

PGIVS 1594 A-16
M.Sc. IVth Semester Degree Examination
Environmental Science
(Water Quality Science and Technology)
Paper : SCT - 4.2

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:*Answer All sections.***Section - A**

Write brief notes on all ten of the following :

(10×1=10)

1. Dissolved Oxygen
2. Membrane filtration
3. Water quality index
4. BOD
5. IWMI
6. Flocculation
7. Peak water
8. Organic pollution
9. *Salmonella*
10. Heavy metals

Section - B

Write short notes on any five of the following :

(5×3=15)

11. Oxygen reduction potential
12. Total hardness
13. Water dimer

14. Slow sand filtration
15. Water conservation
16. Chemical properties of water

Section - C

Write notes on any **five** of the following :

(5×7=35)

17. Total suspended solids
18. Pesticide pollution
19. ICMR standards of drinking water
20. Ultrapure water production
21. Water resources
22. Surface water Standards

Section - D

Answer any **two** of the following :

(2×10=20)

23. Discuss the water pollution and water - borne diseases
 24. Write an account of water quality parameters
 25. Describe water treatment methods and purification of drinking water.
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PGIVS 1593 A-16
M.Sc. IVth Semester Degree Examination
Environment Science
(Research Methodology)
Paper : HCT - 4.2

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:*Answer All sections.***Section - A**Write brief notes on all **ten** of the following :**(1×10=10)**

1. Research
2. Bibliographic databases
3. Toposheets
4. Standard Deviation
5. OHP
6. Chromatography
7. Impact factor
8. LCD Projector
9. Median
10. Reprography Services

Section - BWrite short notes on any **five** of the following :**(3×5=15)**

11. Scope of the Project Report
12. Maps and Charts
13. Geographic Information System

14. Collection and preparation of literature
15. Examination and Evaluation
16. Electrophoresis

Section - C

Write notes any **five** of the following :

(5×7=35)

17. Explain the principles of Titrimetry and Gravimetry methods.
18. Discuss in detail about the preparation and presentation of research report for various publications.
19. Briefly discuss the applications of HPLC
20. Add a note on microbiological analysis of water and soil samples.
21. Discuss in detail about the importance of field equipments in research
22. Explain the various statistical techniques.

Section - D

Answer any **two** of the following :

(2×10=20)

23. Add a note on the principle and applications of
 - a) X - ray fluorescence
 - b) X - ray diffraction
 24. Explain the applications of the Atomic Absorption Spectrophotometry
 25. Explain in detail the instrumental methods of analysis of water samples.
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PGIVS 1592 A-16
M.Sc. IVth Semester Degree Examination
Environmental Science
(Remote Sensing Applications)
Paper : HCT - 4.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

Answer All sections.

Section - A

Write brief note on all **ten** of the following :

(10×1=10)

1. Sensor
2. Frequency
3. Lens
4. Principle point
5. Space segment
6. Map
7. Side lap
8. Pixel
9. Smoothing
10. Land cover

Section - B

Write short notes on any **five** of the following :

(5×3=15)

11. Ground coverage
12. EMS
13. Scattering

14. Water shed
15. Thermal scanners
16. Reflection

Section - C

Write note any **five** of the following :

(5×7=35)

17. Components of remote sensing
18. Types of aerial cameras
19. Applications of aerial photos
20. Applications of remote sensing in mining and quarrying
21. Image visual interpretation keys
22. Supervised classification.

Section - D

Answer any **two** of the following :

(2×10=20)

23. Digital image enhancement techniques.
 24. Global Positioning System and its applications.
 25. Applications of remote sensing in water resources.
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