

**RW-6391****506101****M.Phil. DEGREE EXAMINATION, DECEMBER 2010****Animal Health and Management****RESEARCH METHODOLOGY**

(CBCS–2010 onwards)

Time : 3 Hours

Maximum : 75 Marks

Answer **all** questions.

(5 × 15 = 75)

1. (a) Explain the working principle and function of Spectrophotometer with neat diagram.

(Or)

- (b) (i) A buffer solution contains 0.1 M  $\text{CH}_3\text{COOH}$  and 0.1 M sodium acetate (that is, it is a 0.2 M acetate buffer). Calculate the pH after addition of 4 ml of 0.025 N HCL to 10 ml of the buffer. The pKa for acetic acid is 4.74.

- (ii) What are the criteria for selection of buffers ?

2. (a) Formaldehyde as a universal fixative  
—Justify.

(Or)

- (b) Write an essay about the principle and application of Fluorescence Microscope in the biological field.

3. (a) Describe the different types of rotors and list out their advantages during centrifugation.

(Or)

- (b) Write the principles and mechanism of PCR techniques.

4. (a) Explain the principles and applications of tracer techniques in biology.

(Or)

(b) Describe the enrolment of Cell culture technique in medicinal field ? Give few examples.

5. (a) Explain the importance of Sampling. What are the well known methods of sampling in use ?

(Or)

(b) What are the measures of central tendency ? Give relative merits and demerits.

\_\_\_\_\_ \*\*\* \_\_\_\_\_

**RW-6392****506102****M.Phil. DEGREE EXAMINATION, DECEMBER 2010****Animal Health and Management****ANIMAL HEALTH AND ADVANCED BIOLOGY**

(CBCS–2010 onwards)

Time : 3 Hours

Maximum : 75 Marks

(5 × 15 = 75)

Answer **all** questions carry equal marks.

1. (a) Describe the different patterns of Animal Behaviour. Write an application of Animal Behaviour.

(Or)

- (b) Explain in detail about structural and functional proteins. Add notes on Genome Organization.

2. (a) Discuss in detail about Protein and Lipid metabolism. Add notes on Hormones and Cell cycle.

(Or)

- (b) Write the diagnostic importance of blood sugar, blood urea nitrogen, ketone bodies and uric acid.

3. (a) Explain in detail about commensalism and Parasitism. Add notes on different types of parasite.

(Or)

- (b) Write the role of Chemotherapy in parasite control. What are risks involved in use of Herbicides and Acaricides ?

4. (a) Describe in detail about bacterial, fungal and viral pathogens. Add notes on vaccines for parasite.

(Or)

- (b) Explain the role of climate on animal production.  
Write the adaptability of animals to stress conditions.

5. (a) Write an essay on molecular techniques involved in animal health.

(Or)

- (b) Explain about animal cloning. Add notes on cell culture products.

\*\*\*

**RW-6393**

**506103**

**M.Phil. DEGREE EXAMINATION, DECEMBER 2010**

**Animal Health and Management**

**ANIMAL HEALTH BIOTECHNOLOGY**

(CBCS–2010 onwards)

Time : 3 Hours

Maximum : 75 Marks

(5 × 15 = 75)

Answer **all** questions.

Each question carries 15 marks.

1. (a) Give a brief account on Medical application in the field of Genetic Engineering.

(Or)

- (b) (i) List several reasons, why cloned gene might not be expressed in a host cell.
- (ii) What is an expression vector ?

2. (a) Write brief account on cardio vascular diseases.

(Or)

- (b) Describe kidney disease and its treatments.

3. (a) (i) What is meant by gene therapy ?  
(ii) Give brief outline about gene therapy.

(Or)

- (b) Discuss pharmaceutical proteins from Milk.

4. (a) Write an essay on Animals and Ethics.

(Or)

- (b) Write brief account on Molecular techniques in disease diagnosis.



5. (a) Write brief account on Immunoglobulin.

(Or)

- (b) Describe the application of ELISA.

\_\_\_\_\_ \*\*\* \_\_\_\_\_