# PGIVS 1586 A-16 M.Sc. IVth Semester Degree Examination Biotechnology (Plant Biotechnology) Paper: HCT - 4.1

Time: 3 Hours Maximum Marks: 80

#### Instructions to Candidates:

- 1. Section 'A' is compulsory
- 2. Answer B & C sections as per instruction.

#### Section - A

Answer all questions

 $(10 \times 2 = 20)$ 

- 1. Protoclone
- 2. Androgenesis
- 3. Opines
- 4. SNP
- 5. PR proteins
- 6. Roundup tomato
- 7. Bioplastic
- 8. GEAL
- 9. Peimer designing

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10. Bioenergy

#### Section - B

Answer any four of the following:

 $(4 \times 6 = 24)$ 

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- 11. Tissue culture medium composition- a note.
- 12. Write a note on protoplast isolation.
- 13. Explain technique of vector construction in plant transformation.

- 14. Explain the strategy for inducing virus resistance in transgenic plants.
- 15. Write a note on seed storage proteins.
- **16.** Explain the quality parameters of biodisel.

#### Section - C

Answer any **three** of the following:

 $(12 \times 3 = 36)$ 

- 17. Write an account on applications of plant tissue culture in horticulture.
- **18.** Explain the methodology of producing Bt cotton using <u>Agrobacterium</u> mediated gene transfer
- 19. Discuss the importance and technology of marker assisted selection.
- 20. "Plant as a bioreactor" Discuss with suitable example in commercial sector.

#### PGIVS 1587 A-16

### M.Sc. IVth Semester Degree Examination Biotechnology

(Medical and Nanobiotechnology)

Paper: HCT-4.2

Time: 3 Hours Maximum Marks: 80

#### Instructions to Candidates:

- 1. Section 'A' has all compulsory questions.
- 2. Answer 'B' & 'C' sections as per instructions.

#### Section - A

Answer the following in brief:

 $(10 \times 2 = 20)$ 

- 1. Infection
- 2. Blastomycosis
- 3. Antifungal drugs.
- 4. Drug sensitivity
- 5. Chemotherapy
- **6.** Induces
- 7. Wassermann reaction
- 8. Scarlet fever
- 9. Nanoparticles
- 10. Bio sensors

#### Section - B

Answer any **four** of the following:

 $(4 \times 6 = 24)$ 

- 11. Gonorrhoeae.
- 12. Widal Test

- 13. Structure of viruses.
- 14. Interferons
- Recent trends in Nanobio technology
- 16. Amoeobiosis.

#### Section - C

Answer any **three** of the following:

 $(3 \times 12 = 36)$ 

- 17. Describe morphological, cultural and pathogenicity of enterice fever
- 18. Discuss in detail the normal microflora of the human body.
- 19. Write a note on mode of action of penicillin.
- **20.** Give an account of synthesis of nanostructures and its applications.

## PGIVS 1588 A-16 M.Sc. IVth Semester (CBCS) Degree Examination Biotechnology (Environmental Biotechnology)

Paper: SCT - 4.1

Time: 3 Hours Maximum Marks: 80

#### Instructions to Candidates:

- 1. Section 'A' has all compulsory questions
- 2. Answer B & C sections as per instructions.

Section - A

 $(10 \times 2 = 20)$ 

Answer the following:

- 1. Biofilm
- 2. Rhizobium
- 3. Gene bank
- 4. Odorous compounds
- **5.** Ecosystem
- 6. Biological treatment of water
- 7. Sludge blanket
- **8.** Radio active pollutants
- 9. Macrophytes
- 10. Renewable energy

#### Section - B

Write any four of the following:

 $(4 \times 6 = 24)$ 

- 11. Describe the pollution of milk
- 12. Explain substituted hydrocarbons
- 13. Write an account on Bioaugmentation

- 14. Explain the genetic testing
- **15.** Treatment of water from dairy industry
- **16.** Write an account on organic farming

#### Section - C

Answer any **three** of the following:

- $(3 \times 12 = 36)$ 17. Describe in detail about water as a natural resource & its management.
- Explain the method of vermicomposting.
- Write an account on Genemutation
- Explain the role of microbes in decay & degradation of Biomass.