



Index Number:.....



2.

2.1 Comment on the following statement.

*"All animal fats are solids at room temperature"*

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(20 marks)

2.2 What do you mean by "virgin oils"?

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(10 marks)

2.3 Name **three** chemical tests that are used to determine the identity, quality, and purity of fixed oils.

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(30 marks)

2.4 Complete the following table.

Type of oil	Source	Uses
Arachis oil	.....	1.....
Castor oil	.....	1.....
Cotton seed oil	.....	1.....
Olive oil	.....	1.....

(40 marks)



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4.

4.1 Name **two** important alkaloids isolated from opium.

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(10 marks)

4.2 Describe briefly how tannins are classified.

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(60 marks)

4.3 List **three** Hallucinogens found in nature indicating their origin.

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(30 marks)





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6.

6.1.1 What are the main characteristics of alkaloids?

6.1.2 List **three** chemical tests (or names of the reagents) which can be used to test the presence of alkaloids in a plant extracts or in a powdered plant material.

6.1.3 Give names for **three** plants belonging to Solanacea family which are the main sources for tropane alkaloids.

6.1.4 Explain the pharmacological effects associated with atropine.

(24 marks)

6.2.1 Nicotine is categorized as a tobacco alkaloid. Give its chemical structure.

6.2.2 Name another main alkaloid present in tobacco giving its chemical structure.

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6.2.3 What is the crude drug which contains Arecoline as the main alkaloid? Give the health care effects associated with Arecoline.

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6.2.4 Name the precursor molecules involved in the biosynthesis of quinine and cinchona alkaloids.

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6.2.5 Give the names of the alkaloids present in opium crude drug mentioning their approximate percentages.

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(40 marks)

6.3.1 Give the names of two active *vinca* alkaloids.

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6.3.2 Briefly explain the therapeutic importance of *vinca* alkaloids.

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6.3.3 List the main alkaloids present in *Nux vomica*. Indicate the most active alkaloid from this list.

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6.3.4 Explain the therapeutic value of reserpine.

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6.3.5 Draw the chemical structure of Ephedrine and explain why it is not considered as a typical alkaloid.

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(36 marks)