

Step Academy official

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STUDENT NAME	
PAPER CODE	22257
TIME ALLOWED	40
Paper Date	26-02-2026



CLASS	New 1st Year (FSC/ICS)
SUBJECT	Chemistry
TOTAL MARKS	25
Paper Type	

Q1. Choose the correct answer.

5X1=5

1. Which gas causes yellow color in photochemical smog?

- (A) CO (B) SO₃ (C) NO₂ (D) SO₂

2. Which particulate matter size is considered the most harmful to human health?

- (A) PM 10.0 (B) PM 5.0 (C) PM 2.5 (D) PM 1.0

3. What are the primary chemical processes that removes carbon dioxide from the atmosphere?

- (A) Combustion (B) Photosynthesis (C) Respiration (D) Volcanic activity

4. An AQI value between 51 and 100 typically indicates which level of air quality?

- (A) Good (B) Moderate (C) Unhealthy (D) Fatal

5. In the presence of sunlight and nitrogen oxides (NO_x), VOC_s can contribute to the formation of:

- (A) Acid rain (B) Ozone depletion (C) Photochemical smog (D) Greenhouse gases

Q2. Write short answers of the following questions.

5X2=10

1 . How does the thermosphere protect Earth from solar radiation?

2 . How do volcanoes contribute to air pollution?

3 . What are Chlorofluorocarbons (CFC_s) and where are they commonly found?

4 . How does acid rain affect plants? What are the effects of acid rain on buildings?

5 . Identify and briefly explain three major natural sources of air pollutants.

Q3. Write detailed answers of the following questions.

2X5=10

1 . How the fossil fuel burning causes acid rain? Discuss in detail with chemical reactions.

2 . What is meant by air quality AQI? Describe the factors affecting the air quality.