



MURANG'A UNIVERSITY COLLEGE

(A constituent college of Jomo Kenyatta University of Agriculture and Technology)

SCHOOL OF PURE AND APPLIED SCIENCE

CLASS: AS/BIO/14D

UNIT CODE ASB/ASC 1206

UNIT TITLE: LABORATORY PRACTICE

TIME: 8.00-10.00AM

DATE: 7TH AUGUST 2015

SPECIAL EXAMINATION

Answer **ALL** questions in both sections

SECTION A

1. Outline the preparation of 500cm³ 100ppm Calcium Carbonate with respect to Calcium

Ca=40, C=12, O=16 (4marks)

2. Outline the preparation of 2M HNO₃ using the following information %purity =70, S.G =1.42, N=14, O=16, H=1 (4marks)

3a). Define the following terms i) Molarity ii) Normality (2marks)

b) State TWO precautions necessary when preparation of lab. Reagents (2 marks)
(3marks)

4. Differentiate the two types of lighting systems in the lab. (2 marks)

5. Explain the main three ventilations systems in the lab (6 marks)

6. State the importance of laboratory Safety (4 marks)
7. State **FOUR** the importance of first aid (4marks)
8. Differentiate between the **TWO** construction patterns of laboratory benches (4marks)
9. Outline the preparation of 125cm³ of 0.25M Sodium Carbonate
Na=23, C=12, O=16 (4marks)
10. State FOUR precautions necessary when handling radioactive hazards in the lab.
(4marks)

SECTION B

- 11 a. Describe the FOUR parts of first aid (6marks)
- (b) Describe **FOUR** main safety features found in a chemical laboratory (8marks)
- (c) State four types of fires, their causes and their methods of distinguishing (6 marks)
- 12 .(i) State the role of bystanders during an accident (4 marks)
- i. Name four items found in a first aid box and their uses. (4 marks)
- ii. State any **two** reasons for washing laboratory apparatus immediately after use. (2 marks)
- iii. Differentiate between the following an aperient and demulcent. (2 marks)
- a. Describe the making of a Y joint in glass blowing laboratory. (4 marks)
- iv. Describe first aid treatment of acid splash in the eyes (4marks)