral means above. |
| T | F | 8. Prolactin hormone therapy can treat urinary incontinence. | T | F | 19. Urine pH is never basic (pH > 7). |
| T | F | 9. Males are more prone to urinary obstruction from small stones than females. | T | F | 20. Antidotes can be given for antifreeze poisoning. |
| T | F | 10. Only one type of bladder stone exists. | T | F | 21. Blood volume is lower than normal in dehydrated animals. |
| T | F | 11. Kidney transplants can be performed in companion animals. | | | |

Completion

Complete each sentence or statement.

22. A buck is a(n) _____ goat.
23. A doe is a(n) _____ goat.
24. The _____ is the tube-like structure that connects the kidney to the bladder.
25. The _____ and respiratory systems control pH of the blood.
26. When sodium levels increase, an animal is stimulated to _____.
27. A refractometer measures _____ in urine.
28. Symptoms of parvovirus in dogs include _____ and _____.
29. When an animal's kidneys no longer function, it is said to be in _____ failure.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-06

30. _____ epithelial tissue lines the bladder.
31. The _____ is the tube that transports urine to the outside of the body.
32. The _____ work to regulate the amounts of sodium, chloride, and potassium.
33. The kidneys divide into _____ regions.
34. When given hypertonic saline, cows are stimulated to _____.
35. Cloudiness of urine indicates a(n) _____ infection.
36. Blood or protein in the urine can indicate a _____ infection.
37. Inexperienced cat owners often misdiagnose urinary obstruction as _____.
38. Feline diets aimed at controlling urinary crystals attempt to control _____ and maintain a(n) _____ pH.
39. _____ is the surgery that helps cats with chronic urinary obstructions.
40. Suture means to _____.
41. The wall of the bladder contains _____ muscle.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-07

True/False

- | | | | | | |
|---|---|--|---|---|---|
| T | F | 1. Cats are herbivores. | T | F | 11. Insulin, when released into the bloodstream by the islets of Langerhans, causes blood sugar levels to rise. |
| T | F | 2. Looking at a horse's teeth can help determine the animal's age. | T | F | 12. Cattle have no upper incisor teeth. |
| T | F | 3. The normal pH of a monogastric's stomach is 7.0. | T | F | 13. The cause of colic is easy to diagnose. |
| T | F | 4. Barium is distinctive on a radiograph. | T | F | 14. Dogs are herbivores. |
| T | F | 5. Diarrhea originating in the large intestine occurs more frequently than diarrhea that originates in the small intestine. | T | F | 15. Horses are herbivores. |
| T | F | 6. Dr. Lawhead recommends that dog owners keep a supply of fresh bones available to feed to their pets in order to keep their dogs' teeth clean. | T | F | 16. Large quantities of water are absorbed in the stomach. |
| T | F | 7. Food passes through the esophagus on its way to the stomach. | T | F | 17. The first region of the small intestine is the duodenum. |
| T | F | 8. Monogastrics have four stomachs. | T | F | 18. When excess glucose is present in the bloodstream, the liver extracts it and turns it into amylase. |
| T | F | 9. The liver is located behind the stomach. | T | F | 19. Release of glucagon into the bloodstream causes the blood sugar to rise. |
| T | F | 10. The pancreas appears long, while, and pale. | T | F | 20. The most liquid part of the rumen is in the lowermost region. |

Completion

Complete each sentence or statement.

21. The following symptoms are characteristic of the equine condition _____: kicking at abdomen, rolling, lying down and standing up repeatedly, sweating.
22. The portion of the tooth that lies above the gum line is called the _____.
23. The foremost teeth used to bite into food are called _____.
24. The _____ covers the opening of the larynx.
25. Small finger-like projections that line the intestine are called _____.
26. The _____ is the portion of the ruminant stomach with a honeycomb-type lining.
27. The _____ is the portion of a ruminant stomach known as the true stomach.
28. Tooth _____ is the hardest substance in the body.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-07

29. The root of the tooth is typically _____ times as long as the crown.
30. Ascending, transverse, and descending are all parts of the _____.
31. The _____ produces bile.
32. The condition commonly treated by phenobarbital is _____.
33. In ruminants, fermentation occurs in the _____.
34. In horses, fermentation occurs in the _____.
35. The two types of bloat are _____ and free gas.
36. _____ bloat commonly occurs when animals are turned out to pasture.
37. Cardia, body, and pylorus are the three regions of a _____ stomach.
38. Amylase, which is found in saliva, digests _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-08

