



The Royal College of Pathologists

Pathology: the science behind the cure

Part 1 examination

Veterinary Pathology: Second paper- Laboratory Animals

Tuesday 23 September 2008

Candidates must answer FOUR questions ONLY

Time allowed: 3 hours

1. Write short notes on the following topics:-
 - a. Kennel cough complex
 - b. Sialodacryoadenitis in rats
 - c. *Pasteurella multocida* infection in rabbits

2.
 - a. Name the herpes virus infections of non-human primates that have zoonotic or anthroozoonotic potential. Describe the macroscopic and histopathological lesions encountered in non-human primates with these infections and list ways in which the diagnosis can be confirmed.

 - b. Name the pox virus infections of non-human primates that have zoonotic potential and describe the macroscopic and histopathological lesions encountered in non-human primates with these infections.

3. Briefly describe hyperplastic and neoplastic lesions arising in the mouse ovary. Discuss the aetiology of ovarian tumours in mice.

Please turn over for Questions 4 & 5

4. Write short notes on the following:
 - a. Cardiac vasculitis in dogs
 - b. Nephroblastoma and mesenchymal tumour in the rat kidney
 - c. Subcutaneous tumours associated with microchips in rodents

5. Describe in rodents a) the effects of a severe (e.g. 50%) food restriction over a period of 2 weeks and b) the effects of a restricted access to food over two years compared to those on unlimited food intake. Highlight the problems that these effects may cause on toxicity and carcinogenicity studies respectively.



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Part 1 examination

Veterinary Pathology: Second paper - Laboratory animals

Tuesday 25 September 2007

Candidates must answer FOUR questions ONLY

Time allowed: 3 hours

- 1 Give an account of the spontaneous lesions of the anterior structures (including cornea, ciliary body, lens and iris) of the eye of the laboratory mouse. Outline important methodological considerations.
- 2 Write an account of spontaneous and induced lesions of the urinary bladder of dogs
- 3 Write notes on THREE of the following:
 - a. Mucoid enteropathy in rabbits
 - b. *Entamoeba histolytica* in non-human primates
 - c. Canine parvovirus
 - d. Proliferative ileitis in hamsters

Please turn over for Questions 4 and 5

- 4 Discuss the range of induced non-neoplastic lesions encountered in the mucosa of the rat nasal cavity.

- 5 Write short notes on THREE of following:
 - a. Biliary tumours in rats
 - b. Bronchiolo-alveolar tumours in mice
 - c. Sertoliform tumours in rats
 - d. Granulocytic tumours in mice



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Part 1 examination

Veterinary Pathology (laboratory animals): Second paper

Tuesday 19 September 2006

Candidates must answer FOUR of the following questions ONLY

Time allowed: 3 hours

- 1 Write short notes on three of the following:
 - i) Mouse hepatitis virus
 - ii) Canine herpesvirus
 - iii) Measles virus infection in non-human primates
 - iv) Cytomegalovirus in non-human primates.

- 2 Write short notes on three of the following:
 - i) Cataracts
 - ii) Vitamin E deficiency in guinea pigs
 - iii) Hyaline droplets in rat kidneys
 - iv) Endometrial hyperplasia in mice.

- 3 Discuss the range of lesions that may affect the cardiovascular system of dogs. Comment on biomarkers that may be useful in assessing the development of cardiovascular lesions.

- 4 Give an account of spontaneous proliferative changes of the haematopoietic system in laboratory mice used in routine toxicity studies. Describe in detail how these changes can be differentiated.

Please turn over for Question 5

- 5 Discuss the pathological changes that occur commonly in the rodent hepatobiliary tract in one-month toxicity studies. Briefly comment on further histological techniques that could be used to confirm the nature of the changes.