Animal Science Reviewer (101 Questions)

By Agriculture Review

1. What is defined as the Art, Science, and Industry of breeding, feeding, care and management, and the marketing and processing of animals and their products?

A) Veterinary Medicine

B) Animal Science

C) Zoology

D) Agronomy

2. What is the primary purpose of operating an animal enterprise?

A) Eradicating pests

B) Conserving native breeds

C) Obtaining profit

D) Developing new plant varieties

3. Which of the following describes the 'Art' aspect of Animal Science?

A) Systematic body of knowledge

B) Profitable marketing strategies

C) Prevention of animal diseases

D) Selection of animals largely on the basis of beauty and good looks

4. Which of the following is considered a disadvantage of animal production?

A) Animals improve soil fertility

B) Animal products are perishable

C) It reduces living expenses

D) It makes good use of farm waste

5. Approximately how much water does a single head of cattle need per day for cleaning and drinking?

A) 50 liters

B) 100 liters

C) 200 liters

D) 500 liters

6. Which of the following animal projects generally readily utilizes unskilled labor?

A) Cattle and sheep projects

B) Poultry and swine projects

C) Equine and dairy projects

D) Goat and carabao projects

7. Why is market outlet considered a crucial factor in successful animal enterprise operation?

A) It provides ample supply of water

B) It determines the wholesomeness of the environment

C) It aids in decision-making on the kind of animals to raise based on product demand

D) It eliminates the need for transportation facilities

8. What refers to the flesh obtained from farm animals used as food, including bones, blood, and connective tissues?

A) Offal

B) Meat

C) Carcass

D) By-products

9. What constitutes the clean, sound, edible part of the striated muscle of an animal?

A) Flesh

B) Sebum

C) Cerumen

D) Cartilage

10. What term refers to the amount of fat deposited between the muscle fibers?

A) Suint

B) Marbling

C) Yolk

D) Fleece

11. Which component of meat significantly influences its tenderness and juiciness?

A) Bone density

B) Blood volume

C) Marbling quality

D) Epidermal layer thickness

12. Which formed element of connective tissues represents around 20-25% of total body protein?

A) Elastin

B) Collagen

C) Reticulin

D) Myosin

13. Which of the following describes elastin?

A) A white, flinty protein

B) A yellow, elastic, branched tissue

C) Immature collagen

D) A non-striated muscle fiber

14. What formed element of connective tissues is also referred to as 'immature collagen'?

A) Reticulin

B) Elastin

C) Keratin

D) Actin

15. Which type of muscle is NOT under nervous control, such as the cardiac muscle?

A) Voluntary

B) Striated

C) Involuntary

D) Skeletal

16. Which muscle fibers contain numerous mitochondria and high levels of myoglobin?

A) White fibers

B) Red fibers

C) Yellow fibers

D) Non-striated fibers

17. What type of meat is produced by muscles with more red fibers?

A) White meat

B) Yellow meat

C) Red meat

D) Dark brown meat

18. What is the basic unit for muscle contraction?

A) Myoglobin

B) Sarcolemma

C) Myofibril

D) Fascicle

19. Under aerobic conditions, glucose is completely converted to CO_2 and H_2O, giving rise to a net of how many ATPs?

A) 8 ATPs

B) 24 ATPs

C) 36 ATPs

D) 38 ATPs

20. Under anaerobic conditions (oxygen-debt), only glycolysis operates. How many net ATPs are produced per mole of glucose degraded to lactic acid?

