



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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