

VPM's ADVANCED STUDY CENTRE

PGDAAC

Marks: 100

Dt.: 28.06.2008

Re-examination 2007-08

PAPER III

ENVIRONMENT SCIENCE (SECTION I)

- Q.1) ANSWER IN ONE-TWO SENTENCES** 10
- a) What are Air Pollutants? Name them.
 - b) Name major regions of the atmosphere.
 - c) Define B.O.D, C.O.D.
 - d) Define soil Pollution.
 - e) Give manmade\artificial sources of air pollutants.
- Q.2) ANSWER ANY TWO OF THE FOLLOWING** 10
- a) What is soil ? Give importance of soil. How soil is formed?
 - b) What is GREEN HOUSE EFFECT? Give its impact on global climate.
 - c) Describe PARTICULATES &HYDROCARBONS as pollutants
- Q.3 Describe Primary, secondary and tertiary procedures of sewage \ effluent treatment.** 10
- Q.4) Write laboratory method of B.O.D. and C.O.D. in detail.** 10
- Q.5) Write Notes on ANY TWO of the following.** 10
- a) Photochemical Smog.
 - b) Acid Rain.
 - c) Heavy metals, Chlorides, Sulphates, Nitrates.

SAFETY (SECTION II)

- Q.1) a) Explain how the physical and physiological factors influence safety performance?** 05
b) What are legislative & statutory requirements pertaining to safety. List two each. 05
- Q.2) Explain with examples engineering techniques used for accident prevention considering the hazard management.** 10
- Q.3) Write short notes on any 3:** 10
- a) Manual / mechanical material handling
 - b) Electrostatic hazards
 - c) Energies used in industries
 - d) Chemical compatibility
 - e) Standard operating procedure
 - f) Prevention and protection
- Q.4) Define the term Process Safety and elaborate the components considered for process safety.** 10
- OR**
- Q.4) Explain any 2:** 10
- a) Risk analysis
 - b) Chemical Safety
 - c) Material handling
 - d) Transportation of hazardous chemicals
- Q.5) a) What is emergency?** 10
b) How the emergency management is formed and explain their role and responsibilities.
c) List the type of hazards and emergencies in any chemical plant.

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