

CVM UNIVERSITY

M.Sc. (Environmental Science & Technology) Semester – I (Examination – 2021)

Wednesday, 24 February - 2021

2.00 PM to 4.00 PM

101350102: Air Pollution and Climate Change

Total Marks: 60

Q.1. (a) Multiple Choice Questions

[08]

1. Biological hazards are of organic origin or conveyed by _____ vectors.
(a) Biological (b) Chemical (c) Physical (d) None
2. Climate is the average of _____ years' weather observations.
(a) 20 (b) 25 (c) 30 (d) None
3. *Dyspnea* is difficulty in _____.
(a) Inhalation (b) Exhalation (c) a & b (d) None
4. Excess inhalation of _____ suppresses immune system.
(a) SO_x (b) PM (c) NO_x (d) None
5. Geological or geophysical hazards originate from internal _____ processes.
(a) Earth (b) Moon (c) Solar (d) None
6. Lower atmosphere is also known as _____.
(a) Exosphere (b) Troposphere (c) Stratosphere (d) None
7. Troposphere constitutes _____ % of mass of atmosphere.
(a) 60 (b) 70 (c) 80 (d) None
8. *Xeroderma* affects _____.
(a) Nose (b) Throat (c) Eye (d) None

Q.1. (b) True or False

[08]

1. Air constitutes 80% of man's daily intake by weight.
2. Carbon dioxide in atmosphere has risen by about 30% due to industrial revolution.
3. CH₄ is a neutral part of carbon cycle, generated by Methanotrophs (Methanogens).
4. Ozone is abundantly formed in stratosphere by photochemical reactions.

Fill in the Blanks

5. Atmosphere is an envelope of gases upto _____ km from the earth. (200, 300)
6. N₂O is also emitted from _____. (Wetlands, Forests)
7. Rest of the gases constitute _____ % of average composition of air. (0.96, 0.98)
8. The first definition of air pollution was given by H. Perkins in _____. (1974, 1947)

Q.2. Attempt Any Six

[12]

1. Aeroallergens
2. Atmospheric layers
3. Bhopal Gas Tragedy
4. Define the terms: Hazards, Exposure, Vulnerability, Coping capacity, Disaster risk
5. Draw pie-charts: Outdoor air pollution, Sources of PCS, Annual GHG emissions by sector
6. Enlist and Explain: Abiotic and biotic factors affecting the climate
7. Expand and explain: PAP, OAP, CAP
8. General effects of air pollution on plants, animals and materials

Q.3. Describe in detail the natural and man-made sources of air pollution highlighting their effects. [08]

OR

Write a detailed note on classification and effects of air pollutants and their effects.

Q.4. Briefly discuss the effects of NO_x, SO_x, HC and PM on plants, humans and materials. [08]

OR

Explain the formation of PCS and acid deposition in detail. Add a note on general effects and specific effects of acid rain on forest decline.

Q.5. Define climate change, green house effect and global warming. Discuss their mechanisms, advantages and disadvantages in detail. [08]

OR

Write a detailed note on types of ozone and its depletion in stratosphere. Add a note on adverse effects of ozone, and steps or solutions for its recovery.

Q.6. Describe in detail about hazards, exposure and risk in your own words. [08]

OR

Write a detailed note on vulnerability, coping capacity and disaster management in your own words.