A) 2 ATPs

B) 6 ATPs

C) 8 ATPs

D) 24 ATPs

21. What is the color of myoglobin in fresh meat before extended exposure to air?

A) Bright red

B) Dark brown

C) Dark red

D) Pale pink

22. Which compound causes stale meat to appear dark brown?

A) Oxymyoglobin

B) Metmyoglobin

C) Lactic acid

D) Creatine kinase

23. What causes the permanent cross-bridge between actin and myosin, known as rigor mortis?

A) Increase in muscle pH

B) Depletion of ATP

C) Excess of oxygen

D) Breakdown of collagen

24. What is the approximate pH of muscle cells before death?

A) 5.4

B) 6.0

C) 6.8

D) 7.3

25. To what pH level do muscles progressively decline after death due to lactic acid formation?

A) 4.0 to 4.5

B) 5.4 to 5.6

C) 6.2 to 6.5

D) 7.0 to 7.3

26. When does the onset of rigor mortis typically occur post-mortem?

A) 1 to 2 hours

B) 4 to 8 hours

C) 10 to 24 hours

D) 36 to 48 hours

27. At what temperature range does the tenderizing process called 'Aging' or resolution of rigor readily take place?

A) -20°C to -10°C

B) 0°C to 15°C

C) 20°C to 25°C

D) 30°C to 40°C

28. Which of the following is true when comparing meat from mature animals to that of young animals?

A) Meat from mature animals is more watery

B) Meat from mature animals is lighter in color

C) Meat fibers of mature animals are coarser

D) Bones of mature animals are red and soft

29. Why is the meat of mature animals tougher than that of younger animals?

A) Greater supply of collagen in connective tissues

B) Higher levels of ATP after death

C) Increased myoglobin depletion

D) Lack of reticulin fibers

30. What characterizes the bones in the meat of young animals?

A) White and flinty

B) Porous and brittle

C) Red, soft, and cartilaginous

D) Yellow and calcified

31. What structure separates the two halves of a cow's udder and attaches it to the underside of the body?

A) Epimysium

B) Median supporting ligament

C) Perimysium

D) Escutcheon

32. What is the term for the area between the two hind legs at the back part of the cow's udder?

A) Fascicle

B) Corium

C) Escutcheon

D) Aponeurosis

33. Which of the following factors does NOT determine the size of the udder?

A) Breed

B) Number of lactations

C) Milk yield

D) Color of the animal's coat

34. What term defines eggs that are fertile and intended for embryo development?

A) Table eggs

B) Hatching eggs

C) Infertile eggs

D) Peewee eggs

35. Table eggs are generally known as:

A) Fertile eggs

B) Infertile eggs

C) Incubation eggs

D) Zygotes

36. Which essential nutrient is eggs richer in compared to milk?

A) Calcium

B) Iron

C) Vitamin C

D) Carbohydrates

37. Which bird lays white-shelled eggs with a blue tinge?

A) Guinea fowl

B) SC White Leghorn

C) Duck

D) Australorp

38. What is the standard weight range for a 'Large' commercial chicken egg?

A) 41-47 grams

B) 48-54 grams

C) 55-61 grams

D) 62 grams up

39. Which commercial egg classification corresponds to weights below 41 grams?

A) Medium

B) Small

C) Peewee

D) Extra Small

40. Which of the following is a characteristic of egg-type chickens?

A) Massive in body size

B) Late sexual maturity

C) Lay brown-shelled eggs

D) Exhibit early sexual maturity

41. Which breed is an example of an egg-type chicken?

A) Lancaster

B) Leghorn

C) Cochin

D) Hubbard

42. Which type of chickens are described as sluggish, massive in body size, and exhibiting late sexual maturity?

A) Egg type

B) Fancy type

C) Meat type

D) Dual-purpose type

43. Which of the following breeds belongs to the fancy type raised for aesthetic value?

A) Minorca

B) Peterson

C) Silkies

D) Mikawa

44. What are the two principal layers of the skin?

A) Myofibril and Sarcolemma

B) Dermis and Epidermis

C) Endomysium and Epimysium

D) Tendon and Fascia

45. Which layer of the skin is non-vascular and composed of squamous epithelium?

A) Corium

B) Dermis

C) Epidermis

D) Subcutaneous fat

46. What pigment provides protection against light in the skin?

A) Hemoglobin

B) Melanin

C) Keratin

D) Myoglobin

47. Vitamin D is formed in the skin from ergosterol by the action of what?

A) Infrared radiation

B) Ultraviolet radiation

C) Lactic acid

D) Sudoriferous glands

48. Where are permanent hairs located on a horse?

A) Flanks and belly

B) Foretop, mane, tail, and fetlock

C) Back and shoulders

D) Hooves and knees

49. What collective term encompasses both wool grease and suint found on wool?

A) Cerumen

B) Sebum

C) Yolk

D) Dandruff

50. What forms when the hairs of an animal's body converge to form hair streams and whorls?

A) Follicles

B) Cowlicks

C) Fleece

D) Tassels

51. What is the oily, semi-liquid secretion produced by the sebaceous glands?

A) Suint

B) Sweat

C) Sebum

D) Melanin

52. What specific kind of sebum is found in the ear to discourage insects?

A) Yolk

B) Cerumen

C) Suint

D) Lanolin

53. Which physiological state causes an animal's body temperature to vary directly with its environment?

A) Homeothermism

B) Poikilothermism

C) Endothermism

D) Hyperthermism

54. What are the principal seats of heat production in the animal body?

A) Lungs and trachea

B) Muscle and gland

C) Skin and hair follicles

D) Stomach and intestines

55. Which of the following farm animals have the lowest critical temperature and are best able to withstand cold?

A) Poultry and swine

B) Cattle and sheep

C) Horses and donkeys

D) Goats and rabbits

56. What term describes a fever or a disturbance where body temperature is over normal?

A) Hypothermia

B) Anastomosis

C) Pyrexia

D) Homeostasis

57. What happens to a horse if its skin is entirely varnished?

A) It prevents parasitic infections

B) It induces immediate sleep

C) It causes death due to extreme heat loss

D) It increases sweat production

58. What fiber is sourced from the Angora goat?

A) Cashmere

B) Mohair

C) Fleece

D) Suint

59. Which of the following animals provides Camel's hair?

A) Angora rabbit

B) Reindeer

C) Alpaca

D) Mink

60. What type of hair in a sheep's ancestor is coarse and eliminated by selective breeding?

A) Downy hair

B) Fleece

C) Guard hair or 'beard'

