

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN BIOLOGY

BOTA 342: ECONOMIC BOTANY

STREAMS: BSC (BIO)

TIME: 2 HOURS

DAY/DATE: FRIDAY 14/12/2018

11.30 A.M - 1.30 P.M.

INSTRUCTIONS

- Answer ALL Questions in Section A and any other TWO Questions in Section B
- Do not write on the question paper

SECTION A: [30 MARKS]

- (a) Define the term 'pharmacognosy' as applied in economic botany. [2 Marks]

(b) Devise criteria by which drugs and plant-based drugs can be classified. [3 Marks]
- (a) Illustrate three industrial applications of plant essential oils. [3 Marks]

(b) Identify biological use of latex in plants. [3 Marks]
- Describe factors that influence the mechanical property of wood. [6 Marks]
- (a) Explain economic uses of tannins in different industries. [3 Marks]

(b) Differentiate between the following classes of vegetable fatty oils:

 - Drying oils and semidrying oils. [2 Marks]
 - Nondrying oils and fats (tallows) [2 Marks]
- Explain properties of resins which make them useful for industrial applications. [6 Marks]

SECTION B: [40 MARKS]

- (a) Describe the biotechnological techniques used in conservation of plant biodiversity. [10 Marks]

(b) Discuss the history of medical plants. [10 Marks]

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7. Describe characteristics and uses of the following spice and condiments yielding plants:
- (a) Ginger [10 Marks]
 - (b) Capsicum [10 Marks]
8. Discuss ethnobotanical uses of *Moringa oleifera* (Moringaceae) to the local communities in East Africa. [20 Marks]
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