3 (Sem–4/CBCS) BOT SE 1/2/3

2024

BOTANY

(Skill Enhancement Course)

Answer the Questions from any one Option.

OPTION–A

(Nursery and Gardening)

Paper : BOT–SE–4014

OPTION–B

(Floriculture)

Paper : BOT–SE–4024

OPTION–C

(Intellectual Property Rights)

Paper : BOT–SE–4034

Full Marks : 50

Time : Two hours

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

*Answer **either** in English **or** in Assamese.*

OPTION-A

(*Nursery and Gardening*)

Paper : BOT-SE-4014

1. Answer **any four** of the following questions :

   1×4=4

   (i) What is seed bank ?

   (ii) What is cryopreservation ?

   (iii) What is budding ?

   (iv) What is air layering ?

   (v) What is scion ?

   (vi) Mention *one* rooting hormone.

2. Answer **any three** of the following questions :

   2×3=6

   (i) What is greenhouse ?

   (ii) Mention different types of gardens.

   (iii) Write the botanical name and family of cabbage and onion.

   (iv) What is seed viability ?

   (v) What is landscaping ?

3. Answer **any two** questions :   5×2=10

   (i) What are the scopes of a nursery ?

   (ii) Describe different types of vegetative propagations.

   (iii) Describe the method of cultivation of brinjal.

   (iv) What is glass house ? Write the advantages and disadvantages of glass house.

4. Answer **any three** questions :   10×3=30

   (i) What is park ? Write the different components of a successful park.

   (ii) What is disease management ? Describe the methods of diseases management for cabbage and tomato.   2+(4+4)=10

   (iii) What do you mean by seed dormancy ? Describe the causes and methods of breaking seed dormancy.   2+(4+4)=10

   (iv) Write notes on :

   (a) Mist Chamber

   (b) Shade House

(v) Describe the methods of seed testing and certification.

(vi) Describe the processes for building up of infrastructure of a nursery.

OPTION–B

(Floriculture)

Paper : BOT–SE–4024

1. Answer the following questions :   1×4=4

নিম্নলিখিত প্ৰশ্নসমূহৰ উত্তৰ লিখা ঃ

(a) What do you mean by mulching?

'মাল্‌চিং' মানে কি বুজা?

(b) What is terrarium?

'টেৰেৰিয়াম' মানে কি?

(c) Name a common disease of rose.

গোলাপৰ এবিধ সঁচৰাচৰ হোৱা ৰোগৰ নাম লিখা।

(d) Epinastic movements of plants are controlled by _____.

(Fill in the blank)

উদ্ভিদৰ 'এপিনেষ্টিক' গতি _____ নিয়ন্ত্ৰণ কৰে।

(খালী ঠাই পূৰণ কৰা)

2. Mention the difference between :   2×3=6

পাৰ্থক্য লিখা ঃ

(a) Safwood and heartwood cutting

ৰসবাহী কাঠ কলম আৰু সাৰকাঠ কলম

(b) Cacti and succulents

সাগৰ ফেনা আৰু ৰসাল উদ্ভিদ

(c) Layering and grafting

জাপ কলম আৰু জোৰা কলম.

3. Write short notes on the following : *(any two)*

5×2=10

তলত দিয়াবোৰৰ বিষয়ে চমু টোকা লিখা ঃ *(যিকোনো দুটা)*

(a) Plant growth hormones

উদ্ভিদৰ বৃদ্ধি নিয়ন্ত্ৰক

(b) Ornamental Palms

সৌন্দৰ্য্যবৰ্দ্ধক খেজুৰ জাতীয় উদ্ভিদ

(c) Persian garden

পাৰ্চী উদ্যান

(d) Factors affecting flower production

ফুলৰ উৎপাদনক প্ৰভাৱান্বিত কৰা কাৰকসমূহ

4. Answer the following : *(any three)*

10×3=30

তলত দিয়াবোৰৰ উত্তৰ লিখা ঃ *(যিকোনো তিনিটাৰ)*

(a) What is a nursery ? Write briefly about the various components and processes involved in raising seedy.

