

**Sr. no. of paper : 8536**

**C**

**Roll no.:**

Unique Paper Code: 216301

Name of the Paper: BTHT 304 : Plant Resource Utilization

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

Semester: III

Duration: 3 hours

Maximum Marks: 75 Marks

**Instruction for candidates**

Attempt five questions in all. Question No. 1 is compulsory. All questions carry equal marks. Draw diagrams and write botanical names wherever necessary. Attempt all parts of question together.

Q 1(a). Fill in the blanks:

0.5 x 10 = (5)

- i. Fruit mature underground in \_\_\_\_\_.
- ii. Phenomenon of biennial/ alternate bearing is commonly met in \_\_\_\_\_.
- iii. \_\_\_\_\_ is a non – alcoholic beverage.
- iv. \_\_\_\_\_ is an example of bast fibre.
- v. Paper used in cigarette wrapping \_\_\_\_\_.
- vi. Leaf fibres of \_\_\_\_\_ are used for making tea bags.
- vii. Legumes are important to both \_\_\_\_\_ and \_\_\_\_\_.
- viii. A drug plant used as myocardial stimulant is \_\_\_\_\_.
- ix. \_\_\_\_\_ is a plant showing cauliflory.
- x. Practice of ratooning is used for propagating \_\_\_\_\_.

(b). Match the following:

0.5 x 10 = (5)

- |                      |                    |
|----------------------|--------------------|
| i. Black pepper      | A. No vessel       |
| ii. Mango            | B. Solanaceae      |
| iii. Rauwolfia       | C. Female plant    |
| iv. Para rubber      | D. Reserpine       |
| v. Opium             | E. Mustard         |
| vi. Fatty oil        | F. Anacardiaceae   |
| vii. <i>Cannabis</i> | G. "King of Spice" |
| viii. Tobacco        | H. Essential oil   |
| ix. Pine             | I. Codeine         |
| x. Rose              | J. Euphorbiaceae   |

- (c). Give botanical name and family of the following: 1 x 5 = (5)
- i. Linseed
  - ii. Papaya
  - iii. Surface fibre
  - iv. Cocoa
  - v. Wonder bean
- Q 2. Draw well labelled diagrams of the following: 5 x 3 = (15)
- i. L.S wheat caryopsis
  - ii. T.S schizocarpic fruit
  - iii. T.S jute stem
  - iv. C.S of potato tuber
  - v. Branching pattern of cocoa
- Q 3. Differentiate between: 5 x 3 = (15)
- i. Lathyrism and Favism
  - ii. Black tea and Green tea
  - iii. White jute and Tossa jute
  - iv. Indica and Japonica rice
  - v. Dry and wet processing of coffee
- Q 4. Write short notes on: 3 x 5 = (15)
- i. Origin of hexaploid wheat
  - ii. Extraction of essential oil
  - iii. Products and by products of sugarcane industry
- Q 5. Mention the scientific name, morphology, chief chemical constituents and uses of the following: 3 x 5 = (15)
- i. Quinine
  - ii. Black pepper
  - iii. Hemp
- Q 6 (a). What is retting? Explain this process in Jute. (5)
- (b). Elaborate on the health implication and uses of oils and fats. (5)
- (c). Comment on therapeutic and habit forming nature of two medicinal plants. (5)
- Q 7 (a). Critically explain how domestication resulted in loss of genetic diversity. Write down the importance of germplasm diversity. (5)
- (b) Write about the centre of origin of crops plants. Discuss in relation to Vavilov's concept. (5)
- (c) Give a brief account of tapping and uses of rubber. (5)