



# MASENO UNIVERSITY

## UNIVERSITY EXAMINATIONS 2017/2018

FIRST YEAR FIRST SEMESTER EXAMINATION FOR  
THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL  
LABORATORY AND MEDICAL BIOTECHNOLOGY WITH  
INFORMATION TECHNOLOGY

### MAIN CAMPUS

### PMT 121: MEDICAL EMBRYOLOGY

Date: 8<sup>th</sup> March, 2018

Time: 12.00 - 3.00pm

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#### INSTRUCTIONS:

- Answer ALL Questions in Section A and
- Answer Question 11 any other in Section B



**SECTION A; ATTEMPT ALL QUESTIONS (40 MARKS)**

1. Outline the Basic Cell Theory in Embryology Studies. (4 Marks)
2. Highlight in subsequent order the Cell Mitotic stages. (4 Marks)
3. Outline the common features of a Blastula. (4 Marks)
4. What are the Thermotactic and Chemotactic gradients in Mammalian fertilization? (4 Marks)
5. Differentiate karyokinesis from cytokinesis Cell mitotic stages. (4 Marks)
6. Outline the Biological processes differentiating meiosis from mitosis. (4 Marks).
7. Highlight the Cell types that form the structures of an ovarian follicle. (4 Marks)
8. Outline the differences between Eukaryotic Cells and the Prokaryotic Cells. (4 Marks)
9. Which Cell Cycle phases duplicates the Cell genetic materials? (4 Marks)
10. Outline the major embryological processes involved in Organogenesis. (4 Marks)

**SECTION B: ATTEMPT QUESTION 11 PLUS ONE OF THE TWO (30 MARKS)**

11. Discuss the Clinical Applications of Embryology Studies. (15 Marks)
12. Outline the factors that influence sperm motility during copulation. (15 Marks)
13. Give an exhaustive description of the eukaryotic cells highlighting the differences from prokaryotic cells. (15 Marks)