Roll No. _____ [Total No. of Pages : 2

PGIVS- 1601 A-18
M.Sc. IVth Semester Examination
BIOTECHNOLOGY
(Plant Biotechnology)
Paper : HCT - 4.1

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

*1) Section - A has **all** compulsory questions.*

2) Answer 'B' and 'C' sections as per instructions.

Section - A

Answer the followng in Brief. **(10×2=20)**

1. Cybrid.

2. Microinjection.

3. X-gol

4. Substantive hybridization.

5. Cryopreservation.

6. RFLP.

7. Ligare.

8. Thermal stress.

9. Alkaloids.

10. Caulogenesis.

Section - B

Answer any **four** of the following : **(4×6=24)**

11. Somaclonal variation.

12. Chloroplast transformation.

13. Technique of particle bombardment.

14. Microspore culture.

15. Importance of IPR.

16. Post harvest techniques.

Section - C

Answer the **three** of the following : (3×12=36)

17. Explain the method and importance of Agropacterium mediated gene transformation.

18. Discuss plant as bioreactor in the vitro production of pharmaceutically important compounds.

19. Write a detailed account on GM products.

20. What is molecular polymorphism? Discuss role of molecular markers in crop improvement.

Roll No. _____ [Total No. of Pages : 2

PGIVS- 1602 AA-18
M.Sc. IVth Semester Examination
BIOTECHNOLOGY
(Medical & Nano Biotechnology)
Paper : HCT - 4.2

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates:

*1) Section - A has **ALL** compulsory questions.*

2) Answer 'B' and 'C' sections as per instructions.

Section - A

Answer the followng in brief. **(10×2=20)**

1. Prophylaxis.
2. Tetanospasmin.
3. Coagulase reaction.
4. Amoebiosis.
5. HIV
6. Antiviral drugs.
7. Nanowires.
8. Sol process.
9. Gonococcus.
10. Somatic antigens.

Section - B

Answer any **FOUR** of the following : **(4×6=24)**

11. Microflora of the oral cavity.
12. Staphytococcal diseases.
13. Tuberculosis.

14. VDRL - Test.

15. Mode of action of penicillin.

16. Application of phage in thesapeutics.

Section - C

Answer the **THREE** of the following : **(3×12=36)**

17. Describe the pathogencity, symptoms and treatment of typhoid.

18. Write a detailed note on structure, cultivation and replication of viruses.

19. Discuss in detail the use of biosensors in medical diagnostics.

20. Explain in detail the various router of transmission of microbes.

Roll No. _____ [Total No. of Pages : 2

PGIVS- 1600 A-18
M.Sc. IVth Semester 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' and 'C' sections as per instructions.

Section - A

Answer the followng questions. **(10×2=20)**

1. Biohydrogen.
2. Pollution indicactors.
3. Surfactants.
4. OZone.
5. Bioaugmentation.
6. Ultra filtration.
7. Biological oxygen Demand.
8. Organic pollutants.
9. Azolla.
10. Macrophytes.

Section - B

(4×6=24)

Answer any **four** of the following :

11. Radioactive pollution.
12. Bioethanol.
13. Hydrocarbons.

14. Plant ecosystem.

15. Anaerobic filters.

16. Genetic sensors.

Section - C

Answer the **three** of the following : **(3×12=36)**

17. What are natural resources? Explain renewable & non renewable resources.

18. Discuss in detail about physical and chemical treatment of sewage water.

19. Discuss in detail about effect of and other nanoparticles.

20. Disuss in detail on problems and controlling measures of solid waste management.