True/False

- | | | | | | |
|---|---|--|---|---|--|
| T | F | 1. Luteinizing and follicle stimulating hormones function in both the female and male. | T | F | 12. Estrogen prepares the uterus for delivery. |
| T | F | 2. Females continue to produce additional numbers of eggs throughout life. | T | F | 13. Mammary development begins at puberty. |
| T | F | 3. Cats exhibit induced ovulation. | T | F | 14. Dogs appreciate frequent owner visits during labor. |
| T | F | 4. Parturition consists of five stages. | T | F | 15. C-sections are often performed on cattle while they are in the standing position. |
| T | F | 5. Calves are normally born back legs first. | T | F | 16. Although spaying and castration are both surgical procedures, spaying is easier to perform. |
| T | F | 6. A dog's temperature usually rises prior to whelping. | T | F | 17. For sperm production to occur most efficiently and effectively, scrotal temperature should be lower than body temperature. |
| T | F | 7. An ovariohysterectomy is a type of castration. | T | F | 18. Cats are seasonally polyestrous. |
| T | F | 8. The urethra carries both semen and urine. | T | F | 19. The normal estrus cycle in cattle is about 28 days. |
| T | F | 9. Removal of an intact male from the flock induces doe goats to cycle. | T | F | 20. Diestrus follows ovulation in the estrus cycle. |
| T | F | 10. Female dogs cycle about once every six months. | | | |
| T | F | 11. The bloody discharge from dogs is the same as a human menstrual period. | | | |

Completion

Complete each sentence or statement.

21. Lidocaine is a type of _____.
22. Sperm are manufactured in the _____.
23. The _____ is the only accessory sex gland present in the dog.
24. The fetus grows most rapidly in the _____ trimester.
25. _____, released by the fetus, stimulates parturition.
26. Lactation in dairy cattle _____ about two months post-delivery.
27. The _____ becomes infected in pyometra.
28. Cystic ovaries can interfere with _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-08

29. Cattle producers attempt to have cows calve every _____ months.
30. A _____ occurs when an animal continues to strain after parturition and the uterus turns inside out.
31. In the embryo, the testes develop in the _____.
32. Female cats enter _____ when nursing.
33. Cattle have 80 to 100 sites of attachments between embryo/fetus and dam. These points are called _____.
34. The embryo becomes a fetus at the point of _____.
35. The placenta produces the hormone _____ so the corpus luteum eventually is not needed.
36. Delivery of the _____ occurs in stage three of parturition.
37. Prior to assisting a cow with delivery, the attendant should wash the cow's _____ and wear shoulder-length plastic _____.
38. The corpus luteum produces the hormone _____.
39. The hormone _____ stimulates milk letdown.
40. The hormone _____ stimulates milk production.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-09

True/False

- | | | | | | |
|---|---|---|---|---|---|
| T | F | 1. All nerves have a myelin sheath. | T | F | 11. Equine protozoal myeloencephalitis is caused by a virus. |
| T | F | 2. A reflex occurs without conscious thought. | T | F | 12. Neurons divide into three classifications. |
| T | F | 3. Damage to the right side of the brain will cause weakness in the left side of the body. | T | F | 13. The cerebellum is a region of the brain. |
| T | F | 4. Sympathetic stimulation causes the heart rate to decrease. | T | F | 14. The thalamus processes the sensory signal of smell before transferring it to the appropriate regions of the cerebrum. |
| T | F | 5. Rod cells of the eye are receptive to color. | T | F | 15. Caffeine stimulates the sympathetic system. |
| T | F | 6. Underlying causes of epileptic seizures are routinely identified. | T | F | 16. Constrict means to close. |
| T | F | 7. An axon is longer than a dendrite. | T | F | 17. Dogs see color clearly. |
| T | F | 8. The cerebrum is the largest portion of the brain. | T | F | 18. The medication phenobarbital is used to treat epilepsy. |
| T | F | 9. Animals never exhibit abnormal behavior after seizure activity. | T | F | 19. Insecticides are not known to affect the nervous system. |
| T | F | 10. Seizure medication must often be decreased due to the adjustment of the liver to medicine exposure. | T | F | 20. The cerebrum divides into three hemispheres. |

Completion

Complete each sentence or statement.

