

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

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

# **UNIVERSITY EXAMINATIONS 2014/2015**

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

**MMB 2173 : : INTRODUCTION TO MICROBIOLOGY**

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

**INSTRUCTIONS:**

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

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**QUESTION ONE**

1. Describe microscopic characteristics used in identification of fungi [5 marks]
2. (i) Distinguish between cell culture and microbiological culture media [2 marks]

(ii) Describe undefined media [4 marks]

1. Distinguish between pour plate and streak plate methods of identification of microorganisms [4 marks]
2. Explain direct methods of measuring microbial growth [6 marks]
3. Describe virus plaque essay [4 marks]
4. Outline growth characteristics of bacteria in nutrient broth [5 marks]

**QUESTION TWO**

Discuss bacterial motility [20 marks]

**QUESTION THREE**

Discuss growth requirements for microorganisms [20 marks]

**QUESTION FOUR**

Discuss sterilization techniques in microbiology [20 marks]