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Total No. of Questions : 6]

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EG-289

**B.E. III Semester (CGPA) Civil Engg.
Examination 2018**

ENVIRONMENTAL ENGINEERING-I

Paper - CE -301

Time Allowed : Three Hours]

[Maximum Marks : 60

Note : Attempt all questions. Each question carry equal marks.

Q.1. Choose the correct answer. $5 \times 2 = 10$

- i) Minimata disease was caused by
- (a) Mercury Poisoning
 - (b) Uranium poisoning
 - (c) Cobalt poisoning
 - (d) None of the above

(2)

- ii) Particulate matter present in the exhaust gases of thermal power plant can be collected by
- Bag filter
 - ESP
 - Cyclone separator
 - All of the above
- iii) According to WHO the highest noise which a human can hear with discomfort is
- 40 dB
 - 60 dB
 - 80 dB
 - 100 dB
- iv) Uranium is the
- Hydro fuel
 - Fossil fuel
 - Nuclear fuel
 - Petroleum
- v) Maintenance of harmonious relationship between human being and environment is the objective of
- EIA
 - EDA
 - PLCA
 - DFE

(3)

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Q.2. a) Write an informative details on flow of energy in the ecosystem. What is the role of producers, consumers and reducers in food web. 6

b) Describe the segment of environment and their role in the ecosystem. 4

OR

c) write short notes on 6

i) Genetic Biodiversity

ii) EL-Nino phenomenon

d) What are the geochemical cycles? Depict Nitrogen cycle and discuss its salient features. 4

Q.3. a) What is the concept of aerobic treatment process of water? What are the demerits of oxidation pond. 6

b) Define 'TOC' Total Organic Carbon. Why non-biodegradable organics are considered to be more harmful than biodegradables? 4

OR

(4)

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- c) What do you understand by open and closed aqueous system? What are the characteristics of lentic system. 7
- d) Justify the need of primary treatment of waste water. What is the significance of neutralization in primary treatment. 3
- Q.4. a) Define air pollution what are the various photochemical reactions which ultimately caused photochemical smog in the atmosphere. 7
- b) How bag filters help in the cleaning of air particulates? Depict complete process. 3
- OR
- c) What do you understand by temperature inversion? Discuss relationship of DALR i.e. Dry Adiabatic Lapse rate and ELR environmental lapse rate. 8
- d) Differentiate between primary and secondary pollutants? How NO_x and SO_x leads to acid rains. 2

(5)

- Q.5. a) What are the biological solid waste? How hospital waste can be disposed of safely? 5
b) Discuss the role of acoustic absorptive silencers to control traffic pollution. 5

OR

- c) Write short notes on 6
i) Radioactive Pollution and
ii) Soil pollution
d) On the basis of merits and demerits comments on land filling solid waste disposal method. 4

- Q.6. a) How EA i.e. Environmental Audit can help in sustainable development of the society. 5
b) What do you know about-IEE? Explain with flow chart. 5

OR

- c) Justify Pollution control laws are must towards conservation of environment. 5

(6)

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d) Write short informative notes on 5

- i) IEE i.e. Initial Environmental Examination
- ii) EIA i.e. Environment Impact Assessment

