Instructions:

1. Answer all the questions in Section A and 2 questions in Section B.
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.
SECTION A.

Answer ALL questions

1. Define the following terms:
   
   i. Anatomy [3 marks]
   ii. Physiology [3 marks]
   iii. Homeostasis [3 marks]

2. Describe the structure and function of the following [2 marks each]:
   a. Cell membrane
   b. Endoplasmic reticulum

3. Describe the structure and function of the following [2 marks each]:
   a. Ribosome
   b. Nucleolus
   c. Mitochondrion

4. The following questions are about tissues;
   a. Define the term ‘Tissue’ [1 mark]
   b. Name the basic body tissues [3 marks]

5. Describe the structure and function of one basic body tissue [4 marks]

6. List and explain three examples of how structure determines function in the body. [3 Marks]

SECTION B

ANSWER ANY TWO QUESTIONS

Question 1

Describe the digestion in the ruminant and highlight the major difference with mono-gastric animals [20 marks]

Question 2

a. What are the phases of reproductive development in the life of a mammal? [10 marks]
   b. How do you determine the mammal’s readiness for breeding? [10 marks]
Question 3
   a. List the sources and function of hormones derived from steroid, peptides and amines [10 marks]
   b. Describe the cell theory [10 marks]

Question 4
What the functions of the major female reproductive organs in poultry? [20 marks]