21. A volt is a unit of _____ measurement.
22. A long thin extension of a neuron is called a(n) _____.
23. A _____ is the junction where nerve impulses are transmitted.
24. Gray matter is housed in the _____ region of the spinal cord.
25. The dorsal root, which exits the spinal cord, carries _____ nerves.
26. Humans can contract listeriosis by consuming _____ dairy products.
27. The common name for listeriosis is _____ disease.
28. _____ organisms invade the brain in equine protozoal myeloencephalitis.
29. _____ nerves transport impulses up to 50 times faster than nerves without myelin sheaths.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-09

30. The _____ branch of nerves, which enters the spinal cord, control motor function.
31. The rod cells in the retina are receptive to _____.
32. In nystagmus, the _____ jerk in a rhythmic fashion.
33. _____ describes the condition where one region of the cell has a different charge than an adjacent region.
34. The _____ is the simplest unit of function within the nervous system.
35. The _____ is the portion of the brain devoted to voluntary and conscious processing.
36. A _____ is a test involving injection of dye that is used to diagnose intervertebral disk disease.
37. The white portion of the eye is called the _____.
38. The vestibular apparatus helps an animal maintain _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-10

True/False

- | | | | | | |
|---|---|---|---|---|---|
| T | F | 1. Endocrine glands contain ducts. | T | F | 11. Excessive thirst and urination along with aggressive appetite and weight loss are clinical signs of diabetes. |
| T | F | 2. In general, the endocrine system is regulated by negative feedback. | T | F | 12. Insulin overdose results in hyperglycemia. |
| T | F | 3. Luteinizing hormone has no effect in the male body. | T | F | 13. The thyroid gland is located above the kidneys. |
| T | F | 4. Poor vision can result from diabetes. | T | F | 14. The thyroid hormone thyroxine increases the metabolic rate in almost all tissues. |
| T | F | 5. Hypoglycemia is the name for high blood sugar. | T | F | 15. Rickets is a result of a childhood deficiency of vitamin A. |
| T | F | 6. Each hormone belongs to one of 10 chemical groups. | T | F | 16. Hypothyroidism is commonly seen in elderly cats. |
| T | F | 7. The hypothalamus links the nervous and the endocrine systems. | T | F | 17. Oxytocin is released from the posterior lobe of the pituitary gland. |
| T | F | 8. The release of prolactin results in uterine contraction and then the birth of a newborn. | T | F | 18. Follicle stimulating hormone helps to control sperm production. |
| T | F | 9. The corpus luteum produces progesterone. | T | F | 19. Alopecia is also known as baldness. |
| T | F | 10. The release of glycogen decreases blood sugar levels. | T | F | 20. Addison's disease is also called hyperadrenocorticism. |

Completion

Complete each sentence or statement.

21. _____ causes milk letdown and uterine contractions.
22. Growth hormone is another name for _____.
23. _____ stimulates the development of the mammary gland.
24. The _____ gland is often called the master gland.
25. The release of follicle stimulating hormone is controlled by the _____.
26. _____ and _____ work in tandem to regulate blood sugar.
27. The _____ is the only endocrine gland that can be palpated.
28. Vitamin _____ is produced by the skin when exposed to sunlight.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-10

29. Renin helps to regulate _____ pressure.
30. The hypophysis is another name for the _____.
31. Diabetes _____ results from a lack of antidiuretic hormone.
32. Estrogen is a _____ type hormone.
33. _____ signals epithelial cells of the mammary gland to produce milk at the end of pregnancy.
34. The _____ gland produces thyroxine.
35. Cortisol stimulates the liver to connect fat and protein into _____.
36. The general effect of the parathyroid hormone is to increase the blood level of _____.
37. The pituitary divides into _____ and _____ lobes.
38. Calcitonin is produced by the _____.
39. After an injection of prostaglandin, a cow will usually enter heat within _____ to _____ days.
40. Oxytocin is produced by the _____.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-11

