

**ROYAL CIVIL SERVICE COMMISSION**  
**BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2012**  
**EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALIZATION PAPER for VETINERARY SCIENCE**

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<b>Date</b>	: 14 October 2012
<b>Total Marks</b>	: 100
<b>Examination Time</b>	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to examination time)

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**READ THE FOLLOWING INSTRUCTIONS CAREFULLY:**

1. Write your Roll Number clearly on the Answer Booklet in the space provided.
2. The first 15 minutes is being provided to check the number of pages, printing errors, clarify doubts and to read the instructions. You are NOT PERMITTED TO WRITE during this time.
3. Use either Blue or Black ink pen or ball point pen for the written part and Pencils for the sketches and drawings.
4. All answers should be written on the Answer Booklet provided. Candidates are not allowed to write anything on the question paper or any other materials.
5. This paper is divided into two Parts-namely Part A and Part B.
6. PART A consists of two Sections: Section I and Section II.

Section I consists of 30 Multiple-Choice Questions carrying one (1) mark each and is compulsory. The answer of your choice should be clearly written in whole along with the question and option number on your answer booklet. Eg. 31(c).

Section II consists of four (4) short answer questions of five (5) marks each and all questions are compulsory.

7. PART B consists of two Case Studies. Choose only ONE case study and answer the questions under your choice. Each case study carries fifty (50) marks in total.
8. This Paper consists of TEN (10) pages including this Instruction page.

## Part A

### Section I: Multiple Choice Questions (30 marks)

Choose the correct answer and write down the letter of the correct answer chosen in the Answer Sheet against the question number. E.g. 31 (c). Each question carries ONE mark.

1. The acronym for the World Organization for Animal Health is:
  - a. WHO
  - b. OIE
  - c. SPSS
  - d. WMO
  
2. Following the global declaration of freedom from Rinderpest disease, the world organization for animal health has targeted elimination of high impact animal diseases, which are:
  - a. Johne's disease, Salmonellosis, Anthrax and Swine fever
  - b. Fascioliasis, Listeriosis, Ringworm and Black Quarter
  - c. Foot and Mouth Diseases, Peste des Petits Ruminants, Brucellosis and Rabies
  - d. Bluetongue, Strangles, Tetanus and Toxoplasmosis
  
3. In the Livestock legislation; the Animal diseases which are legally required to be reported are called as:
  - a. Endemic diseases
  - b. Emerging diseases
  - c. Exotic diseases
  - d. Notifiable diseases
  
4. The first outbreak of Avian Influenza (H5N1) in Bhutan occurred in the year:
  - a. 2005
  - b. 2006
  - c. 2010
  - d. 2008
  
5. The procedure used for dog population management and rabies control project in Bhutan is:
  - a. Impounding of dogs
  - b. Catch, Neuter, Vaccinate and Release
  - c. Extermination of dogs
  - d. Translocation of dogs

6. The World Rabies day is celebrated on one of the following date of every year:
- 27<sup>th</sup> September
  - 28<sup>th</sup> September
  - 28<sup>th</sup> July
  - 28<sup>th</sup> October
7. Parasitic infections commonly observed in the yak population of Bhutan are:
- Fascioliasis and Strongylus vulgaris
  - Trichuris spp and Pinworms
  - Gid (Tapeworm) and Warble fly (Hypoderma)
  - Coccidia and Giardia
8. Dairy farmer groups around Thimphu and Paro are currently selling fresh milk to Thimphu city. It is important to educate the public as consumption of fresh milk without pasteurization can transmit following disease/s:
- Black quarter
  - Bovine Virus Diarrhoea
  - Infectious Bovine Rhinotracheitis
  - Bovine Tuberculosis, Brucellosis, Rabies and Anthrax
9. The numbers of pet owners in Thimphu are increasing every year. As a veterinarian we need to advice especially the pregnant women because one of the following diseases can spread through the urine of dogs and cause abortion:
- Leptospirosis
  - Actinomycosis
  - Brucellosis
  - Lymes disease
10. Migratory waterfowl are considered as an important source of poultry viral infection of which of the following disease:
- Infectious bronchitis
  - Avian Influenza
  - Newcastle disease
  - Avian Encephalomyelitis



11. A concept that is gaining global momentum in preventing epidemic or epizootic disease and for maintaining ecosystem integrity is called:
- Public and Ecosystems Health
  - One World One Health
  - Environment and Natural Health
  - Human and Wild Life Health
12. Four major animal diseases that has topped the International Zoo-Sanitary agenda over the last few years were:
- Tuberculosis, Brucellosis, Anthrax and Black Quarter
  - Avian Influenza, Bovine Spongiform Encephalopathy, FMD and Rabies
  - Johne's disease, Coccidiosis, Rinderpest and Bluetongue
  - Mastitis, Salmonellosis, Gumboro and Newcastle disease
13. Which of the following bovine species is primarily reared as meat animal by tribal people of North-Eastern India but used in Bhutan for production of hybrids for dairy and draught purpose:
- Bos frontalis*
  - Bos gaurus*
  - Bos grunniens*
  - Bubalus bubalis*
14. An appropriate animal reproduction option for Bhutan that can "concentrate breeding and calving periods" to match fodder availability could be:
- Introduction of sexed semen
  - Estrus synchronization
  - Embryo transfer
  - Cloning
15. Which of the following bovine /cattle types is the most preferred draught animal for ploughing Agriculture land in Bhutan:
- Jersey crossbred bullock (Jersey x indigenous Thrabum)
  - Jatsa (F1 hybrid male of Mithun x indigenous Thrabum)
  - Indigenous Nublang bullock
  - Brown Swiss crossbred bullock (Brown Swiss x indigenous Thrabum)

