

ROYAL CIVIL SERVICE COMMISSION
CIVIL SERVICE COMMON EXAMINATION (CSCE) 2011
EXAMINATION CATEGORY: TECHNICAL
PART III: SUBJECT SPECIALIZATION PAPER FOR BVSC & AH

Date : 30/11/2011
Total Marks : 100
Examination Time : 2.5 Hrs
Reading Time : 15 Minutes (prior to examination time)

INSTRUCTIONS TO THE EXAMINEE

Please read the following instructions carefully before writing the answers. There are 10 pages in total including the instructions. Make sure you have the complete set.

- i. The question paper is divided into ***Part A*** and ***Part B***.
Each part carries 50 marks.
- ii. ***Part A*** is further divided into **2 Sections**:
 - a) ***Multiple choice (30 questions)***
 - b) ***Short questions (4 questions)***Each multiple choice question carries 1 mark and each short question carries 5 marks.
All questions in Part A are **compulsory**.
- iii. ***Part B*** consists of 2 case studies out of which you are required to attempt only **one** as per your choice. Each question carries equal marks.
- iv. All answers must be written on the answer sheet provided separately including the multiple choice answers.

PART A

Section a: Multiple choice (30 questions)

30 Marks

1. In lambs, which one is most affected in Type “O” Foot and Mouth Disease?
 - A. Feet
 - B. Teats
 - C. Heart
 - D. Mouth
2. Which of these best describes the consequences of ischemia?
 - A. Septic shock
 - B. Brisket disease
 - C. Myxedema
 - D. Tissue necrosis
3. Which of these animals is most likely to be affected by Post-partum dysgalactia syndrome (PPDS)?
 - A. Alpaca (*Vicugna pacos*)
 - B. Pig (*Sus scrofa*)
 - C. Guinea pig (*Cavia porcellus*)
 - D. Sheep (*Ovis aries*)
4. Which of these is a gold standard test for laboratory confirmation of rabies?
 - A. Direct Fluorescent Antibody (DFA) test
 - B. Complement fixation test (CFT)
 - C. Indirect Fluorescent Antibody (IFA) test
 - D. Virus neutralization test (VNT)
5. Which of these defines Funiculitis?
 - A. Inflammation of seminal vesicle
 - B. Inflammation of spermatic cord
 - C. Inflammation of hair follicles
 - D. Inflammation of prostate
6. Name the scientific technique in molecular biology where cDNA (amplicons) are produced?
 - A. Western Blot
 - B. Polymerase Chain Reaction
 - C. Baermann technique
 - D. DIVA test

7. A farmer presents a cow with intense and prolonged estrus behavior and complains of nymphomania. On rectal palpation, you suspect ovarian cyst. Which of the following would you recommend?
- A. Buserelin acetate
 - B. Estradiol benzoate
 - C. PGF 2α
 - D. Oxytocin
8. Which of this disease is eradicated from the face of the earth?
- A. Crimean-Congo hemorrhagic fever
 - B. Rinderpest disease
 - C. Marburg hemorrhagic fever
 - D. Eastern equine encephalitis
9. A young dog is presented to you with alopecia around eyes and forehead, muzzle, lower legs and feet without pruritus. Your tentative diagnosis is:
- A. Sarcoptic Mange
 - B. Flea Allergy Dermatitis
 - C. Demodectic Mange
 - D. Inhalant allergy
10. Which of the following is the most appropriate preservative for FMD samples such as vesicles and tongue epithelium?
- A. 10% Formaldehyde
 - B. 20% Citrate-phosphate-dextrose
 - C. 15% Citric acid
 - D. 50% Glycerol saline
11. Which of the following is the most appropriate size for collection of blood from cutaneous ulnar or brachial vein in poultry?
- A. 18 G
 - B. 21 G
 - C. 16 G
 - D. 23 G

