

11. Compare and contrast :

- (a) Alpha vs. beta diversity
- (b) Basic vs. derived collections
- (c) In-situ vs. ex-situ conservation
- (d) Plant breeders rights vs. Farmers rights
- (e) v-GURT vs. t-GURT

12. Define biodiversity. What do you know about the Biological Diversity Act? When it was enacted? When the Biological Diversity Rules were notified? Discuss its salient provisions. Add a note on the functions and powers of the National Biodiversity Authority.

13. Give detailed information on any **two** of the following :

- (a) Evolutionary pathway of sugarcane
- (b) Patents
- (c) UPOV

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(Printed Pages 4)

(20518)

Roll No.

M.Sc.(Biotech.)-II Sem.

NP-3335

M.Sc. (Biotech.) Examination, May 2018

PLANT GENETIC RESOURCE

Conservation & Sustainable Use

(H-202)

[M.Sc.(Bio-Tech.)]

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt questions from **all** sections as per given directions.

Section-A

Note : All questions in this section are **compulsory**. Each question carries **2** marks. Give very brief answer not exceeding **75** words.

5×2=10

P.T.O.

Write brief and precise information on the following:

1. Earth summit
2. U's triangle
3. Active collections
4. CIMMYT
5. Trademarks

Section-B

Note : Attempt **any two** questions of the following. Each question carries **5** marks.

Give short answers not exceeding **200** words. $5 \times 2 = 10$

6. What is cryopreservation? Explain the merits and demerits of cryopreservation. What types of materials are subjected to cryopreservation?
7. Differentiate between center of origin center of diversity. List the world centers of origin of crop plants. Name the important crop

plants of Indian centre of origin.

8. Explain biological species concept. What are its limitations? How it differs from Phylogenetic species concept?

Section-C

Note : Give detailed information on any **three** of the following **five** questions. Each question carries **10** marks. $10 \times 3 = 30$

9. What are future harvest centres? List all of them along with their location. Discuss the mandate, objectives and contributions of IPGRI to world agriculture.
10. Write short notes of the following :
 - (a) Biosphere reserves
 - (b) Community conservation
 - (c) Red data books
 - (d) Causes for the loss of biodiversity
 - (e) Role of FAO in conservation of PGR

(4)

12. Differentiate between Indica and Japonica races of cultivated rice. Discuss in detail the evolution of cultivated rice.
13. Differentiate between germplasm and genetic resource. Why conservation of PGR is necessary? What are the major methods of conservation? Discuss in detail in-situ conservation of germplasm.

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(20517)

M. Sc. (Biotech.)-II Sem.

Roll No. 169353202

NP-3335

M. Sc. (Biotech.) Examination, May 2017

PLANT GENETIC RESOURCE

Conservation & Sustainable Use

(H-202)

[M. Sc. (Biotech.)]

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

All questions in this Section are compulsory. Each question carries 2 marks. Give very brief answer not exceeding 75 words. $2 \times 5 = 10$

Write brief and precise information on the following :

1. Biological species concept.

(2)

2. Plant quarantine.
3. Cryobank.
4. NBPGR.
5. TRIPs.

Section-B

(Short Answer Questions)

Attempt any *two* questions of the following.
Each question carries 5 marks. Give short answers not exceeding 200 words. $5 \times 2 = 10$

6. Define center of diversity. How it differs from center of origin? List the major centers of diversity.
7. Define biodiversity. Discuss the important values and uses of biodiversity. Add a note on threats to biodiversity.
8. Give the evolutionary pathway of maize. Add a note on the role of Teosinte in the evolution of maize.

NP-3335

(3)

Section-C

(Detailed Answer Questions)

Give detailed information on any three of the following five questions. Each question carries 10 marks. $10 \times 3 = 30$

9. What are IARCs? How many? Why they were renamed as Future Harvest Centres? Name the Future Harvest Center located in India and discuss its mandate and significant contributions to Indian agriculture.
10. Write short notes on the following :
 - (a) Core collections
 - (b) Terminator technology
 - (c) Biodiversity hot spots
 - (d) Biodiversity bill 2002
 - (e) Farmers rights.
11. What is CGIAR? What are its objectives? Discuss in detail the role/contributions of CGIAR in conservation of PGR. Add a note on FAO.

NP-3335

V
(20516)

Roll No. | S83502S31

M. Sc. (Biotech.) -II Sem.

NP-3335

M. Sc. (Biotech.) Examination, May 2016

PLANT GENETIC RESOURCE

Conservation & Sustainable Use

(H-202)

(M.Sc. Biotech.)

Time : Three Hours]

[Maximum Marks : 50

Note: Attempt questions from all the Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 2 marks. Very short answer is required not exceeding 75 words. $2 \times 5 = 10$

Write in brief about the following :

1. CBD.

(2)

2. Farmer's Rights.
3. Terminator and Traitor techniques.
4. Cryobanks.
5. Core collections.

Section-B

(Short Answer Questions)

Attempt any *two* questions from this Section. Each question carries 5 marks. Short answer is required not exceeding 200 words. $5 \times 2 = 10$

6. Write a detailed note on cryopreservation.
7. Discuss in brief about sanitary and phytosanitary system (SPS).
8. Write a detailed note on *in situ* conservation.

Section-C

(Long Answer Questions)

Attempt any *three* questions from this Section. Each question carries 10 marks. Answer must be descriptive. $10 \times 3 = 30$

(3)

9. What do you mean by centres of origin? Discuss about the various centres of origin of cultivated plants and how it is helpful to plant breeders.
10. Write details note on the following:
 - (a) Alpha and Beta diversity
 - (b) Genetic erosion.
11. Discuss the main objectives of NBPGR. Also describe its organization and their functions.
12. Discuss in detail about the evolution of cotton crop and its genetic improvement programme in India.
13. What is plant quarantine? Discuss its relevance in plant breeding giving suitable examples.