



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

**UNIVERSITY EXAMINATION FOR:**

BTMB 13S YR4 SII

APM 4203: PHARMACOGNOSY

END OF SEMESTER EXAMINATION

**SERIES:** APRIL2016

**TIME:**2HOURS

**DATE:**Pick DateMay2016

## Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of five questions. Attempt: question which's compulsory and any other two questions..

**Do not write on the question paper.**

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## QUESTION ONE

- a) Outline the requirement for successful high through put screening (HTS) in drug discovery process (4 marks )
- b) Name four participant that are involved in the conservation of medicinal plants (4 marks)
- c) Give three physicochemical properties to be considered in early stages of drug discovery. (3 marks)
- d) List four reasons why some medicinal plant materials require specific processing (4 marks)
- e) Define the following terms as used in Pharmacognosy:
  - i. Ethnopharmacology (2 marks)
  - ii. Phytotherapy (2 marks)

- f) Outline the stages of storage and transportation as a post harvesting processes of raw medicinal plants materials. (4 marks)
- g) Describe three analytical spectroscopic tools to be used in identifying novel drug discovered from medicinal plants (3marks)
- h) Describe a chemical test for alkaloids in medicinal plants. (4marks)

### **QUESTION 2**

Discuss the Flavanoids as a natural source of drugs under the following;

- i. Occurrence of Flavanoids. (3 marks)
- ii. Classification of Flavanoids. (3 marks)
- iii. Chemical tests of identification. ( 3 marks)
- iv. Pharmacological and chemical properties (6 marks)
- v. Isolation and extraction procedure of tannins as bioactive compounds in plants. (5 marks)

### **QUESTION 3**

- a) With the aid of a schematic diagram, discuss the sequential crude extraction of bioactive from the root bark of medicinal plant. (6 marks).
- b) Discuss the four points that are considered for detailed description of individual herbal drugs from medicinal plants (6 marks)
- c) With the aid of a flow diagram, outline the clinical trial phases for a newly discovered drug reedy for market. ( 8 marks)

### **QUESTION 4**

- a) Discuss the the processes used for classification of herbal medicinal drugs. (10 marks)
- b) Outline four basic principles of quality checks in herbal medicines as drugs. (4 marks)
- c) Discuss three drug evaluation methods for herbal medicine drugs (6 marks)

### **QUESTION 5**

- a) Discuss the two the primary and secondary factors of deterioration of herbal medicine drugs (12 marks)
- b) Outline the merits of applying computers in drugs discovery. ( 4marks)
- c) Outline the four analytical aspects that are considered during packaging of herbal medicine drugs.( 4 marks)

