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Total Number of pages : 01

B.Tech
PES1C001

1st Semester Back Examination 2018-2019

ENVIRONMENTAL STUDIES & HEALTH CARE ENGINEERING

BRANCH : AEIE, AERO, AUTO, BIOMED, BIOTECH, CHEM, CIVIL, CSE, ECE,
EEE, EIE, ELECTRICAL, ENV, ETC, FAT, IEE, IT, MANUFAC, MANUTECH,
MECH, METTA, MINERAL, MINING, MME, PE, PLASTIC, PT, TEXTILE

Time : 3 Hour

MAX Marks : 100

Q.CODE : E852

Answer Question No.1 (Part-1) which is compulsory, any EIGHT from Part-II and any TWO from Part-III.

The figures in the right hand margin indicate marks.

PART-I

Q1 Short Answer Type Questions (Answer All-10) (2 × 10)

- a) What are Abiotic factors and Biotic factors existing in ecosystem?
- b) What is the role of Nitrogen fixation in Nitrogen cycle?
- c) Define Gross primary production and Net primary production.
- d) Define COD and BOD.
- e) List out the secondary air pollutants.
- f) What is wet air oxidation?
- g) What are the effects of chemical hazards on environment?
- h) What are the constituents of emission from petroleum refinery?
- i) What are the personal protective equipments for respiration system?
- j) What is heat burn?

PART-II

Q2 Focused Short answer Type Question (Answer any Eight out of Twelve) (6 × 8)

- a) Briefly discuss the general structure of an EIA report.
- b) What are the Indian environmental laws made for protection of environment?
- c) What are the different organic compounds present in soil? What is the function of each of these compounds?
- d) BOD of an effluent sample incubated for one day at 30°C was found to be 100 mg/L. What would be the 5 day BOD at 20°C? $K=0.12$ at 20°C
- e) What is the reason of naming organic matters as oxygen demanding wastes? Explain the procedures to measure it.
- f) Explain the Gaussian distribution method which is used to predict concentration of pollutants in air.
- g) Discuss briefly the properties of Municipal Solid Waste.
- h) What do you understand by occupational safety and occupational health?
- i) Write about hazard control measures in steel industry.
- j) Explain the fire extinguishing techniques.
- k) How does information technology affect/effect human health?
- l) What is malaria? Write its prevention.

PART-III

Q3 Long Answer Type Questions (Answer any Two out of Four)

Draw the tolerance curve. Discuss each segment of it. **(16)**

Q4 What is global warming? What are the environmental effect of global warming? Share your ideas to control the global warming. **(16)**

Q5 Define Safety Performance Index. What are the types and causes of accident? **(16)**

Q6 Discuss the causes, prevention and control measures of hepatitis. **(16)**