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Reg. No. :

D 2218

Q.P. Code : [D 07 PES 01]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

First Year

Environmental Science

WATER POLLUTION AND MANAGEMENT

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Write an account on the effects of water pollution on aquatic systems.
2. Briefly discuss the importance of various water quality parameters, estimation methods and their permissible limits.
3. What are methods involved in the treatment of water for potable purposes?

4. Give a detailed methodology in sewage water treatment for heavy metal removal.
 5. Discuss – water harvesting and recycling.
 6. Elucidate the various Acts and Rules put forth for prevention and control of water pollution.
 7. Describe in detail on :
 - (a) Iron exchange
 - (b) Reverse osmosis
 - (c) Electro dialysis.
 8. Discuss some case studies in Tamil Nadu for water planning and management.
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Reg. No. :

D 2219

Q.P. Code : [D 07 PES 02]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

First Year

Environmental Science

AIR POLLUTION AND MANAGEMENT

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Write an account on Atmospheric dispersion.
2. What are the global effects of Air pollution? Explain.
3. Describe the structure and the elemental properties of atmosphere.
4. List out the various air quality standards and the measurement of air pollutants.
5. Give an account on control of gaseous pollutants?

6. Radiation emission - Explain.
 7. What are the effects of Noise pollution? How can sound be measured and assessed?
 8. Air Pollution and Control of Pollution Act-Discuss.
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Reg. No. :

D 2220

Q.P. Code : [D 07 PES 03]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

First Year

Environmental Science

**SOIL POLLUTION AND SOLID WASTE
MANAGEMENT**

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Describe in detail the nature of water and air in the soil.
2. Enumerate the various types of soil pollutants and their effects on soil.
3. Write an account on hazardous waste component and management.
4. Explain the treatment process for unsegregated waste.

5. Municipal, solid waste – discuss its characteristics and processing of waste.
 6. Illustrate landfills and what are basic criteria required to propose a landfill.
 7. Give a detailed answer on Management of Biomedical Waste.
 8. Discuss – “The Manufacture, storage and import of hazardous chemicals rules 1989”.
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Reg. No. :

D 2221

Q.P. Code : [D 07 PES 04]

(For the candidates admitted from 2007 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

First Year

Environmental Science

INSTRUMENTAL METHODS OF ANALYSIS

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. Give the basic principles, instrumentation and application of High Performance Liquid Chromatography.
2. Describe the interaction of radiation with different types of molecular energy.
3. Write an account on the principles and instrumentation of NMR.

4. Explain the principles, instrumentation and environmental applications of Atomic absorption spectroscopy
 5. Write a detailed note on the following
 - (a) Nephelometry
 - (b) Conductometry
 - (c) Turbidometry
 6. What is the instrumentation and application of Mass spectrophotometer?
 7. Give the importance of applying statistics to environmental data.
 8. Explain- ANOVA and "t" test.
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