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PG4S-012-B-23
M.Sc. IV Semester (CBCS) Degree Examination
BIOTECHNOLOGY
Medical Biotechnology and Nanobiotechnology
Paper : HCT - 4.2

Time : 3 Hours

Maximum Marks :80

Instruction to Candidates:

- 1) Section "A" has all compulsory questions.
- 2) Answer "B" and "C" sections as per instructions.

SECTION - A

Write brief notes on the following.

(10×2=20)

1. Epidemiology
2. Vectors
3. Nanowires
4. HIV
5. Interferons
6. Biosensors
7. Infection
8. Sol Process
9. Plaque Assay
10. Drug resistance in bacteria

SECTION - B

Write a short note on any **FOUR** of the following.

(4×6=24)

11. Write a brief note on viral replication.
12. Normal Microflora of the Intestine.
13. Pathogenicity of Staphylococcus.
14. Widal Reaction.
15. Baltimore classification of viruses.
16. Mode of action of Streptomycin.

SECTION - C

Answer any **Three** of the following.

(3×12=36)

17. Describe the morphology, cultural characters, and pathogenicity of Gonorrhoea.
 18. Give an account of the concept and development of Biosensors.
 19. Explain the mode of action of Penicillin.
 20. Describe the pathogenicity, symptoms and treatment of Typhoid.
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PG4S-013-B-23
M.Sc. IV Semester (CBCS) Degree Examination
BIOTECHNOLOGY
Environmental Biotechnology
Paper : SCT - 4.1

Time : 3 Hours

Maximum Marks :80

Instructions to the Candidates:

- 1) Section "A" has all compulsory questions.
- 2) Answer "B" and "C" sections as per instructions.

SECTION - A

Answer the following in brief.

(10×2=20)

1. Landfills
2. Photodegradation
3. Filters
4. Sedimentation
5. BOD Sensor
6. Green house gases
7. Tannery
8. Biological pollutants.
9. Estury
10. Eutrophication

SECTION - B

Answer any **Four** of the following.

(4×6=24)

11. Bioremediation of contaminated ground water.
12. Role of Biotechnology in environmental protection.
13. Genetic Testing.
14. Genetically Engineered Organisms.
15. Substituted Hydrocarbons.
16. Renewable resources.

SECTION - C

Answer any **Three** of the following.

(3×12=36)

17. Describe the process of Bioremediation of contaminated soils and waste land.
 18. Discuss in detail about sources of pollution and treatment methods for air and water.
 19. Write a detailed account on Gene mutation, Genetic testing and Genetic sensors.
 20. Explain solid waste management and bio composting with suitable examples.
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