True/False

- | | | | | | |
|---|---|---|---|---|---|
| T | F | 1. Large molecules typically elicit an immune response better than smaller molecules. | T | F | 13. Pain is a symptom of inflammation. |
| T | F | 2. Naturally occurring molecules in the body often cause immune reactions. | T | F | 14. Killed vaccines do not require a booster shot. |
| T | F | 3. Horses may experience leg swelling when tied for an extended period of time. | T | F | 15. Passive immunity lasts for the life of the animal. |
| T | F | 4. Blood vessels dilate at the site of infection causing reddening or inflammation. | T | F | 16. Tetanus is a viral disease. |
| T | F | 5. Antigens are fat molecules. | T | F | 17. Pruritis is a common symptom of an allergic reaction. |
| T | F | 6. All pathogens only have one site of determinant. | T | F | 18. An ELISA test may measure the amount of antigen or antibody in the blood. |
| T | F | 7. The life span of plasma cells is measured in years. | T | F | 19. A dog living in a single family home would require more vaccinations than a dog living in a kennel. |
| T | F | 8. Antigenic molecules normally reside outside of the body. | T | F | 20. The first vaccines were developed in the 1900s. |
| T | F | 9. An animal cannot survive without a spleen. | T | F | 21. <i>Clostridium tetani</i> causes lockjaw or tetanus. |
| T | F | 10. Warmth is a sign of inflammation. | T | F | 22. Lymph is colored reddish, like blood. |
| T | F | 11. Redness is not a sign of inflammation. | T | F | 23. Immunity passed from mother to newborn is called active immunity. |
| T | F | 12. Edema is a sign of inflammation. | | | |

Completion

Complete each sentence or statement.

24. The site of recognition on an antigen is called the _____.
25. Lymph begins as _____ fluid that forms between the cells.
26. The _____ removes aged red blood cells from circulation.
27. _____ and _____ have the primary responsibility of phagocytizing antigens when first detected by the body.
28. The _____ gland controls body temperature.
29. Dr. Edward _____ is credited with the first vaccination.



VETERINARY SCIENCE: PART 1 SELF-TEST 1565-11

30. _____ is the human disease closely associated with cowpox.
31. Animals that exhibit uncoordinated muscle movement are said to be _____.
32. The fluid carried throughout the lymphatic system is called _____.
33. A _____ immune response results when an animal has previously contracted a disease.
34. A _____ discharge indicates the presence of pus.
35. The first vaccine was developed to protect humans from _____.
36. _____ immunity is passed from mother to offspring in colostrum.
37. Intranasal vaccines are given through the _____.
38. _____ are used to treat atopy to pollens, dust, and dust mites.
39. In seroconversion, a titer must change by a factor of _____ times.
40. An accumulation of pus is called a(n) _____.
41. A _____ pathogen must attach itself to a cell before it invades the cell.
42. Antibody-rich first milk is called _____.
43. A _____ immune response prevents an animal from contracting the same disease a second time.



VETERINARY SCIENCE: PART 1 SELF-TEST ANSWERS

Self-Test 1

1. F
2. F
3. T
4. F
5. T
6. T
7. F
8. F
9. T
10. T
11. T
12. F
13. T
14. F
15. F
16. F
17. diabetes
18. amino acids
19. plasma membrane
20. nucleus
21. metabolism
22. blood
23. 50
24. antibody
25. protein, fat
26. nucleus, cytoplasm
27. endoplasmic reticulum
ribosomes
28. Lysosomes
29. interphase
30. benign
31. blood
32. sex cells gametes
33. polysaccharides,
lysosomes
34. exocytosis
35. meiosis, mitosis

Self-Test 2

1. F
2. T
3. F
4. T
5. T
6. F
7. F

8. F
9. T
10. T
11. T
12. F
13. F
14. F
15. T
16. F
17. F
18. F
19. T
20. F
21. abomasum
22. Transitional
23. muscles
24. axon
25. Tying up
26. muscle, gland
27. skin
28. Epithelial/Mammary
29. eye
30. sensory
31. Pacemaker
32. calcium
33. plasma
34. collagen, elastin
35. epidermis
36. Epithelial
37. Epithelial

Self-Test 3

1. F
2. T
3. T
4. F
5. F
6. F
7. T
8. F
9. F
10. T
11. F
12. T
13. F
14. T
15. T

16. T
17. T
18. F
19. F
20. T
21. T
22. F
23. T
24. T
25. T
26. F
27. F
28. T
29. pelvis
30. Caudal
31. suture
32. radiograph
33. dewclaw
34. cruciate
35. cartilage
36. joint
37. umbilical cord
38. medullary
39. marrow
40. periosteum
41. osteoblasts,
osteoclasts, osteocytes
42. Synovial
43. limbs
44. neck
45. inorganic, organic
46. Symphysis
47. Axial
48. bend
49. calcium

