

  
**KISUMU UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

SECOND YEAR EXAMINATION FOR THE AWARD OF THE  
DEGREE OF BACHELOR OF SCIENCE IN MEDICAL LABORATORY  
SCIENCE

SECOND SEMESTER 2017/2018

(MAY - AUGUST, 2017)

MELS 229: PHARMACOGNOSY AND PHYTOCHEMISTRY

**STREAM: Y2S2**

**TIME: 3 HOURS**

**DAY: TUESDAY, 2:00-5:00 PM**

**DATE: 12/09/2017**

**INSTRUCTIONS**

1. *Do not write anything on this question Paper.*
2. *Answer ALL questions in Section A. In section C, answer question one (compulsory) and any other question.*

**SECTION A: ANSWER ALL THE QUESTIONS [40 MARKS]**

1. Outline any four plants considered medicinal in Kenya and their use. [4 marks]
2. Write short notes on HPLC. [4 marks]
3. Name four cardiac glycosides. [4 marks]
4. Discuss quality control measures observed in production of crude drugs. [4 marks]
5. Explain how saponins cause haemolysis of red blood cells. [4 marks]
6. Describe the mode of action of cardiac glycosides. [4 marks]
7. Name four importance of extraction. [4 marks]

8. Describe column chromatography method used in phytochemistry. [4 marks]
9. Describe maceration as used in extraction. [4 marks]
10. What should you consider when you are doing a study on crude drugs. [4 marks]

**SECTION B: ANSWER THE FIRST QUESTION (COMPULSORY) AND ANY OTHER QUESTIONS [30 MARKS]**

1. Discuss chromatography. [15 marks]
2. Write an essay on cardiac glycosides focusing on pharmacological properties, plant sources, uses and chemical tests. [15 marks]
3. Describe any three important sources of saponins and their importance in modern medicine. [15 marks]