

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2024

Level : B.Sc.
Year : III
Time : 2 hrs. 30mins.

Course : ESEE 211
Semester : I
F. M. : 55

11 AUG 2024

SECTION "B"
[5 Q. × 7 = 35 marks]

Attempt ANY FIVE questions.

1. Are environmental problems in Nepal different from those in the rest of the World? Briefly highlight the major environmental problems of Nepal.
2. The temperature and pressure of atmospheric air is 25°C and 1 atm respectively. If 1 mol of carbon monoxide is present per 300 mol of atmospheric air, calculate the concentration of carbon monoxide considering the molecular weight of CO as 28 and standard values for other parameters.
3. How toxic metals effect biological organisms? Explain with examples.
4. Write your view on the solid waste management system of Nepalese municipalities.
5. Show the relationship of seasons with the water temperature, dissolve oxygen and depth of a lake.
6. Explain the roles of environmentalist in addressing environmental problems.

SECTION "C"
[20 marks]

Attempt ALL questions.

7. What is the process of ozone formation and destruction? Explain with equations [4]
8. Make a table to explain the relationship of atmospheric layers, distance in km, temperature range in °C and major dominant gases components. [5]
9. Calculate the volumes of 1 mol of gas at 1 atm and 10°C. Again calculate the volume of 1 mol of gas at 1 atm and 25°C. What is the significance of temperature in air pollution? [5]

OR

Find the bulk density of soil measured 140 g (including 10% soil moisture) and sampled with a soil core of internal radius 2 cm and height 4 cm.

10. Write short notes on (*ANY TWO*): [2 Q. × 3 = 6 marks]
 - a. Electronic waste
 - b. Climate change
 - c. Phytoremediation