Self-Test 4

1. F
2. T
3. F
4. T
5. F
6. T
7. F
8. T
9. F
10. F

11. T
12. F
13. T
14. T
15. T
16. F
17. F
18. F
19. T
20. F
21. vasodilation
22. diastolic
23. shock
24. vena cava
25. contraction, one
26. anemia
27. autoimmune
28. shock
29. electrocardiograph
30. contracts
31. lungs
32. systemic
33. arterioles
34. red blood cells
35. elevated
36. capillaries
37. away from
38. infection
39. cellular
40. relaxation
41. failure

Self-Test 5

1. T
2. F
3. T
4. T
5. T
6. F
7. F
8. T
9. F
10. F
11. T
12. F
13. F
14. T



VETERINARY SCIENCE: PART 1

SELF-TEST ANSWERS

15. F
16. T
17. F
18. F
19. F
20. opens
21. pneumonia
22. Bronchus
23. pleura
24. Expiration
25. surfactant
26. oxygen
27. glottis
28. intercostal
29. alveoli
30. Bronchi
31. Adam's
32. pharynx
33. Sneezing
34. White

Self-Test 6

1. F
2. T
3. F
4. T
5. F
6. T
7. F
8. F
9. T
10. F
11. T
12. T
13. F
14. T
15. T
16. T
17. T
18. F
19. F
20. T
21. F
22. uncastrated, male
23. female
24. ureter
25. renal

26. drink
27. specific gravity
28. diarrhea, vomiting
29. renal
30. Transitional
31. urethra
32. kidneys
33. three
34. drink
35. urinary tract
36. bladder
37. constipation
38. minerals, acidic
39. Urethrostomy
40. stitch
41. smooth

Self-Test 7

1. F
2. T
3. F
4. T
5. T
6. F
7. T
8. F
9. F
10. T
11. F
12. T
13. F
14. F
15. T
16. F
17. T
18. F
19. T
20. T
21. colic
22. crown
23. incisors
24. epiglottis
25. villi
26. reticulum
27. abomasum
28. enamel
29. two

30. colon
31. liver
32. seizures
33. rumen
34. cecum, colon
35. frothy
36. Frothy
37. monogastric
38. starch

Self-Test 8

1. T
2. F
3. T
4. F
5. F
6. F
7. F
8. T
9. F
10. T
11. F
12. T
13. T
14. F
15. T
16. F
17. T
18. T
19. F
20. F
21. aesthetic
22. testes
23. prostate
24. third
25. Cortisone
26. peaks
27. uterus
28. estrus/
normal cycling
activity
29. 12
30. prolapsed
uterus/uterine prolapse
31. abdomen/body cavity
32. anestrus
33. placentomes
34. differentiation

35. progesterone
36. placenta/afterbirth
37. vulva, gloves
38. progesterone
39. oxytocin
40. prolactin

Self-Test 9

1. F
2. T
3. T
4. F
5. F
6. F
7. T
8. T
9. F
10. F
11. F
12. T
13. T
14. F
15. T
16. T
17. F
18. T
19. F
20. F
21. electrical
22. axon
23. synapse
24. inner
25. sensory
26. unpatterruzed
27. circling
28. Protozoa
29. Myglinated
30. ventrical
31. light
32. eyes
33. Polarization
34. reflex arc
35. cerebrum
36. myelogram
37. sclera
38. balance



VETERINARY SCIENCE: PART 1 SELF-TEST ANSWERS

Self-Test 10

1. F
2. T
3. F
4. T
5. F
6. F
7. T
8. F
9. T
10. F
11. T
12. F
13. F
14. T
15. F
16. F
17. T
18. T
19. T
20. F
21. Oxytocin
22. somatotropin
23. Prolactin
24. pituitary
25. hypothalamus
26. Insulin, glucagon
27. thyroid
28. D
29. blood
30. pituitary, gland
31. insipious
32. steroid
33. Prolactin
34. thyroid
35. glucose
36. calcium
37. anterior, posterior
38. thyroid
39. three, five
40. hypothalamus

Self-Test 11

1. T
2. F
3. T
4. T
5. F
6. F
7. F
8. T
9. F
10. T
11. F
12. T
13. T
14. F
15. F
16. F
17. T
18. T
19. F
20. F
21. T
22. F
23. F
1. antigenic, determinant
2. interstitial
3. spleen
4. neutrophils ,
macrophages
5. hypothalamus
6. Jenner
7. Smallpox
8. ataxic
9. lymph
10. secondary
11. purulent
12. smallpox
13. Passive
14. nose/nostril
15. Antihistamines
16. four
17. abscess
18. viral
19. colostrum
20. secondary



