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PGIIIS-1594 B-17
M.Sc. IIIrd Semester Degree Examination
ENVIRONMENTAL SCIENCE
(Environmental Engineering and Technology)
Paper : HCT 3.1

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates :

Answer both sections section - A is compulsory and any four from the section - B.

Section -A

1. Write brief note on any **TEN** of the following. **(10×2=20)**

a) Water shed.

b) Coagulation.

c) Desalination.

d) Fluorosis.

e) Wet collectors.

f) Decibel.

g) Hazardous waste.

h) Sustainable development.

i) Demineralization.

j) Electrostatic precipitators.

k) Municipal waste.

l) Disinfection.

Section - B

2. Answer any **FOUR** of the following.

a) Write a note on advanced treatment of waste water. **(8)**

b) Write an account on significance of aeration in water treatment. **(7)**

3. Write short notes on :

a) Ground water recharge. (5)

b) Air pollution standards. (5)

c) Defluoridation treatment. (5)

4. a) Give an account of waste water disposal and reuse. (8)

b) Give a brief account of recent air pollution incident in Delhi. (7)

5. Write short notes on :

a) Solid waste management. (5)

b) Energy production from agricultural waste. (5)

c) Noise pollution. (5)

6. a) Give an account of water purification process in natural system. (8)

b) Write an account on scope of environmental engineering. (7)

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PGIIIS-1595 B-17

M.Sc. III Semester Degree Examination

ENVIRONMENTAL SCIENCE

(Environmental Law and Audit)

Paper : HCT 3.2

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates :

Answer both sections: section - A is compulsory and any four from the section - B.

SECTION-A

1. Write brief note on any **TEN** of the following. **(2×10=20)**

a) Prillimerney Survey.

b) Environmental policy.

c) CESS Act.

d) Hazardous waste.

e) Pre-Audit.

f) ISO-14,000 Series.

g) E-waste.

h) Energy Audit.

i) Waste minimization.

j) Public policy.

k) Non-government sectors.

l) Pollution prevention.

SECTION - B

Answer any **FOUR** of the following.

2. a) Give a details of Environmental Legislation in India. **(8)**

b) Explain the role of government sectors in Environmental auditing. **(7)**

3. Write short notes on :

a) Environmental policies. (5)

b) Environmental protection. (5)

c) Pollution control strategies. (5)

4. a) Explain the salient features of Biodiversity bill 2016. (8)

b) Give a details of Indian Wild life (protection) Act 1972. (7)

5. Write short notes on :

a) Municipal Waste (Management and Handling) rules, 2000. (5)

b) Coastal zone Regulations. (5)

c) Convention of Biodiversity. (5)

6. a) Discuss the concept and benefits of Environmental Audits for developmental projects. (8)

b) Give an account on safety Audit with a case study. (7)

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PGIIIS-1597 B-17
M.Sc. III Semester Degree Examination
ENVIRONMENTAL SCIENCE
(Water and Wastewater Management)
Paper : OET 3.1

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates :

Answer both sections Section - A is compulsory and any four from the section - B.

SECTION-A

1. Write brief note on any **TEN** of the following. **(10×2=20)**

a) Atmospheric water.

b) Recycle of waste water.

c) Deionization.

d) Algal bloom.

e) Biofilm.

f) MINAS.

g) Oxidation pond.

h) COD.

i) Components of rainwater harvest.

j) Diarrhea.

k) Biological disinfection.

l) Sources of river pollution.

SECTION - B

Answer any **FOUR** of the following.

2. a) Write in detail the characteristics and water budget. **(7)**

b) Give an account of distribution of freshwater. **(8)**

3. Write short notes on the following. (3×5=15)

a) Non-point source of water pollution.

b) Organic pollutants.

c) Sources of underground water pollution.

4. a) Discuss briefly the effect of water pollution on primary producers. (7)

b) Give an account of classification of water pollutants. (8)

5. Write a short note on the following: (3×5=15)

a) Trickling filter.

b) Tertiary treatment of waste water.

c) Marine water pollution.

6. a) Discuss briefly the treatment of drinking water by municipality. (7)

b) Explain in detail the policies and methods of protection and conservation of water. (8)

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PGIIIS-1596 B-17
M.Sc. III Semester Degree Examination
ENVIRONMENTAL SCIENCE
(Environmental Sampling & Statistics)
Paper : SCT 3.1

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates :

Answer both sections section - A is compulsory and any four from the section - B.

SECTION-A

1. Write brief note on any **TEN** of the following. **(10×2=20)**

a) Dust fall jar.

b) Centrifugal V/s centripetal force.

c) Sachi disk.

d) COD.

e) Site selection.

f) Separation of solid waste.

g) Primary data.

h) Histogram.

i) Variance.

j) Kartosis.

k) Chi-square test.

l) MANOVA.

SECTION - B

2. a) What is respirable dust? How do you sample and measure them. **(8)**

b) Explain the instrumental technique involved in gaseous pollutant measurement. **(7)**

3. Write short notes on :

a) Preservation of water samples. (5)

b) BOD measurement method. (5)

c) Sample preparation for pesticide estimation. (5)

4. a) Give an account on various methods involved in collection and handling of municipal solid waste. (8)

b) Explain the soil sampling technique involved to estimate nutrients. (7)

5. Write short notes on :

a) Limitation of statistics. (5)

b) Statistical method v/s experimental method. (5)

c) Measure of spread. (5)

6. a) Explain the applications of 't' test for interpretation of environmental data. (8)

b) What are the application of multiple regression. (7)

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