



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR DEGREE OF MASTER OF SCIENCE IN**  
**BIOMEDICAL SCIENCES**  
**SPECIAL EXAMINATIONS NOV. 2020**

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**COURSE CODE:** HMB 5115  
**COURSE TITLE:** Laboratory & Healthcare Systems Management  
**EXAM VENUE:** STREAM: MSc Biomedical Sciences  
**DATE:** EXAM SESSION:  
**TIME:** 3.00 HOURS

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**Instructions:**

- 1. Answer Question One and Any Other THREE Questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

**Answer Question 1 and any 3 other questions.**

**Q1. (Compulsory)**

Describe the 5 functions of management, highlighting their implications for biomedical laboratory management. [15 marks]

**Q2.**

Discuss the importance of *laboratory quality*, describing any 5 key roles it plays. [15 marks]

**Q3.**

Given the complex nature of the laboratory system, describe any 5 factors that must be addressed to assure quality in the laboratory. [15 marks]

**Q4.**

Describe briefly the principles of *laboratory design* under the following sub-headings: [15 marks]

- a. Access
- b. Circulation pathways
- c. Distribution of activities
- d. Spatial provision for equipment
- e. Facilities
- f. Work benches
- g. Cleaning

**Q5.**

Describe any ten Standard safety practices in a biomedical laboratory highlighting their relevance [15 marks]

**Q6**

Describe how any 5 risks within the biomedical laboratory may be prevented or managed  
*Note: the risks must be of different origins/types* [15 marks]