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Your Roll No.....

5863

**B.Sc. (Hons.) Botany/III Sem. B**

Paper—BTHT-304 : Plant Resource Utilisation

Time : 3 Hours

Maximum Marks : 75

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

Attempt five questions in all.

All questions carry equal marks.

Write Botanical Names wherever applicable.

1. Write short notes on the following (any three) :  $3 \times 5 = 15$
- (a) Economic importance of legumes
  - (b) A spice obtained from fruits
  - (c) Seasoning of wood
  - (d) By-products of Sugarcane Industry
  - (e) Antioxidants in edible oils.

P.T.O.

2. Attempt any *three* of the following : 3×5=15

- (a) What do you understand by Green Revolution ? How was it achieved in case of Wheat ?
- (b) What is alternate bearing in Mango ? Give probable reasons and remedies for this.
- (c) How are millets different from cereals ? List at least *two* major millets of the world.
- (d) List Vavilov's 'centres of origin of crop plants' with examples of any *two* plants from each centre. Name any *two* crops where centre of origin and centre of world production are far apart.

3. Write the Botanical name, family, useful part/s and uses of any *five* of the following : 5×3=15

- (a) Vetiver oil
- (b) "Charas"
- (c) Jute

(d) A plant showing cauliflory

(e) An umbelliferous spice

(f) Source of Eugenol.

4. Differentiate between (attempt any five) :

5×3=15

(a) Drying and Non-drying oils

(b) Potato and cassava

(c) *Indica* rice and *Japonica* rice

(d) Essential oils and fatty oils

(e) A fibre from seed coat and a fibre from stem

(f) CTC and leaf tea

(g) Para Rubber and Gutta percha.

5. Draw well labelled diagrams of any three :

3×5=15

(a) T.S. hesperidium of *Citrus*

(b) T.S. mericarp of *Foeniculum*

(c) L.S. caryopsis of *Wheat*

- (d) T.S. tuber of potato
- (e) T.S. stem of *Corchorus*.
6. (a) Briefly explain the following (any three) :  $3 \times 3 = 9$
- (i) Retting
  - (ii) TPS
  - (iii) Ratooning
  - (iv) Lancing
  - (v) Tapping of rubber.
- (b) Expand the following and name the city where they are located (any three) :  $3 \times 2 = 6$
- (i) CDRI
  - (ii) IARI
  - (iii) CRRRI
  - (iv) CTRI.

7. (a) Give Botanical names of the following (any six) :  $6 \times 1 = 6$

(i) A plant source of sugar besides sugarcane

(ii) Source of sandalwood oil

(iii) A hard wood

(iv) Reserpine yielding plant

(v) Fruit tree with palmately lobed leaves

(vi) Foxglove

(vii) Source of non-drying oil

(viii) Wonder bean.

(b) Write a detailed account of any three :  $3 \times 3 = 9$

(i) Chocolate production from Cacao tree

(ii) Different methods of curing tobacco

(iii) What is plywood ? What are its advantages over solid wood ?

(iv) Preparation of solid rubber from latex.