GRANTON TECH

VETERINARY

SCIENCE:

PART 1

1565

EXAMINATIONS FOR
DISTANCE EDUCATION
HOME STUDY
CORRESPONDENCE COURSE 1565

11 EXAMINATIONS

GRANTON TECH

exams@grantontech.com

COPYRIGHT © 2010 BY GRANTON TECH



VETERINARY SCIENCE: PART 1 EXAMINATIONS

EXAMINATION 1565-01	51-53
EXAMINATION 1565-02	54-56
EXAMINATION 1565-03	57-58
EXAMINATION 1565-04	59-60
EXAMINATION 1565-05	61-63
EXAMINATION 1565-06	64-66
EXAMINATION 1565-07	67-69
EXAMINATION 1565-08	70-72
EXAMINATION 1565-09	73-74
EXAMINATION 1565-10	75-77
EXAMINATION 1565-11	78-80



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-01

2. Too much blood sugar indicates which disease?

3. How many different types of amino acids are used to make proteins?

4. Give another name for the cell membrane.

5. Where is chromatin found within a cell?

6. Do mammals have an even or odd number of chromosomes?

7. Do enzymes function identically in all species?

8. How might cancer cells differ from that of a normally dividing cell?

9. List five mechanisms of cellular exchange.

10. List the five stages of mitosis.

Short Answer

11. Name the cell organ that produces proteins.

12. List two functions of carbohydrates in cells.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-01

13. Name the two nucleic acids.

14. Which cellular process combines smaller molecules into larger ones?

15. List three of the six components of extracellular fluid (EFC).

16. Chapter 1 discusses a breed of dog subject to dry eyes. Name the breed.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-02

2. Which of the four stomachs of a cow becomes displaced when a twisted stomach occurs?

3. What type of tissue lines the body's surface and openings?

4. What type of epithelial tissue lines the urinary tract?

5. What type of tissue is under attack in foot and mouth disease?

6. Name the hairlike extension from the nerve cell body that carries the nerve impulse.

7. After death, the body lacks energy to pump calcium back into the endoplasmic reticulum. Consequently, the body stiffens. Name this condition.

8. Why do light-colored horses have a higher incidence of melanoma than dark-colored horses?

9. Describe the shape of squamous cells.

10. Differentiate between tendons and ligaments.

11. List the three muscle types.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-02

12. List two involuntary muscle types.

13. List three types of neurons.

Short Answer

14. Describe cilia.

15. List four types of tissue.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-03

4. Does abduction occur when a body part is moved closer to or further away from the body?

5. Do teeth and bones appear light or dark on a radiograph?

6. What is the scapula?

Short Answer

7. What bone is most often broken in high-rise syndrome?

8. Mechanically speaking, which joint type is the simplest?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-04

2. Name one of the three types of protein found in plasma.

3. What purpose do heart valves serve?

4. Is the cranial vena cava referred to as inferior or superior in humans?

5. Which of the four heart chambers has the thickest wall?

6. Give another name for the sinoatrial node.

7. What sound does a systolic murmur make?

8. Is blood pressure higher in the arteries or veins?

9. Describe the electrocardiograph during an asystole condition.

Short Answer

10. Name three types of blood cells.

11. What cells begin the heartbeat and maintain regular heartbeat rhythm?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-05

2. Name the reflex action that occurs when there is an irritation in the nose.

3. What substance lines the lungs, making them easier to inflate?

4. What controls the rate of respiration?

5. What is the normal respiration rate for a dog?

6. What plays a more significant role in the control of respiration, oxygen or carbon dioxide?

7. What medical tool is used to evaluate breathing?

8. What species can develop a condition referred to as roaring?

Short Answer

9. How does panting cool an animal?

10. Give the average respiration rate of a horse.

11. List a normal respiration rate for a cow.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-05

12. What reflex helps remove foreign particles from the larynx and the trachea?

13. What type of lung sound is similar to a musical note?

14. Name the medication type given to open airways.

**VETERINARY SCIENCE: PART 1
EXAMINATION 1565-06**

1. Define all of the following terms:

bucks; does; dorsal; retro; peristalsis; urinary incontinence; spayed; ventral; serum; gout; mastitis; intravenous; isotonic; urinalysis; specific gravity; refractometer; free catch urine; azotemia; parvovirus; uremia; acute; chronic; subcutaneous; skin turgor.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-06

