2021

BOTANY — HONOURS

Paper : CC-9
Full Marks : 50

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions from the following:

 2×5

- (a) What is essential oil? Why it is called ethereal oil?
- (b) What is 'Dammar gum'? Mention its uses.
- (c) What do you mean by the term 'beverages'? Give an example.
- (d) Name the alkaloids found in *Cinchona* species. From which plant parts do we obtain these alkaloids?
- (e) Distinguish between New World cotton and Old World cotton.
- (f) What is 'Triticale'?
- (g) Write the scientific names of two indigenous timber yielding plants.
- (h) Define the term acclimatization.

2. Answer *any two* questions from the following:

(a) Write notes on primary and secondary introduction of crops.

 $2\frac{1}{2} + 2\frac{1}{2}$

(b) Comment on the origin of rice plants.

5

(c) Discuss in brief the products and by-products of sugarcane.

5

(d) Give a brief account on the retting and extraction of jute. Name two species of cotton cultivated in India.

3+2

3. Answer *any three* questions from the following:

- (a) Describe the steps involved in the processing of tea. Mention the names of different tea-types based on processing methods. Write the scientific name of tea plant.

 6+3+1
- (b) Distinguish between essential oil and fatty oil. Write the process of steam distillation for the extraction of essential oil. Why soyabean oil is considered as a healthy oil? Write the scientific names of coconut and mustard plants.

 2+4+2+2

Please Turn Over

(c) Mention the parts used and uses of the following spice plants:

 $2\frac{1}{2} \times 4$

2+1+7

- (i) Cumin
- (ii) Bay Leaves
- (iii) Saffron
- (iv) Jayitri.
- (d) Give the botanical name, family and a brief account of method for propagation of potato.

(e) Discuss in brief the Vavilovian Centre of origin of cultivated crops with examples of specific crops of each region. Comment on the different reasons for the loss of genetic diversity.
