

M. Sc. Semester-II Examination 2017
Environmental Science
Course: MEC-22
(Air Pollution)

Time : Three Hours

Full Marks : 40

Questions are of value as indicated in the margin

Answer Question No.1 and **any four** from the rest

1. Write short notes on **any four** of the following : 2×4=8
 - (a) Van Allen Belt
 - (b) Criteria air pollutants
 - (c) Classical smog
 - (d) Sound level meter
 - (e) Exceedence factor
 - (f) Equivalent sound level

 2. (a) Discuss the types of particulate air pollutants you have studied?
(b) How do particulate air pollutants affect human health?
(c) Differentiate between rainout and wash out. 4+3+1=8

 3. (a) Illustrate different unstable and reactive chemical species found in the atmosphere.
(b) Differentiate between fluorescence and phosphorescence.
(c) What is photosensitized reaction? 4+2.5+1.5=8

 4. (a) How can you control air pollutants from mobile sources?
(b) Discuss different pollution control devices for particulate air pollution. 4+4=8

 5. (a) Discuss two different oxidants produced by photochemical reaction at the ground level. Explain the conditions/factors responsible for their production and accumulation in the atmosphere.
(b) Mention the effects of oxidants on plant health. (2+2)+2+2=8

 6. (a) What are acidic precipitations?
(b) Discuss the effects of acid rain on vegetation and soils. 2+(3+3)=8

 7. (a) What is National Ambient Air Quality Monitoring programme?
(b) Enumerate the new air quality standards and how does it differ from previous standards? 2+(4+2)=8
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