নাৰ্চাৰী মানে কি? নাৰ্চাৰীত গুটি অংকুৰণৰ পিছত পুলিৰ পৰিচৰ্য্যাত ব্যৱহৃত বিভিন্ন উপাদান আৰু পদ্ধতিবোৰ চমুকৈ বৰ্ণনা কৰা।

(b) What is 'bonsai' ? Discuss the techniques used to prepare bonsai.

2+8=10

'বনছাই' কি? বনছাই প্ৰস্তুতকৰণত নিয়োগ কৰা বিভিন্ন কৌশল আৰু সাজোন প্ৰকৰণৰ বিষয়ে লিখা।

(c) Which plants are called 'Lungs of the earth' ? Briefly describe few commonly used indigenous shade plants of Assam with their scientific names in social forestry.

2+8=10

পৃথিৱীৰ হাওঁ-ফাঁও বুলিলে কোনবিলাক উদ্ভিদক বুজাই? সামাজিক বনানীকৰণত ব্যৱহৃত অসমৰ থলুৱা ছা-প্ৰদানকাৰী কেইবিধ মান উদ্ভিদৰ বৈজ্ঞানিক নামসহ বৰ্ণনা কৰা।

(d) Discuss briefly the principles and features considered for establishing a successful garden.

এখন সফল উদ্যান স্থাপনত অৱলম্বন কৰা মূল-নীতি আৰু বৈশিষ্ট্যসমূহ আলোচনা কৰা।

(e) "Orchids are considered as the gems of horticulture." Justify the statement. Write the cultivation techniques of orchids.   2+8=10

"অৰ্কিডক বাগান শস্যৰ মুকুতা বুলি অভিহিত কৰা হয়।" উক্তিটোৰ সপক্ষে যুক্তি দাঙি ধৰা। অৰ্কিডৰ খেতিত ব্যৱহৃত কৌশলসমূহ বহলাই লিখা।

(f) Name the largest botanical garden of India. Mention the salient features and importance of a botanical garden.   1+(4+5)=10

ভাৰতবৰ্ষৰ আটাইতকৈ ডাঙৰ উদ্ভিদ উদ্যানখনৰ নাম কি? এখন উদ্ভিদ উদ্যানৰ প্ৰধান বৈশিষ্ট্য আৰু তাৰ গুৰুত্ব বিষয়ে বৰ্ণনা কৰা।

OPTION-C

(Intellectual Property Rights)

Paper : BOT–SE–4034

1. Answer the following questions :   1×4=4

   (a) The Biodiversity Act was established in the year _____ .

   (b) Which regional product from Assam received the first geographical indication (GI) tag ?

   (c) What is the full-form of PCT ?

   (d) Who grants compulsory licensing (CL) ?

2. Write short notes on the following :   2×3=6

   (a) Cryopreservation

   (b) Domain name

   (c) Registration of design

3. Answer **any two** of the following :   5×2=10

   (a) What is TRIPS Agreement ? Outline the main features of the TRIPS Agreement.   1+4=5

(b) Write down the principal features of the Paris Convention.

(c) Briefly enumerate the status of GI in international level.

(d) Can a micro-organism be patented in India? What are the criteria for its grant?   1+4=5

4. Answer *any three* of the following :

                                                         10×3=30

(a) What is trademark? Explain the different types of trademarks with examples. What is the process of registration of trademark?

                                                         2+5+3=10

(b) Define Industrial Design and discuss the need to protect it as an intellectual property. Discuss infringement of Industrial Designs.   2+4+4=10

(c) What is Copyright? Whether it has any time limit? If yes, mention. Explain the different types of works protected under the Copyright Law.   2+2+6=10

(d) What is patent information? Briefly explain the significance of using the patent information. How does a patent document help in research and development (R&D)?   2+5+3=10

(e) What is traditional knowledge (TK)? Explain India's initiative to protect TK on the international arena.   2+8=10

(f) What are Plant Breeder's Rights (PBRs)? What are the objectives of PBRs? Write about the duration of protection for a registered variety.

                                                         2+5+3=10