

TELANGANA UNIVERSITY, NIZAMABAD - TELANGANA
UNDERGRADUATE COURSES (UNDER CBCS 2021-2022 ONWARDS)
B.Sc. (CBCS) III Year (Practical) Examination
Semester-V
Paper - V: (A) Biodiversity & Conservation
(DSE - 1: ELECTIVE)

Time: 2½ Hours

Max. Marks: 25

I. Identify and describe Biodiversity value of

2x3= 6M

a) Medicinal

Catharanthus roseus, *Tinospora cordifolia*, *Phyllanthus emblica*, *Ocimum sp.*, and *Azadirachta indica*.

b) Timber

Acacia nilotica, *Tectona grandis* and *Azadirachta indica*

c) Fruit

Mangifera indica (Mango), *Ziziphus mauritiana*, *Psidium guajava* (Guava), *Annona squamosa*.

II. Any two available ornamental plants and their uses.

2x2=4M

Pongamia pinnata, *Butea monosperma*, *Spathodea sp.*, *Delonix regia*, *Jacaranda mimosifolia*, *Cassia fistula*, *Mimusops elengi*, *Acacia leucophloea* and *Albizia lebeck*

III. Comment on the specimens A, B & C:

2x3=6M

Nuts:

- a. *Anacardium occidentale* (Cashew),
- b. *Terminalia catappa* (Badam),

Beverages:

- c. *Madhuca indica*,
- d. *Camellia sinensis* (Tea),
- e. *Coffea arabica* (Coffee),
- f. *Borassus flabellifer* (Toddy palm),
- g. *Caryota urens*

IV. Identify and describe Biodiversity value of the given slides D & E (Identification-1, Notes-1)

2 x 2 = 4 M

Hydrophytes

- a. *Eichhornia*,
- b. *Hydrilla*
- c. *Pistia*
- d. *Nymphaea*
- e. *Vallisneria*

Xerophytes

- f. *Asparagus*
- g. *Opuntia*
- h. *Euphorbia milli*
- i. *Casuarina*
- j. *Calotropis*

V. Field trip Herbarium

3M

VI. Record

2M

Handwritten notes:
17/12/2022

Handwritten signature: Anusha
Chairman
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TELANGANA UNIVERSITY, NIZAMABAD –TELANGANA
UNDERGRADUATE COURSES (UNDER CBCS 2021-2022 ONWARDS)
B.Sc. (CBCS) III Year (Practical) Examination
Semester-V
Paper - V: (B) Economic Botany
(DSE - 1: ELECTIVE)
Practical Question Bank

Time: 2½ Hours

Max. Marks: 25

Note: Answer all questions. Draw well labeled diagrams wherever necessary

I. Conduct the experiment allotted to you. Write procedure, give results and inference
(Procedure: 2 Marks + Experimentation: 3 Marks + Observations or recordings of results:
2 Marks + Inference: 1 Marks) 8 Marks

1. Sections and microchemical tests:

- a. Wheat
- b. Gram (legumes)
- c. Soybean.
- d. Black Pepper
- e. Clove
- f. Tea
- g. Cotton

2. Quantitative estimation of proteins in millets / cereals using Kjeldhal method.

II. Write procedure, give results and inference (Procedure: 2 Marks + Observations or
recordings of results: 2 Marks + Inference: 1 Marks) 5 Marks

8. Identification of starch granules.

- a. Millets
- b. Wheat
- c. Rice
- d. Maize

III. Critical notes on 4 spotters (specimen/photograph/sketch without labeling)
(Identification: 1 + Notes: 1 for each spotter; 2 spots each from S. No. 9 & 10) 2x4=8 M

9. Nutrient values and commercial status

- a. Cashew nut,
- b. Almond
- c. Walnut

10. Uses and health implications:

- a. Groundnut
- b. Sunflower
- c. Coconut
- d. Linseed
- e. Brassica

IV. Herbarium of economically important plants and vegetable plants 2 M

V. Record 2 Marks


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TELANGANA UNIVERSITY, NIZAMABAD –TELANGANA
UNDERGRADUATE COURSES (UNDER CBCS 2021-2022 ONWARDS)
B.Sc. (CBCS) III Year (Practical) Examination
Subject: Botany
Semester-V Paper - V: (C) Seed Technology
(DSE – 1: ELECTIVE)
Practical Question Bank

Time: 2½ Hours

Max. Marks: 25

Note: Answer all questions. Draw well labeled diagrams wherever necessary

I. Conduct the experiment allotted to you. Write procedure, give results and inference (Procedure: 2 Marks + Experimentation: 3 Marks + Observations or recordings of results: 2 Marks + Inference: 2 Marks) 9 Marks

1. Testing of seed viability using 2, 3, 5 – triphenyl tetrazolium chloride (TTC).
2. Estimation of amylase activity of germinating seeds.
3. Demonstration of seed dressing using fungicides to control plant diseases.
4. Demonstration of seed dressing using biofertilizers (BGA) to enrich nutrient supply.

II. Write procedure, give results and inference (Procedure: 2 Marks + Observations or recordings of results: 2 Marks + Inference: 2 Marks) 6 Marks

5. Demonstration of Emasculation, bagging of flower for hybrid seed production.
6. Demonstration of dissection of dicot embryo (bean) and monocot embryo (maize).
7. Demonstration of pollen viability using Evan's blue staining (*Hibiscus*).
8. Give details on visit to research institute/seed testing and certification laboratory.

III. Critical notes on 4 spotters (specimen/photograph/sketch without labeling)

(Identification: 1 + Notes: 1 for each spotter) 2x4=8 Marks

9. Harvesting and importance of Rice seeds
10. Harvesting and importance of Maize seeds
11. Harvesting and importance of Cotton seeds
12. Harvesting and importance of Groundnut seeds
13. Harvesting and importance of Sunflower seeds
14. Orthotropous ovule
15. Anatropous ovule
16. Campylotropous ovule
17. *Hibiscus* pollen
18. Grass pollen
19. Seed bank
20. BGA

IV. Record

2 Marks