



TECHNICAL UNIVERSITY OF MOMBASA

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 one which is compulsory and any other two questions

Do not write on the question paper.

QUESTION ONE

- a) Outline the procedures and process in drug discovery of novel anticancer drug for the market (4 marks)
- b) Outline four methods of extracting bioactive compounds from plant samples. (4 marks)
- c) Give three demerits of modern medicine and traditional medicine. (3 marks)
- d) Giving examples, list four main natural sources of drug. (4 marks)
- e) Outline different methods of drying of medicinal plant samples for drug preparation. (3 marks)
- f) Describe different types of adulteration of crude drugs obtained from medicinal plants. (4 marks)

- g) Give the microscopic characters, constituents, uses, and substituent of cinnamon (4marks)
- h) Describe the Molisch's and Fehling's tests for carbohydrates and or glycosides. (4marks)

QUESTION 2

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

- i. Occurrence of phenolics. (3 marks)
- ii. Nomenclature. (4 marks)
- iii. Isolation and extraction procedure of phenolics as bioactive compounds in plants. (10 marks)
- iv. Chemical tests of identification. (3 marks)

QUESTION 3

- a) With the aid of a schematic diagram, discuss the sequential crude extraction of the root bark of *Mondia whytei* (Hook.Skeels.F) *asclepiadaceae* using n-hexane, water, and methanol citing the class of compounds found in each extract. (10 marks).
- b) Outline the morphology of *M. whytei*. (6 marks)
- c) Discuss conservation strategies for *M. whytei*. (4 marks)

QUESTION 4

- a) Discuss the good medicinal plant practices involved for sampling. (12 marks)
- b) Outline four different methods used in identifying and collecting samples for phytochemical investigations. (8 marks)

QUESTION 5

- a) Describe the history of Pharmacognosy citing major historical milestones to present date giving examples. (10 marks)
- b) Discuss the sources of ethnomedical information (6 marks)
- c) List the information required for ethnomedical purposes. (4marks)