12. What would be the most appropriate treatment for a dog which has accidentally licked cythion and is showing signs of toxicity?
- A. Copper sulfate
 - B. Aluminum sulfate
 - C. Atropine sulfate
 - D. Vitamin D
13. Which strain of bird flu virus has killed over 300 people worldwide and is circulating in Asia since 2003?
- A. H5N2
 - B. H3N1
 - C. H2N3
 - D. H5N1
14. Which of these is NOT a proven zoonosis?
- A. Canine Distemper
 - B. New Castle disease
 - C. Fascioliasis
 - D. Foot and mouth disease
15. Human neurocysticercosis is the presence of cyst in the parenchyma of brain of which parasite?
- A. Taenia saginata
 - B. Taenia multiceps
 - C. Taenia solium
 - D. Taenia taeniaeformis
16. When is the most appropriate time for insemination of a cow?
- A. 24- 36 hours after onset of estrus
 - B. 12- 24 hours after onset of estrus
 - C. 36- 48 hours after onset of estrus
 - D. Within 12 hours after onset of estrus
17. Which of the following is the most appropriate drug for treatment of chronic fascioliasis in cattle?
- A. Thiabendazole
 - B. Mebendazole
 - C. Triclabendazole
 - D. Albendazole

18. Which of the following is the most appropriate sedative for a thorough bred adult male horse?
- A. Xylazine hydrochloride
 - B. Diazepam
 - C. Acetylpromazine (Acepromazine)
 - D. Phenobarbital
19. Which of the following is not a fodder plant?
- A. Tall fescue
 - B. Lucerne
 - C. Cocksfoot
 - D. Lantana camara
20. Which of the following is most effective treatment for early stage canine transmissible venereal tumor (TVT)?
- A. Streptomycin sulfate
 - B. Sucralfate
 - C. Vincristine sulfate
 - D. Benzyl penicillin
21. The causative agent for glanders in horses is?
- A. Pasteurella caballi
 - B. Streptococcus equi
 - C. Burkholderia mallei
 - D. Fusobacterium necroforum
22. Hydrophobia (fear of water) is a prominent symptom of rabies in:
- A. Dog
 - B. Cattle
 - C. Skunks
 - D. Man
23. Acute ruminal acidosis results from the ingestion of:
- A. Starch-rich grains
 - B. Fruits
 - C. Root crops
 - D. All of the above

24. The laboratory findings of azotemia refers to:
- A. A state when blood urea and creatinine concentrations are greater than normal
 - B. A state when blood urea and creatinine concentrations are lesser than normal
 - C. A state when blood urea and creatinine concentrations are normal
 - D. None of the above
25. Melaena refers to:
- A. Black “tarry” faeces
 - B. Pale mucous membranes
 - C. Muscle wasting
 - D. Vomiting of blood
26. Parturient paresis is a result of :
- A. Low blood magnesium
 - B. Low blood potassium
 - C. Low blood calcium
 - D. Low blood sodium
27. Drugs such as primidone, Phenobarbital and diazepam are commonly used in dogs to treat:
- A. Lameness
 - B. Tumours
 - C. Seizures
 - D. Skin disease
28. Chronic diarrhea, homogenous faeces, progressive loss of weight with normal temperature, usually normal appetite and almost normal hydration are clinical findings in which disease?
- A. Rinderpest
 - B. Salmonellosis
 - C. Johne’s disease
 - D. Foot and Mouth disease
29. Diclofenac sodium, Aspirin, Meclofenamic acid and Flunixin meglumine are examples of:
- A. Neuroleptanalgesics
 - B. Narcotic analgesics
 - C. Nonsteroidal antiinflammatory drugs
 - D. Stimulant drugs

30. Megestrol acetate is used in female dogs for:

- A. Oestrus induction
- B. Oestrus control
- C. Maintenance of pregnancy
- D. None of the above

PART A

Section b: Short questions (4 questions)

20 Marks

1. You are responding to a farmer's call regarding his sick cow. On arrival, you find the animal is disinclined to move, has grinding of teeth and muscle tremor of the head and limbs. You ask the history of the onset of the disease and the farmer tells you that the cow delivered just two days ago. This is her sixth lactation.

