

2023

BOTANY

Paper : BOTHC3066

(Economic Botany)

Full Marks : 60

Pass Marks : 24

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following questions (any five) :

1×5=5

(a) The gradual loss of variability in the cultivated forms and in their wild relatives is referred to as

(i) gene bank

(ii) genetic erosion

(iii) conservation

(iv) genetic drift

(2)

- (b) The most cultivated crop in India among cereals is
- (i) rice
 - (ii) wheat
 - (iii) maize
 - (iv) sorghum
- (c) The type of fruit of leguminous crops are called
- (i) pulses
 - (ii) legume or pod
 - (iii) caryopsis
 - (iv) false fruit
- (d) The popular method of potato cultivation is
- (i) dibbling
 - (ii) broadcasting
 - (iii) throwing
 - (iv) ridge & furrow method

(3)

- (e) The scientific name of clove is
- (i) *Cinnamomum tamala*
 - (ii) *Syzygium aromaticum*
 - (iii) *Syzygium cumini*
 - (iv) *Syzygium jambos*
- (f) Which is the right sequence of processing of black tea?
- (i) Withering > rolling > fermentation > drying > grading
 - (ii) Withering > fermentation > rolling > drying > grading
 - (iii) Withering > rolling > fermentation > grading > drying
 - (iv) Withering > drying > grading > rolling > fermentation
- (g) Which of the following plants yields both oil and fibre?
- (i) *Cocos nucifera*
 - (ii) *Brassica campestris*
 - (iii) *Arachis hypogaea*
 - (iv) *Linum usitatissimum*

(4)

(h) Which chemical is used for coagulation of rubber latex?

- (i) Formic acid
- (ii) Acetic acid
- (iii) Hydrochloric acid
- (iv) Lactic acid

(i) The drug opium is extracted from

- (i) *Papaver somniferum*
- (ii) *Cannabis sativa*
- (iii) *Digitalis purpurea*
- (iv) *Cinchona officinalis*

(j) The annual ring is composed of

- (i) softwood
- (ii) spring wood and autumn wood
- (iii) spring wood
- (iv) hardwood

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(Continued)

(5)

2. Answer the following questions (any five) :

2×5=10

- (a) From which countries Groundnut and Potato plants are introduced to India?
- (b) What are lint and fuzz fibres?
- (c) Give two examples of high-yielding varieties of potato.
- (d) Write scientific names of two spice yielding plants from the family Apiaceae.
- (e) Differentiate between black tea and green tea.
- (f) What are millets? Give one example of millet grown in India along with its scientific name.
- (g) What is fodder legume? Mention two examples.

3. Answer the following questions (any five) :

5×5=25

- (a) Briefly describe about origin, morphology and uses of chickpea.

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(Turn Over)

- (b) Write a note on importance of legumes to man and ecosystem.
- (c) Define timber. What are the characteristic features of a good timber? Mention the economic value of teak wood. $1+2+2=5$
- (d) Write botanical name, family, part used and one economic importance of each of the following : $1+1+1+1+1=5$
- Fennel
 - Saffron
 - Digitalis
 - Black peeper
 - Cotton
- (e) Discuss in brief the products and by-products of sugarcane.
- (f) Write a note on centre of origin.
- (g) Compare and contrast between essential oils and fatty oils.
- (h) What is natural rubber? Write the scientific name and family of the plant from which rubber is extracted most. Mention the uses of rubber. $1+1+3=5$
- (i) What is CTC? Give a concise note on processing of CTC tea. $1+4=5$

4. Answer the following questions (any two) : $10 \times 2 = 20$
- (a) Write an account on cultivation, harvesting, processing and economic utilization of rice. $5+2+1\frac{1}{2}+1\frac{1}{2}=10$
- (b) Write the botanical names, families, economically important plant parts and uses of linseed and coconut. Describe briefly two methods used for extraction of vegetable oils. $2+2+6=10$
- (c) What are fibres in plants? How are they important for us? Discuss about the steps of processing of jute fibre. Mention the utilizations of jute fibre. $2+2+5+1=10$
- (d) What is nicotine? Write the scientific name and family of the plant source of nicotine. Discuss about the use and health hazards of nicotine. $1+2+7=10$

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