2. What tubelike structure connects the kidney to the bladder?

3. Do males or females have a higher incidence of urinary incontinence?

4. What breed of dog has a history of difficulty metabolizing uric acid?

5. What tool measures specific gravity?

6. What is the name of the test that evaluates urine?

7. What dietary component may be limited in animals with chronic renal failure?

8. Can azotemia result from dehydration?

9. What is the primary function of the renal system?

10. Differentiate between acute and chronic.

11. Name the two systems that control pH of blood.

12. List two symptoms of parvovirus.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-06

Short Answer

13. List two field tests used to evaluate hydration.

14. What does a reference range for a medical test infer?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-07

2. The following symptoms are characteristic of which equine condition: kicking at abdomen, rolling, lying down and standing up repeatedly, sweating?

3. Are cats carnivores or herbivores?

4. Which portion of the tooth lies above the gum line?

5. What structure covers the opening of the larynx?

6. What are the small fingerlike projections that line the intestine called?

7. What portion of the ruminant stomach has a honeycomb-type lining?

8. What portion of the ruminant stomach is called the true stomach?

9. List the pH level of the stomach.

10. Name three ruminants discussed in the text.

Short Answer

11. What is the main function of the colon?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-07

12. Why are horses (monogastric) able to digest large amounts of hay?

13. What is the purpose of the reticulum?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-08

2. What organ becomes infected in pyometra?

3. Name one species that exhibits induced ovulation.

4. In which trimester does the fetus experience the most rapid growth?

5. Which hormone released by the fetus stimulates parturition?

6. When does the peak of lactation occur in dairy cattle?

7. Does a dog's temperature rise or fall prior to whelping?

8. Can females continue to produce additional numbers of eggs throughout life?

9. List the four stages of the estrous cycle.

10. Describe a normal presentation in delivery of calves.

Short Answer

11. Name two species where both front and rear birth presentations are normal.

12. Name the only accessory sex gland in the male dog.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-08

13. What factor affects cycling in seasonal breeders?

14. List the three ovarian structures.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-09

2. Does a reflex occur with conscious thought?

3. Are the rod or cone cells of the eyes receptive to colors?

4. Can an underlying cause of epilepsy seizures be found?

5. How can humans contract listeriosis?

6. Name the two systems of the peripheral nervous system.

7. Name the junctions where nerve impulses are transmitted.

8. List the three regions of the brain.

9. List the four types of taste buds found on the tongue.

Short Answer

10. List the two main sections of the nervous system.

11. What nervous system condition can result in circling or lack of coordination?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-10

2. In general, is the endocrine system regulated by positive or negative feedback?

3. What hormone causes milk letdown?

4. Which hormone stimulates the development of the mammary gland?

5. What is the name for low blood sugar?

6. Which gland is the only one in the endocrine system that can be palpated?

7. Renin helps to regulate which vital sign?

8. What is somatotropin?

9. Which two hormones work in tandem to regulate blood sugar?

Short Answer

10. What molecule directly provides stimulation and growth of bone and cartilage?

11. Explain why insulin cannot be administered orally.

12. List the four chemical groups of hormones.



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-10

13. What analogy is used by the text to describe a hormone and the associated receptor?

14. Who identified hyperadrenocorticism?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-11

2. What is the typical life span of plasma cells?

3. Do larger or smaller molecules typically elicit the immune response?

4. What is the site of recognition on an antigen called?

5. What removes aged red blood cells from circulation?

6. What gland controls body temperature?

7. What type of molecule are antigens?

8. What human disease is closely associated with cowpox?

9. Who is credited for the first vaccination?

10. What two cells have the primary responsibility for phagocytizing antigens when first detected by the body?

11. Do naturally occurring molecules cause an immune reaction?

12. Do blood vessels dilate at the site of infection, causing reddening or inflammation?



VETERINARY SCIENCE: PART 1 EXAMINATION 1565-11

13. Why does fever aid in the fight against pathogens?

Short Answer

14. Why is bone marrow an essential part of the immune system?

15. Describe an anaphylactic reaction.

16. List two different types of vaccines.
