



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program : Seventh Semester – 2020

Paper: Air Pollution its Impacts and Control

Course Code: BOT-401

Part – I (Compulsory)

Time: 15Min. Marks: 10

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Signature of Supdt.:

Q.1. Encircle the right answer cutting and overwriting is not allowed. (10x1=10)

- (i) Mark out the gas involved in the production of photochemical smog in the presence of sunlight
(a) NO₂ (b) NO (c) N₂O (d) N₂O₅
- (ii) Much of natural Ozone is present in
(a) Troposphere (b) Mesosphere (c) Thermosphere (d) None of a, b or c
- (iii) Contribution of automobile combustion in air pollution is
(a) 10-20% (b) 40-50% (c) 50-60% (d) 5-10%
- (iv) The first Nuclear Test in Pakistan was carried out on
(a) 18-May 1998 (b) 28-May 1998 (c) 8-May 1998 (d) 28-May 2001
- (v) Carbon monoxide is a pollutant because in human body it
(a) reacts with O₂ (b) inhibits glycolysis
(c) inactivates nervous system (d) reacts with hemoglobin
- (vi) With increasing altitude, temperature of Troposphere continues to
(a) Decrease (b) Increase (c) Remain constant (d) Fluctuate
- (vii) Bronchitis and Emphysema are caused by
(a) Particulate fluorides (b) Lead (c) Dust Pollution (d) All a, b and c
- (viii) Percentage proportion of UV radiation from sun filtered by natural ozone is
(a) 87% (b) 90% (c) 93% (d) 95%
- (ix) Effects of chronic radiation exposures are
(a) Genetic (b) Somatic (c) Reproductive (d) Both a and c
- (x) Radiation that can travel only a few centimeters in the air is
(a) Beta Particles (b) Alpha Particles (c) Gamma Rays (d) Corpuscular radiation



ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2. Give short answers of the following: (5x4=20)

- (i) Comparative sensitivity of organisms to radiation
- (ii) Sources and Impacts of Lead pollution
- (iii) Impacts of Air Pollution on Inert materials
- (iv) Fall-out problem and fate of radionuclides
- (v) Urban Pollution Rankings in Pakistan

Answers the following questions. (3x10=30)

- Q 3. Define Aerosols. Give a detailed account of their sources, atmospheric concentration, particle size and chemical composition. What are their physical and physiological impacts? 10**
- Q 4. What is Ozone Hole? Give an account of stratospheric ozone production-depletion balance. 10**
What are impacts of stratospheric ozone depletion?
- Q 5. (a) Critically discuss various International Air Quality Programmes. 6**
(b) Describe Catalyst System for emission control from motor vehicles. 4