



MAASAI MARA UNIVERSITY
UNIVERSITY EXAMINATIONS 2019/2020

THIRD YEAR END OF FIRST SEMESTER
EXAMINATIONS

SCHOOL OF SCIENCE AND INFORMATION SCIENCES

FOR

BACHELOR OF SCIENCE

ZOO 3215: DEVELOPMENTAL BIOLOGY AND REPRODUCTIVE HEALTH

DATE: 24TH APRIL 2019

TIME: 2.30 – 4.30PM

INSTRUCTIONS TO CANDIDATES

1. Answer all the questions in **SECTION A** and **ANY TWO** questions from section B.
2. Illustrate your answers with suitable diagrams and give examples wherever necessary.

SECTION A: 30 MARKS

1. Explain the main differences between oogenesis and spermatogenesis **(3 marks)**
2. Describe the types of eggs in animals based on amount of yolk **(3 marks)**
3. Explain the significance of cleavage during embryonic development **(3 marks)**
4. Describe the types of differentiation observed in animals **(3 marks)**
5. Describe the forces responsible for the formation of a gastrula **(3 marks)**
6. Describe the changes that occur to the egg after fertilization **(3 marks)**
7. Explain briefly the roles of the following in reproduction **(3 marks)**
 - a) Testicles
 - b) Epididymis
 - c) Ovaries
8. Describe the structure of the spermatozoon head **(3 marks)**
9. Explain briefly how fate maps can be constructed using natural markings **(3 marks)**
10. Describe the stages involved in the process of tubulation **(3 marks)**

SECTION B: 40 MARKS

11. Describe the following processes:
 - a) Oogenesis **(10 marks)**
 - b) Gastrulation **(10 marks)**
12. Discuss the process of regeneration in vertebrates **(20 marks)**
13. Describe the process of fertilization in animals. **(20 marks)**
14. Discuss family planning methods **(20 marks)**

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