



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2019/2020
SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN ANIMAL HEALTH AND PRODUCTION

KAS 105: EMBRYOLOGY

DATE: WEDNESDAY 13TH JANUARY 2021

TIME: 11.00 A.M. – 1.00 P.M.

INSTRUCTIONS :

ANSWER ALL QUESTIONS IN SECTION A (40 MARKS)

1. Define the following terms as
 - a. Embryology (2 marks)
 - b. Gametogenesis (2 marks)
 - c. Fertilization (1 marks)
2. Explain the following processes that occur during embryo development
 - a. Cleavage (2.5 marks)
 - b. Gastrulation (2.5 marks)
3. Explain the various extra-embryonic membranes and how they are involved in embryo development (5 marks)
4. List any FIVE hormones that are involved during embryo development from fertilization to birth of an offspring in mammals (5 marks)
5. Define the following terms as applied in embryology
 - a. Multiparous (1 mark)
 - b. Implantation (1 mark)
 - c. Viviparity (1 mark)
 - d. Meiosis (1 mark)
 - e. Mitosis (1 mark)
6. Explain how sex of an embryo is determined (5 marks)
7.
 - a. List THREE accessory glands in males associated with reproduction (3 marks)
 - b. Define the term spermatogenesis (1 mark)
 - c. Define the term oogenesis (1 mark)

8. Explain the various germ layers and how they are related to development of body organs during embryo development (5 marks)

SECTION B (ANSWER ANY TWO QUESTIONS (30 marks))

9. Explain the following terms
- a. Differentiation (5 marks)
 - b. Organogenesis (5 marks)
 - c. Chromosomes (5 marks)
10. a. Describe the process of egg formation in chicken (5 marks)
- b. Explain the term 'teratogens' (10 marks)
11. a. Define the term placentation (3 marks)
- b. Classify placentation based on placenta shape and contact points between fetal and maternal tissue (12 marks)