

EUROPEAN COLLEGE OF VETERINARY PATHOLOGISTS

SMALL (LARGE, EXOTIC etc...) DOMESTIC ANIMAL PATHOLOGY

Time frame: 1.5 hours (35 questions)

EXAMINATION NOTES - PLEASE READ CAREFULLY BEFORE STARTING THE EXAM!

This section of the exam tests knowledge and understanding in SMALL (LARGE, EXOTIC etc...) DOMESTIC ANIMAL PATHOLOGY by MULTIPLE CHOICE and SHORT ANSWER questions. The format of the questions varies.

For MULTIPLE CHOICE questions you are required to identify only ONE statement. Questions are of 3 distinct formats:

“CORRECT”: you are asked to identify the ONE CORRECT statement,
“NOT CORRECT”: you are asked to identify ONE statement which is NOT CORRECT,

OPEN FORMAT: you are asked to select the ONE correct answer to the question.

Please provide your answers by crossing (X) in the corresponding boxes ONLY in the single colored sheet provided with your exam. Return this sheet and your answer booklet to the examiners at the end of the examination.

For SHORT ANSWER questions you may be asked to LIST features, to DESCRIBE by a short piece of text, to MATCH between features or to FILL IN a table... One cell to fill in a table indicates one answer unless specifically otherwise mentioned.

For SHORT ANSWER questions provide your answers directly and ONLY in the exam booklet.

READ THE QUESTIONS CAREFULLY!

ENTER YOUR CANDIDATE NUMBER ON EACH PAGE OF THE BOOKLET AND IN THE SINGLE COLORED ANSWER SHEET

Small animals

1. A 5 year old Weimaraner with a history of fever, anorexia and severe lameness associated with pain and swelling of the metaphyseal regions of long bones is euthanized and submitted for necropsy. Which histopathological feature do you need to identify in order to confirm the diagnosis of metaphyseal osteopathy?

- ☐ A. abundant osteoid deposition
☐ B. osteoblasts proliferation
☒ C. suppurative inflammation
☐ D. absence of osteoclasts

Correct answer: C

Sources: J&K, 6th ed, Vol 1, p105-106.

2. **MATCH** the following autoimmune skin diseases of dogs with their corresponding molecular target.

SKIN DISEASE	MOLECULAR TARGET
Paraneoplastic pemphigus	4
Pemphigus vulgaris	3
Epidermolysis bullosa acquisita	5
Linear Ig-A disease	1
Bullous pemphigoid	2

MOLECULAR TARGET

1. Type XVII collagen (extracellular domain)
2. Type XVII collagen (transmembranous form)
3. Desmoglein 3
4. Desmoplakin
5. Type VII collagen (non-collagenous domain)

Answers in blue

Sources: J&K, 6th ed, Vol 1, p601-604.

Large animals

1. Which **ONE** of the following statements regarding intestinal disease in horses is **NOT CORRECT**?

- ☐ A. *Rhodococcus equi* causes necrosis and ulceration.
- ☐ B. *Ehrlichia risticii* causes congestion and edema.
- ☒ C. *Helicobacter equorum* causes lymphoid proliferation.
- ☐ D. *Salmonella typhimurium* causes fibrin exudation and hemorrhage.

Correct answer: C

Sources: McGavin, p368-369.

Equine Vet J. 2007, 39(4): 370-2. Acute in vivo interaction of *Helicobacter equorum* with its equine host.

2. A young calf during summer is presented with initial conjunctivitis with progresses to ulcerative keratitis. No other lesions are detected. At the same time up to 50% of the cattle in the farm are affected by the same lesion. Which agent is most likely the cause of the lesion?

- ☒ A. *Moraxella bovis*
- ☐ B. *Chlamydia psittaci*
- ☐ C. Bovine herpesvirus type 1
- ☐ D. *Aspergillus fumigatus*

Correct Answer: A

Sources: J&K, 6th ed, Vol 1, p440.

Exotics

1. Which **ONE** of the following statements regarding ovarian carcinoma in jaguars is **CORRECT**?

Ovarian carcinoma

- ☐ A. is usually unilateral
☐ B. is not associated with significant mortality of the affected animals
☐ C. can spread along the uterine horn
☒ D. consists of cells arranged in papillae

Correct answer: D

Sources: *Pathology of Wildlife and Zoo Animals. 1st ed. Karen A. Terio, Denise McAloose, Judy St. Leger, Academic press, 2018. P279.*

2. Regarding psittacine beak and feather disease virus, FILL in the table below.

	Form of disease	Tissue affected	Main lesion in this organ
Adult cockatoos	Chronic	Feathers	Dystrophy
Budgerigars	Acute	Lymphoid tissue	Atrophy
African grey parrots	Peracute	Liver	Necrosis

Answers in blue

Source: *Pathology of Aviary and Pet Birds, Schmidt et al., p134.*

Laboratory animals

1. Which **ONE** of the following statements regarding proliferative lesions in the adrenal medulla of aging Wistar and Sprague-Dawley rats is **CORRECT**?

- ☐ A. They are more common in female than in male rats.
- ☒ B. Ganglioneuromas are commonly associated with pheochromocytomas.
- ☐ C. Ganglioneuromas consist mainly of chromaffin cells.
- ☐ D. Pheochromocytomas contain abundant multipolar ganglion cells.

Correct answer: B

Sources: Pace et al, *Tox Path* 2002, 30: 492-500.

2. Which **ONE** of the following statements regarding pathology of experimental aerosol Zaire Ebolavirus infection in rhesus macaques is **NOT CORRECT**?

- ☐ A. There is early fibrin deposition in the splenic white pulp.
- ☐ B. There is superficial dermal vasculitis.
- ☒ C. The liver is histologically unremarkable.
- ☐ D. There is massive early infection of the respiratory lymphoid tissue.

Correct answer: C

Sources: Twenhafel et al., 2012. *Vet Pathol* 50(3): 514-529.

Poultry

1. Which **ONE** of the following statements regarding avian mycobacteriosis in poultry is **NOT CORRECT**?

- ☐ A. The disease is most commonly caused by *M. avium*.
- ☐ B. Classical tubercles are rare in Columbiformes.
- ☒ C. Pigeons are resistant.
- ☐ D. The disease is associated with atrophy of the ovaries.

Correct answer: C

Sources: *Avian diseases* 49, 442-445, 2005.

2. You diagnose necrotic enteritis in a broiler and send samples for toxin typing. Which toxin is most likely the one responsible for the lesion?

- ☐ A. A toxin
- ☒ B. NetB toxin
- ☐ C. B1 toxin
- ☐ D. E toxin

Correct Answer: B

Source: *Timbermont et al. Necrotic enteritis in broilers: an updated review the pathogenesis., Avian Pathol. 2011 Aug;40(4):341-7. Review*