

**2015 Miniboard Exam**  
**Large Animal Blank**

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### Large Animal

1. Which of the following is NOT associated with *Clostridium perfringens* type A enterotoxemia in lambs?
  - a. Pulmonary edema
  - b. Hemoglobinuric nephrosis
  - c. Centrilobular hepatic necrosis
  - d. Bilaterally symmetric malacia of the middle peduncle
2. In pigs, an immunohistochemical stain that labels melanomacrophages but NOT melanocytes is:
  - a. PNL2
  - b. Lysozyme
  - c. Alpha-1 antitrypsin (A1AT)
  - d. Ionized calcium binding adaptor molecule-1 (Iba-1)
3. The progressive equine movement disorder, “shivers”, is associated with which of the following?
  - a. Pars intermedia adenoma
  - b. Distal vagus nerve degeneration
  - c. Cerebellar Purkinje cell degeneration
  - d. Cervical spinal cord axon degeneration
4. Which of the following is seen in Friesian horses with megaesophagus?
  - a. Smooth muscle degeneration
  - b. Smooth muscle hypertrophy
  - c. Loss of myenteric plexi
  - d. Fibrosis
5. Which of the following cause loss of spinal ventral motor neurons and micromyelia in the bovine fetus?
  - a. Border disease virus
  - b. Schmallenberg virus
  - c. Bluetongue virus
  - d. Akabane virus
6. Which of the following is NOT associated with equine coronavirus?
  - a. Necrotizing enteritis
  - b. Proliferative enteritis
  - c. Intestinal microthrombosis
  - d. Hyperammonemic encephalopathy
7. Which of the following is NOT a malformation seen in Dandy-Walker syndrome in calves?

- a. Enlarged caudal fossa
  - b. Cerebellar vermal aplasia
  - c. Herniation of the cerebellar vermis
  - d. Cystic dilation of the fourth ventricle
8. Which of the following is the receptor for *Mannheimia haemolytic* leukotoxin in cattle?
- a. CD18
  - b. MHC II
  - c. FGF $\alpha$ -2
  - d. ICAM-1
9. Which of the following is NOT found in pigs with *Lawsonia intracellularis*-associated proliferative enteropathy?
- a. Diarrhea
  - b. Hypoproteinemia
  - c. Necrotizing enteritis
  - d. Intestinal crypt hyperplasia
10. Which of the following have NOT been found in equine sarcoids?
- a. Bovine papillomavirus-1
  - b. Bovine papillomavirus-2
  - c. Bovine papillomavirus-3
  - d. Bovine papillomavirus-13
11. Hyperinsulinemia in horses with equine metabolic syndrome is associated with which of the following lesions?
- a. Pituitary adenoma
  - b. Osteochondrosis
  - c. Pancreatitis
  - d. Laminitis
12. Which of the following is NOT found in pigs with acute swine dysentery following oral inoculation with *Brucyospora* spp?
- a. Decreased expression of sulfated mucins
  - b. Decreased expression of MUC5AC
  - c. Decreased expression of MUC4
  - d. Bacteria within goblet cells
13. Caterpillar setae have NOT been found where in mares with equine amnionitis and fetal loss syndrome?
- a. Liver
  - b. Spleen

- c. Large colon
  - d. Glandular stomach
14. In cattle with bovine spongiform encephalopathy, the brain nuclei with the most conspicuous neuronal vacuolation are the:
- a. Red nuclei
  - b. Vestibular nuclei
  - c. Inferior olivary nuclei
  - d. Caudal brainstem nuclei
15. In goats, the joint most commonly and severely affected in small ruminant lentivirus-induced arthritis is the:
- a. Carpus
  - b. Coxofemoral
  - c. Atlantooccipital
  - d. Tarsometatarsus
16. In the Friesian horse, aortic rupture occurs in/near the:
- a. Aortic arch
  - b. Sinuses of Valsalva
  - c. Ligamentum arteriosum
  - d. Junction of cranial mesenteric artery
17. Which of the following is caused by *Tunga penetrans* in cattle?
- a. Proliferative and ulcerative dermatitis
  - b. Membranous glomerulonephritis
  - c. Vegetative valvular endocarditis
  - d. Portal hepatocellular necrosis
18. Which of the following is NOT expressed in either epithelial or mesenchymal proliferations in ovine pulmonary adenocarcinoma caused by jaagsiekte sheep retrovirus?
- a. p63
  - b. CD117
  - c. Desmin
  - d. Cytokeratin 14
19. Which of the following is a lesion found in quassinoid toxicosis in horses?
- a. Lenticular sclerosis
  - b. Fibrous osteodystrophy
  - c. Adrenocortical necrosis
  - d. Vesiculobullous dermatitis

20. Which of the following is a lesion found in pigs with ryanodine receptor defect?
- Skeletal muscle necrosis
  - Gastric ulceration
  - Megaesophagus
  - Hepatic lipidosis
21. Which of the following is NOT found in freemartinism in cattle?
- Hypoplastic uterus
  - Clitoral enlargement
  - Vestigial seminal vesicles
  - Communication between vagina and uterus
22. White snake root (*Eupatorium rugosum*) toxicity in goats causes:
- Cerebral edema
  - Glomerulonephritis
  - Myocardial necrosis
  - Centrilobular hepatic necrosis
23. Which of the following is not upregulated in sheep infected with *Anaplasma phagocytophilum*?
- BCL2
  - BIRC3
  - CFLAR
  - TNF- $\alpha$
24. Which of the following is most likely to present as multiple cutaneous lesions in horses?
- Cutaneous T-cell lymphoma
  - Diffuse large B-cell lymphoma
  - Anaplastic large T-cell lymphoma
  - T-cell rich, large B-cell lymphoma
25. In Arabian foals with hereditary cerebellar cortical abiotrophy, the cell population most affected is:
- Granule cells
  - Purkinje cells
  - Bergmann glia
  - Cerebellar nuclei neurons

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### Large Animal Key

1. D VetPath 2014;51(3):626
2. D VetPath 2015;52(1):87
3. C VetPath 24 Feb 2015 online
4. B VetPath 2014;51(5):979
5. B VetPath 26 Nov 2014 online
6. B VetPath 03 Feb 2015 online
7. C JKP Vol.1:314
8. A VetPath 2014;51(2):402
9. B VetPath 2014;51(2):467
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12. B VetPath 2014;51(6):1098
13. B VetPath 2014;51(6):1120
14. B Vandeveld, et al. Veterinary Neuropathology. 1<sup>st</sup> ed. 2012, p. 183
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16. C VetPath 2015;52(1):152
17. A JVDI 2015;27(1):80
18. B JCompPath 2014;150(2-3):138
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