

This question paper contains 4+2 printed pages]

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S. No. of Question Paper : 5950

Unique Paper Code : 216301

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Name of the Paper : Plant Resource Utilization (BTHT 304)

Name of the Course : B.Sc. (Hons.) Botany

Semester : III

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt Five questions. Question No. 1 is compulsory.

All parts of a question must be answered together.

1. (a) Fill in the blanks (any five) :

5×1=5

(i) Turmeric is indigenous to.....

(ii) Decaffeinated coffee is obtained by removing the caffeine from.....coffee beans.

(iii) The aromatic.....of Vetiver are used for making screens and cooling jackets.

(iv) Mercerised cotton is prepared by treating the yarn under tension with.....

(v) Kalpavriksha is the name given to.....

(vi) Lathyrism is a disease caused by.....

P.T.O.

(b) Expand the following (any *five*) :

5×1=5

(i) ICRISAT

(ii) CDRI

(iii) IRRI

(iv) CTRI

(v) CPRI

(vi) FRI

(vii) IARI.

(c) Match the following :

5×1=5

(i) Hallucinogens

(a) Coconut

(ii) Copra

(b) Tea

(iii) Stimulant

(c) Cannabis

(iv) Sandalwood

(d) Poppy

(v) Codeine

(e) Incense sticks

2. (a) Draw labelled diagrams of any *two* of the following (Write botanical name and family) :

2×2.5=5

(i) Section of mericarp of Fennel

(ii) T.S. of coffee beans

(iii) L.S. of Wheat grain

(iv) T.S. of Jute stem.

- (b) What is the importance of plant legumes in our lives ? 5
- (c) Write the centre of origin for the following plants (any *five*): 5×1=5
- (i) Black pepper
 - (ii) Rice
 - (iii) Sugarcane
 - (iv) Tea
 - (v) Groundnut
 - (vi) Rubber
3. (a) Write short notes on the following (any *two*) : 2×2.5=5
- (i) Vavilov's world centres of origin of cultivated plants;
 - (ii) Cotton fibre;
 - (iii) Citrus Fruit;
 - (iv) Uses of Digitalis.
- (b) Write the botanical name and family of (any *five*) : 5×1=5
- (i) Opium poppy;
 - (ii) Papaya;
 - (iii) Chickpea;
 - (iv) Tea;
 - (v) Khaskhas;
 - (vi) Flax.

- (c) How is chocolate prepared from Cocoa beans ? 5
4. (a) (i) Why is the tea plant often pruned ? 2.5
- (ii) Why are essential oils referred to as 'essential' ? What are their uses ? 2.5
- (b) What is cane sugar ? Write an account of the commercial production of cane sugar. 5
- (c) Write the common adulterants of (any *five*) : $5 \times 1 = 5$
- (i) Coffee
- (ii) Saffron
- (iii) Cocoa
- (iv) Pepper
- (v) Brassica
- (vi) Turmeric.
5. Differentiate between (any *five*) : $5 \times 3 = 15$
- (i) Sweet and bitter cassava;
- (ii) Sapwood and Heartwood;

- (iii) Non-drying and drying oils;
- (iv) Bast and surface fibres;
- (v) Bhang and charas;
- (vi) Flue curing and air curing.
6. (a) What is TPS technology and what are its advantages ? 5
- (b) What is rubber ? Describe its method of extraction and uses. 5
- (c) Write True or False : 5×1=5
- (i) Bhang produces a higher degree of intoxication than ganja.
- (ii) Ageing of tobacco leaves is a process that results in an increase in their nicotine content.
- (iii) The lemon fruit is a special type of drupe.
- (iv) Jaggery is referred to as centrifugal sugar.
- (v) Non-drying oils form an elastic film on exposure to air.
- (vi) Essential oils are secondary plant metabolites.

7. (a) Name the two principal States where the following crops are cultivated extensively (any *five*) : 5×1=5

- (i) Saffron;
- (ii) Black Pepper;
- (iii) Tobacco;
- (iv) Sandalwood;
- (v) Quinine tree;
- (vi) Rubber.

(b) Write short notes on (any *four*) : 4×2.5=10

- (i) Ratoon crop;
- (ii) Retting;
- (iii) Parboiling;
- (iv) Green revolution;
- (v) Opium and its derivatives.