

<b>Paper code: MME-309</b>	<b>Roll No.</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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**M.Tech.**  
**THIRD SEMESTER EXAMINATION 2016-2017**  
**ENVIRONMENTAL POLLUTION & ITS CONTROL**

[Time: 3hrs.]  
[Max.Marks:100]

Note: Attempt all questions. All questions carry equal marks.

1. Attempt any *three* parts of the following:-  
{(20/3)x3=20}

- (a) State thermal pollution. Discuss the measures that can be useful in controlling thermal pollution.
- (b) "Sustainable development is a moderate position between the extremes of no growth versus unlimited growth ". Justify
- (c) What is photochemical smog? What are its affect?
- (d) "Greenhouse effect at its natural level is very essential for life to exist on the marvelous planet -Earth". Justify the statement.

2. Attempt any *three* parts of the following:-  
{(20/3)x3=20}

- (a) "Just as meteorological or weather conditions affect the severity of air pollution; atmosphere contamination (or air pollution) may in turn affect the meteorological conditions." Justify the statement
- (b) Define temperature Inversion. What are the causes and effects of inversion of atmosphere?
- (c) Write short notes on: (i) London smog disaster (ii) Bhopal Disaster
- (d) Explain the relationship between adiabatic lapse rate of a rising plume of stack gas and the ambient lapse rate.

3. Attempt any *two* parts of the following:-  
(10x2=20)

- (a) "Global Warming, destruction of ozone layer and acid rain are global problems that cannot be dealt with by the mostly local regulations used for other air pollutants". Justify the statement.
- (b) Describe the salient features of the environment (protection) Act 1986.
- (c) Discuss the salient features of the wildlife protection Act , 1972.

4. Attempt any *two* parts of the following:-

**(10x2=20)**

- (a) Sketch and discuss the various kinds of plums in relation to the adiabatic lapse rate.
- (b) "Oxygen plays a key role in the troposphere; while ozone in stratosphere. Comment.
- (c) Describe the effect of air pollution on plants and animals and discuss the role NO<sub>x</sub> & CFC<sub>x</sub> in the depletion of Ozone layer.

5. Attempt any *two* parts of the following:-

**(10x2=20)**

- (a) Enumerate the various control devices for particulate contaminants and explain each with merit and demerits.
- (b) What are the major pollutants from the automobile. How will you control the NO<sub>x</sub> emissions coming out the vehicle.
- (c) Explain in details the Following atmospheric conditions :(i) super -adiabatic (ii) sub -adiabatic (iii) Neutral (iv) Isothermal (v) The Ganga pollution or pollination.