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

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2019/2020**

**SECOND YEAREXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY AND BIOTECHNOLOGY**

**SBT 2275: LABORATORY TECHNIQUES AND SAFETY II**

**DATE: APRIL, 2020 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

**QUESTION ONE: 30 MARKS**

a. State four standard precautions observed when handling clinical specimens. (4 marks)

b. Describe the in ?? hybridization technique used in cell ??? pathology.

(4 marks)

c. State four roles of quality assurance. (4 marks)

d. i. Define biosafety (1 mark)

 ii. Briefly describe the features of a biosafety level four facility. (4 marks)

e. Explain the erythrocyte sedimentation rate (ESR) test. (4 marks)

f. State and explain three levels of risk control. (6 marks)

g. State three biological effects of radiation on humans. (3 marks)

**QUESTION TWO: 20 MARKS**

Discuss techniques used in bacterial enumeration.

**QUESTION THREE: 20 MARKS**

Discuss risk assessment

**QUESTION FOUR: 20 MARKS**

Discuss control measures that are employed in handling biohazards.