D) Kemp

61. What is the classification of fine wool used for clothing, with a diameter of 10-40 microns?

A) Carpet wool

B) Apparel wool

C) Mohair

D) Cashmere

62. What is the diameter range of human hair?

A) 1 to 16 microns

B) 24 to 29 microns

C) 40 to 100 microns

D) 120 to 180 microns

63. Which group of the skeleton includes structures located externally, such as scales, feathers, hairs, and hoofs?

A) Appendicular skeleton

B) Visceral skeleton

C) Endoskeleton

D) Exoskeleton

64. Which of the following is part of the axial skeleton?

A) Bones of the limbs

B) Vertebral column

C) Os penis

D) Os cordis

65. The appendicular skeleton provides form to the body and is primarily responsible for:

A) Protecting the brain

B) Locomotion

C) Digestion

D) Blood circulation

66. Which of the following bones is an example of a splanchnic or visceral skeleton?

A) Skull

B) Ribs

C) Os cordis of the ox

D) Sternum

67. Which mammal species completely lacks a baculum (os penis)?

A) Gorilla

B) Chimpanzee

C) Dog

D) Horse

68. Bones that act as supporting columns and levers, such as those found in the limbs, are called:

A) Ossa brevia

B) Ossa plana

C) Ossa longa

D) Ossa irregularia

69. What type of bones diffuse concussions and diminish friction, such as the carpus and tarsus?

A) Short bones

B) Flat bones

C) Long bones

D) Irregular bones

70. What are pneumatic bones?

A) Bones expanded in two directions

B) Bones of irregular shape

C) Bones with air-spaces called sinuses

D) Bones that make up the appendicular skeleton

71. In the cranial vault, what is the 'lamina interna' or 'tabula vitrea'?

A) An outer layer of ordinary compact substance

B) A variable amount of spongy bone

C) An inner layer of very dense bone

D) A hollow space for blood vessels

72. What is the membrane that develops the bone, especially at the shaft?

A) Endosteum

B) Diploe

C) Periosteum

D) Cartilage

73. What is the soft substance occupying the interstices of the spongy bone and the medullary cavity?

A) Periosteum

B) Medulla ossium or marrow

C) Compact substance

D) Cerumen

74. Which type of bone marrow is mostly found in young animals and contains blood-forming substance?

A) Yellow marrow

B) Red marrow

C) White marrow

D) Spongy marrow

75. Which science involves the description of the organs of circulation of the blood and lymph?

A) Osteology

B) Myology

C) Angiology

D) Neurology

76. Why is the blood circulatory system referred to as a closed system?

A) It lacks a definite circuit

B) It does not interact with the lymphatic system

C) The liquid portion flows through a definite circuit

D) It only circulates in the thorax

77. Why is the left side of the mammalian heart considered the arterial side?

A) It receives deoxygenated blood

B) It pumps blood to the lungs

C) It receives oxygenated blood from the lungs

D) It has thinner walls than the right side

78. What is the primary function of the complete septum and the four valves in the mammalian heart?

A) To prevent backflow of blood

B) To mix venous and arterial blood

C) To generate electrical impulses

D) To store oxygenated blood

79. What is the valve on the left side of the heart called?

A) Tricuspid valve

B) Bicuspid or mitral valve

C) Pulmonary valve

D) Aortic valve

80. What fibro-serous sac encloses the heart?

