2014 Miniboard Exam   **Candidate**
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Clinical Pathology Blank

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1. What percentage of normal, healthy animals can be expected to have a measured clinical pathology value above the reference range for a particular assay?
   a. 0.5
   b. 1.0
   c. 2.5
   d. 5.0

2. Which of the following does <u>NOT</u> support a diagnosis of regenerative anemia?
   a. ↓ MCHC
   b. ↓ RDW
   c. ↑ MCV
   d. ↑ CRP

3. Evaluate the following clinical pathology data from a horse and select the *most likely* diagnosis from the list below.

Serum Calcium	↑
Serum Phosphorus	↓

   a. Osteolytic bone lesion
   b. Hypoparathyroidism
   c. Hypervitaminosis D
   d. Renal failure

4. Which pattern of hemostasis test results is *most* supportive of a clinical diagnosis of acquired vitamin K deficiency in a dog?

	a	b	c	d
Platelet count	N	↓	N	N
BMBT	N	↑	N	↑
APTT	N	↑	↑	↑
PT	↑	↑	↑	↑
TT	N	↑	N	↑
FDP	N	↑	N	N

5. All of the following cause platelet hyporesponsiveness EXCEPT ___.
   a. Uremia
   b. Cephalosporins
   c. Nephrotic syndrome
   d. Paraproteinemia of plasma cell myeloma

6. Evaluate the following clinical pathology data from a dog and select the *most likely* diagnosis from the list below.

Folate	↑
Cobalamin (B$_{12}$)	↓
TLI	N

   a. Exocrine pancreatic insufficiency
   b. Proximal small intestinal disease

    c. Distal small intestinal disease
    d. Bacterial overgrowth

7. Evaluate the following results of a low-dose dexamethasone suppression test in a dog and select the *most likely* diagnosis from the list below.

	Cortisol (ug/dL)		
	Pre-dex	4h-post	8h-post
Reference	0.5-6.0	<1.4	<1.4
Patient	5.0	1.0	3.5

    a. Pituitary-dependent hyperadrenocorticism
    b. Functional adrenal tumor
    c. Hypoadrenocorticism
    d. Healthy (normal)

8. Which of the following is *least* consistent with a clinical diagnosis of canine primary hypothyroidism?
    a. ↑TSH
    b. ↓MCHC
    c. ↑cholesterol
    d. ↓creatine kinase

9. Which of the following leukogram findings is *least* persistent in chronic hyperadrenocorticism?
    a. Lymphopenia
    b. Monocytosis
    c. Neutrophilia
    d. Eosinopenia

10. In multicentric (enzootic) lymphoma of cattle infected with bovine leukemia virus, neoplastic cells are of what type?
    a. $CD5^+$ B cells
    b. $CD4^+$ T cells
    c. $CD8^+$ T cells
    d. γδ T cells

11. The following panel is *least* consistent with which of the diagnoses below?

Blood pH	PCO_2	TCO_2
↑	↑	↑

    a. Ovine esophageal obstruction ("choke")
    b. Ovine blow fly (*Lucilia cuprina*) infection
    c. Bovine abomasal displacement
    d. Bovine renal disease

12. All of the following cause an increased anion gap EXCEPT ___.
    a. Hyperalbuminemia
    b. Hypercalcemia
    c. Lactic acidosis
    d. Alkalemia

13. ___ causes hyperkalemia by shifting potassium from the intracellular fluid compartment to the extracellular fluid compartment.
    a. Secretory diarrhea in calves
    b. Urethral obstruction in cats
    c. Insulin therapy in dogs
    d. Polyuria in horses

14. An increased albumin:globulin ratio is most consistent with ___.
    a. Failure to drink colostrum
    b. Antigenic stimulation
    c. Renal proteinuria
    d. Hemorrhage

15. Of the following, which is the best indicator of biliary disease in birds?
    a. Gamma glutamyl transferase
    b. Sorbitol dehydrogenase
    c. Alkaline phosphatase
    d. Biliverdin

16. Which of the following is a *negative* acute phase protein?
    a. α_1-antitrypsin
    b. α_2-macroglobulin
    c. α-1 apolipoprotein
    d. α_1-acid glycoprotein

17. The most likely cause of decreased serum bile acid concentration in a dog is ___.
    a. Hepatic failure
    b. Portosystemic shunt
    c. Distal small intestinal disease
    d. Proximal small intestinal disease

18. Which of the following is *most* likely to cause alkalinuria?
    a. Hypochloremic metabolic alkalosis
    b. Distal renal tubular acidosis
    c. Furosemide therapy
    d. Hypokalemia

19. The predominant circulating lipoprotein is HDL in all of the following species EXCEPT the ___.
    a. Pig
    b. Cat
    c. Dog
    d. Bird

20. Which of the following effusions is _most_ consistent with a diagnosis of feline infectious peritonitis?

	TP (g/dL)	TNCC (x 10^3/uL)	Physical features
a.	2.4	8.1	Cloudy, white
b.	1.8	1.4	Cloudy, yellow
c.	2.2	5.1	Hazy, yellow
d.	2.5	4.3	Hazy, yellow

21. In the oral glucose tolerance test, failure to return to baseline within the expected time is consistent with all of the following diagnoses EXCEPT ___.
    a. Hyperadrenocorticism
    b. Hepatic insufficiency
    c. Diabetes mellitus
    d. Hypothyroidism

22. All of the following tend to cause neutrophilic pleocytosis on cytologic examination of cerebrospinal fluid EXCEPT ___.
    a. Meningioma
    b. Feline infectious peritonitis
    c. Eastern equine encephalitis
    d. Necrotizing meningoencephalitis

23. Which of the following causes hypermagnesemia?
    a. Canine hypoparathyroidism
    b. Feline diabetes mellitus
    c. Bovine grass tetany
    d. Ovine renal failure

24. Of the following, which finding provides the strongest evidence for a diagnosis of hypoadrenocorticism in a dog?
    a. Hypocalcemia
    b. Lymphocytosis
    c. Hyperglycemia
    d. Na^+/K^+ ratio of 22:1

25. Which of the following conditions is associated with both increased serum iron levels, and decreased serum ferritin concentration?
    a. Glucocorticoid excess in the horse
    b. Glucocorticoid excess in the dog
    c. Chronic inflammation
    d. Hemolytic anemia