

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

# **UNIVERSITY EXAMINATIONS 2014/2015**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL MICROBIOLOGY**

**MMB 2172 : BIOLOGY**

**DATE: DECEMBER 2014 TIME: 2 HOURS**

**INSTRUCTIONS:**

**ANSWER QUESTION ONE [COMPULSORY ] AND ANY OTHER TWO QUESTIONS**

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**QUESTION ONE [30 MARKS]**

1. Discuss the history of the following
2. Cytology [3 marks]
3. Cell theory [3 marks]
4. Define a cell [3 marks]
5. State the cell sized of the following
6. Prokaryotes [1 mark]
7. Eukaryotes [1 marks]
8. Explain the origin of eukaryotic cells [3 marks]
9. Discuss the contributions of the following people to the development of cell biology
10. Louis Pasteur [3 marks]
11. Freidrich wonler [3 marks]
12. Hans Buchner [3 marks]
13. Define a nucleosomer [1 mark]
14. Describe the necessary of the cell fractionation of cell-free preparations. [3 marks]
15. Explain cell aging. [3 marks]

**QUESTION TWO [20 MARKS]**

Using illustrations, discuss the following statement. There are two fundamentally different forms of cells.

**QUESTION THREE [20 MARKS]**

Using diagrams discuss the bacterial cell wall, including the external structures.

**QUESTION FOUR [20 MARKS]**

Discuss the following statement: Primary structure of biological macro molecules determines function.