
Unit Wise VTU Question papers**UNIT 1**

1. Define air pollution and discuss the different sources of air pollutants in detail.
(DEC. 2011, JUNE 2012 DEC 2013/JAN 2014, June/ July 2013)
2. Briefly explain primary and secondary air pollutants with example
(DEC. 2011, JUNE 2012 ,DEC 2013/JAN 2014, July 2014)
3. Explain photo chemical smog and coal - induced smog.
(DEC. 2011, JUNE / JULY 13)

UNIT 2

1. List the recorded major air pollution episodes chronologically.
(JUNE / JULY 12)
2. Explain the effect of air pollution on human beings.
(DEC 11, DEC 2013/JAN 14, JUNE / JULY 12)
3. Write briefly the effect of air pollution on monuments in India. (DEC 12/JAN 13)
4. Explain the effects of air pollution on materials and plants.
(DEC. 2011, DEC 2013/JAN 2014, JUNE / JULY 12)
5. Explain briefly on air pollution episodes of London smog and Bhopal gas tragedy.
(DEC. 2011, DEC 2013/JAN 2014 ,JUNE / JULY 12, JUNE / JULY 13 1 JUNE / JULY 14)

UNIT 3

1. List the meteorological parameters that influence the dispersion of pollutants in atmosphere.
(DEC. 2011, DEC 12/JAN 13)
2. Write a note on Atmospheric stability and temperature inversions.
(JUNE/JULY 13, DEC 2013/JAN 2014, JUNE / JULY 14)
3. What is a wind rose diagram? Explain with a neat sketch.
(DEC. 12 / JAN. 13 JUNE / JULY 14,)
4. Explain different environmental lapse rates and their effects on dispersion of air pollutants.
(JUNE/JULY 13, DEC 2013/JAN 2014, JUNE / JULY 14)

5. Sketch and explain different kinds of plumes depending upon different environmental conditions (any four). (DEC. 2011, JUNE / JULY14, DEC 2013/JAN 2014)

UNIT 4

1. List the methods of sampling suspended particulate matter and explain anyone in detail with sketch. (DEC. 12 / JAN. 13)
2. Define the term air sampling and explain the basic considerations to be made during air sampling. (DEC. 11/ JAN. 12)
3. What is Inversion? Explain different types of inversions. (JUNE / JULY14)
4. Explain the factors influencing the industrial plant location and planning. (DEC. 2011, DEC 2013/JAN 2014)
5. Define noise. Discuss in brief the various sources of noise. Write a brief note on noise abatement and control. (DEC 2013/JAN 2014)

UNIT 5

1. Explain with sketches the following air pollution control equipment:
 - i. Spray towers
 - ii. Cyclones
 - iii. Pipe-type precipitator(JUNE / JULY 13,DEC/JAN 12, DEC 2013/JAN 2014, JUNE / JULY 14)
2. Explain the working of high volume air sampler, with a sketch. (DEC/ JAN. 12,DEC 2013/JAN 2014)
3. Explain the principle and working of a cyclone separator, with a sketch. (DEC 2013/JAN 2014, JUNE / JULY 14)
4. With a neat sketch, describe the methods of gaseous sampling by sampling train. (DEC. 2011, DEC 2013/JAN 2014)
5. What are the advantages and disadvantages of electrostatic precipitators? (DEC. 2011, DEC/JAN 12,JUNE / JULY 14)
- 6.Determine the effective height of stack from the following data. (JUNE/JULY 2014)
 - i) Physical height of stack = 180 m

- ii) Inside dia of stack = 0.95 m
- iii) Wind velocity = 2.75 m/sec
- iv) Air temperature = 20 °C
- v) Barometric pressure = 1000 mb
- vi) Stack gas velocity = 11.12 m/sec
- vii) Stack gas temperature = 160°C

UNIT 6

1. What are the factors to be considered while selecting a site for industrial plant location? Explain. (DEC. 12 / JAN. 13)
2. Explain air pollution due to automobiles. (DEC. 2011, JUNE / JULY 14)
3. Discuss the phenomenon of acid rain and its effect. (JUNE / JULY 13, JUNE / JULY14, DEC 2013/JAN 2014)
4. With a sketch, explain the principle and operation of an electrostatic precipitator. (DEC 2013/JAN 2014, JUNE / JULY 14)
5. Explain with a neat sketch, the principle and construction of fabric filter. Give applications. (DEC. 2011, DEC 2013/JAN 2014, DEC 2013/JAN 2014, JUNE / JULY 14)

UNIT 7

1. Explain the causes and effects of ozone layer depletion in stratosphere. (DEC 2013/JAN 2014)
2. Briefly discuss the different control measures adopted to check the air pollutants emitted by automobiles. (DEC. 2011, JUNE / JULY 14)
3. Explain the causes and effects of acid rain. (DEC. 2011, DEC 2013/JAN 2014)
4. Explain Global warming. (DEC. 2011, DEC 2013/JAN 2014)

UNIT 8

1. Define air quality standards.
(JAN 11,DEC 2013/JAN 2014, DEC 2013/JAN 2014, JUNE / JULY 14)
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2. What are the emission standards? Distinguish between ambient air quality standard and emission standard. (JUNE / JULY 11, (DEC 2013/JAN 2014, JUNE / JULY 14)