- a) What is your tentative diagnosis at this stage and why?
- b) What is your first line of treatment and explain the rationale behind your treatment.
- c) What is your prognosis for this case and why?

2. A three year old Alsatian dog is presented to you with a history of inappetance and listlessness. On physical examination, you notice that the animal has a thick nasal and ocular discharge which is yellow in colour. Its body temperature is higher than normal. The owner also has two other dogs that have shown no sign of illness yet:

- a) Reason your tentative diagnosis at this stage.
- b) Describe your treatment regime for this sick animal.
- c) How would you advice the owner on caring for the sick dog as well as the other two dogs?

3. You are called by a monk at Phajoding monastery regarding a sick horse. On arrival, you find that the horse is reluctant to move and appears dull and depressed. From time to time, it looks at its flanks with ears pinned back. It paws with its front feet at the ground and rests in an unnatural position like a dog sitting with its foreleg extended. On inquiring the history of the sick horse from the monk, you are informed that the horse is usually stall fed but it has been let out to graze in the last few days. You notice that there has been recent rain and the horse has been grazing on young grass shoots.

- a) At this stage, what is your suspicion on what is ailing the horse?
- b) Describe your treatment regime for the horse.
- c) What would you advice or recommend to the farmer?

4) In your probation period, the Department of Livestock has deputed you as a veterinary team leader for joint investigation of anthrax outbreak in lower kheng in Zhemgang with team members from the Ministry of Health as well as the Department of Disaster management. The outbreak has killed over 53 animals and affected more than 20 people in Kagtong village including one human casualty who was referred to the Regional Referral hospital in Gelephu.

The human infections were from meat of dead animals. The samples referred to the regional laboratory in Zhemgang confirmed that it was an anthrax outbreak.

- a) How would you retrospectively diagnose anthrax in cattle?
- b) What are your recommendations for the exposed animals in Kagtong village?
- c) What would you recommend on disposal of the dead animals?
- d) What is the laboratory confirmation test for anthrax?

PART B

Two Case studies (Answer only one question)

50 Marks

Q1. You are posted as a Veterinary officer at the Regional Livestock Development Centre at Chukha. One day, you receive a phone call from the Livestock Extension Officer at Pasakha regarding a case of sudden death of poultry at a commercial poultry farm. Overnight 100 birds have died. Immediately you proceed to the farm in Pasakha. You observe that the birds have typical haemorrhage of the whole body particularly the shanks and the combs highly suggestive of Avian Influenza (AI).

- i) What samples will you submit for confirmation of the disease to the National Referral laboratory at Serbithang?(5)
- ii) What will you advise the farmer on the disposal of the carcasses and control of the disease at the farm?(10)
- iii) How will you prevent the disease from spreading to other poultry farms in the vicinity?(10)
- iv) What will you advise the farmer on how long he will have to wait before he can restock his farm and why?(5)
- v) What are the modes of transmission of AI and what kind of clinical signs are generally seen in humans? (10)
- vi) Explain the epidemiology of this disease and its global significance.(10)

Q2. Bhutan is largely an agrarian country with over 90% of the farmers keeping livestock. Cows are highly valued as a source of milk, butter, cheese and cow dung and give nutritional as well as economic benefits to farmers. As a practicing veterinarian, you will have to attend to sick cows more commonly among the large animals and sometimes perform surgeries. Answer the following questions in this regard:

- i) What are the indications for carrying out a flank laparotomy in a cow?(5)
- ii) What are the preoperative considerations that a surgeon will make before carrying out the surgery?(5)
- iii) Describe the types of restraint and anaesthesia that are available. (15)
- iv) What type of medication will you use before and during surgery and explain why?(5)
- v) Describe the actual surgical procedure for a flank laparotomy in a cow including the names of the muscle layers between the skin and the peritoneum and suture pattern as well as the type and size of suture material that you will use.(15)
- vi) What post-operative treatment will you give the cow and what advice will you give to the farmer?(5)