A) Endocardium

B) Myocardium

C) Pericardium

D) Epicardium

81. Which blood vessels carry blood away from the heart?

A) Veins

B) Arteries

C) Venules

D) Lymphatics

82. What are the smallest blood vessels involved in the transfer of oxygen and nutrients to cells?

A) Arterioles

B) Venules

C) Veins

D) Capillaries

83. What component makes up 90% of blood plasma?

A) Protein

B) Water

C) Red blood cells

D) Platelets

84. Which blood cells are responsible for delivering oxygen to cells and containing hemoglobin?

A) Erythrocytes

B) Leukocytes

C) Thrombocytes

D) Lymphocytes

85. What mineral does hemoglobin contain to help carry oxygen?

A) Calcium

B) Phosphorus

C) Iron

D) Magnesium

86. What cell fragment found in blood plays a critical role in clotting?

A) Erythrocyte

B) Leukocyte

C) Thrombocyte (Platelet)

D) Macrophage

87. Which system drains fluid from the body and serves as an important defense mechanism against infection?

A) Digestive System

B) Lymphatic System

C) Endocrine System

D) Respiratory System

88. Which of the following is an example of a ruminant animal?

A) Swine

B) Horse

C) Rabbit

D) Sheep

89. What is the mass of regurgitated ingesta called during the process of rumination?

A) Chyme

B) Cud (bolus)

C) Feces

D) Chyle

90. What specific component is NOT found in the saliva of ruminants?

A) Water

B) Urea

C) Salivary amylase

D) Mucin

91. Which chamber of the ruminant stomach is known as the 'paunch' and serves as a large anaerobic fermentation vat?

A) Rumen

B) Reticulum

C) Omasum

D) Abomasum

92. What is the normal rumen content capacity of a 1000 lb cow?

A) 5-10 gallons

B) 10-15 gallons

C) 25-30 gallons

D) 55-60 gallons

93. What is the maximum rumen capacity of a 150 lb ewe?

A) 1-3 gallons

B) 5-10 gallons

C) 15-20 gallons

D) 25-30 gallons

94. Approximately how many bacteria are present per gram of fluid in the rumen?

A) 100,000

B) 1 million

C) 10 million

D) 100 million

95. Which chamber of the ruminant stomach is called the 'honeycomb' and catches ingested hardware?

A) Rumen

B) Reticulum

C) Omasum

D) Abomasum

96. Which chamber is known as the 'manyplies' or 'book' and functions mainly in water absorption?

A) Rumen

B) Reticulum

C) Omasum

D) Abomasum

97. Which part of the ruminant digestive system is the true, glandular stomach where pepsin and HCl mix with food?

A) Reticulum

B) Rumen

C) Omasum

D) Abomasum

98. What are the highly vasculated, finger-like projections covering the inside of the small intestine to increase absorptive surface area?

A) Papillae

B) Cilia

C) Villi

D) Microtubules

99. Which animal is classified as a monogastric and has a digestive system anatomically and physiologically similar to humans?

A) Cow

B) Sheep

C) Swine

D) Horse

100. Horses, donkeys, and rabbits digest high-fiber plant material using microbes in an enlarged cecum. What are they called?

A) Ruminants

B) Hindgut fermenters

C) Foregut fermenters

D) Avian digesters

101. What condition is caused by the abnormal inflation or distension of the rumen due to accumulated methane and carbon dioxide gases?

A) Colic

B) Bloat

C) Acidosis

D) Founder

Answer Key

1. B
2. C
3. D
4. B
5. C
6. B
7. C
8. B
9. A
10. B
11. C
12. B
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