

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 689 G Your Roll No.....

Unique Paper Code : 216301

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

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **five** questions in all.
3. Question No. 1 is compulsory.
4. **All** questions carry equal marks.
5. Draw labelled diagrams and write botanical names wherever necessary.
6. Answer all parts of a question together.

1. (a) Fill in the blanks (**any five**) : (5×1=5)

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

(ii) ..... is a spice obtained from a schizocarpic fruit (cremocarp).

(iii) The practice of ratooning is used for propagating .....

(iv) ..... is a source of digitalin, a glycoside.

(v) ..... is a source of starch from its tubers.

(vi) ..... is the richest source of protein among the legumes.

*P.T.O.*

(b) Match the following : (5×1=5)

- |                               |                    |
|-------------------------------|--------------------|
| (i) <i>Vetiver zizaniodes</i> | A. Kalpavriksha    |
| (ii) <i>Piper nigrum</i>      | B. Root            |
| (iii) <i>Cocos nucifera</i>   | C. “King of spice” |
| (iv) <i>Arachis hypogaea</i>  | D. Cauliflory      |
| (v) <i>Theobroma cacao</i>    | E. Geocarpic fruit |

(c) Expand any five of the following : (5×1=5)

- (i) IARI
- (ii) FRI
- (iii) CDRI
- (iv) CPRI
- (v) CAZRI
- (vi) IBPGR

2. Draw labelled diagrams of any three of the following (Write botanical name and family) : (3×5=15)

- (i) L.S. of wheat grain
- (ii) T.S. of jute stem
- (iii) T.S. of citrus fruit
- (iv) L.S. of clove

3. Differentiate between any five of the following : (5×3=15)

- (i) Vegetable oils and essential oils

- (ii) Porous wood and non-porous wood
- (iii) Dry and wet processing of coffee
- (iv) Cereals and millets
- (v) *C. capsularis* and *C. olitorius*
- (vi) Flue curing and sun curing

4. Write short note on **any five** of the following : (5×3=15)

- (i) Tapping of latex from para rubber tree
- (ii) Parboiling
- (iii) TPS technology
- (iv) Tobacco and its health hazards
- (v) Nobilisation of sugar cane
- (vi) Extraction methods of essential oils
- (vii) Role of dwarf varieties of wheat in green revolution

5. Write the botanical name, family, part used and economic importance of **any five** the following : (5×3=15)

- (i) Bhang
- (ii) Linseed
- (iii) Gutta Percha
- (iv) Teak
- (v) Cotton
- (vi) Mustard
- (vii) Poppy

6. (a) Write a brief note on economic importance of legumes. (5)
- (b) Give a detailed account of plantation, harvesting and processing of tea. (5)
- (c) Define centre of origin of cultivated plants. Discuss in relation to Vavilov's concept. (5)
7. (a) What is retting ? Explain this process in jute. (5)
- (b) Coconut is a multi-purpose tree. Comment on the statement. (5)
- (c) What are the products and by- products of sugarcane industry ? Also mention their uses (5)