BACHELOR OF PHARMACY HONOURS
FMU4302 – PHARMACOGNOSY II – LEVEL 4
FINAL EXAMINATION
DURATION: THREE (03) HOURS

DATE: 12TH SEPTEMBER 2023 TIME: 9.30 P.M. – 12.30 P.M.

Part B – Short Answer Questions (20 Marks)

1.

1.1 Define the term "Nutraceuticals." (02 marks)

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1.2 Classify nutraceuticals based on their food sources with one (01) example for each. (03 marks)

I.....

II.....

III.....

1.3 Name three (03) Single-component nutraceuticals. (03 marks)

I. .....

.....

II.....

III.....

1.4 List two (02) desirable features of cosmeceutical agents. (02 marks)

I.....

II.....

2.

2.1 List three (03) types of interactions that can take place in an herbal mixture containing multiple bioactive constituents. (03 marks)

I.....

II.....

III.....

2.2 Write two (02) underlying mechanisms of interactions mentioned in 2.1. (02 marks)

I.....

II.....

Index No.....

2. 3 State one (01) advantage of using isobole method for measurement of synergy. (01 mark)

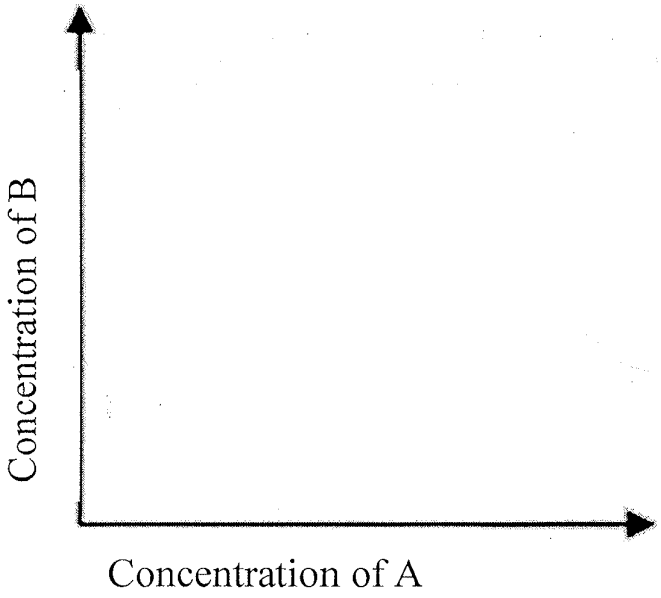
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2.4 Name one (01) method used for measuring synergy other than isobole method. (01 mark)

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2.5 There are two compounds called "A" and "B" in a mixture. Draw the isoboles for antagonistic, additive, and synergistic effect in the given graph. Label the isoboles accurately. Axes represent the concentration of each compound. (03 marks)



Index No.....

Part C – Structured Essay Questions (60 Marks)

1.

1.1 Define the statement "elucidation of biosynthetic pathways". (02 marks)

1.2 Briefly describe the major steps in tracer techniques used to elucidate biosynthetic pathways. (04 marks)

1.3 State the biosynthetic pathway which is responsible for the biosynthesis of fatty acids? (01 mark)

1.4 Starting from the main precursor, briefly explain the biosynthesis pathway of poly beta keto chain using appropriate chemical structures. (08 marks)

2.

2.1 Define the term " Pesticides" (02 marks)

2.2 State one (01) group of chemicals which are responsible for pesticidal activity in each of the following biological sources. (03 marks)

I. *Derris elliptica*

II. *Nicotiana tabacum*

III. *Strychnous nuxvomika*

2.3 Briefly explain four (04) methods of artificial pest control. (10 marks)

3.

3.1 List three (03) factors related to species rarity of medicinal plants. (03 marks)

3.2 State two (02) disadvantages of harvesting wild resources over cultivated medicinal plants. (02 marks)

3.3 Briefly explain two (02) conservation strategies of medicinal plants with one (01) example for each. (10 marks)

4.

4.1 List two (02) parameters evaluated in standardization of raw materials. (02 marks)

4.2 State three (03) barriers encountered in standardization of herbal medicines. (03 marks)

4.3 Briefly explain the importance of standardization of herbal medicine. (10 marks)