

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

11. a) Explain plume behavior under unstable and stable conditions with diagrams.
OR
b) Explain the determination of mixing height of the atmosphere.
12. a) Discuss the effects of PM₁₀ on human health.
OR
b) Explain the relationship between green house effect and global warming.
13. a) Discuss the salient features of National Ambient Air Quality Standards 2009.
OR
b) Explain the methods of sampling and measurement of PM₁₀ concentration by gravimetry in the ambient atmosphere.
14. a) Design a bag house using filter bags with 0.25 m in diameter with 7.0 m length. The flow rate of the particulate laden gas is 10 m³/s; the filtering velocity of fabric has been determined to be 2.2 m / min. Determine the number of bags required for continuously cleaning operation.
OR
b) Design with a neat diagram, a cyclone separator for particulate control with standard dimensions.
15. a) Discuss the advantages of Bharat VI emission standards.
OR
b) Categorize the types of hybrid vehicles and explain their advantages.

Z-Z-Z

END