

# ONE TIME EXIT SCHEME

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10AU74

## Seventh Semester B.E. Degree Examination, April 2018 Automotive Air Pollution Control

Time: 3 hrs.

Max. Marks:100

**Note:** Answer FIVE full questions, selecting at least TWO questions from each part.

### PART – A

- 1 a. Discuss the influence of actual traffic conditions and vehicle maintenance on the pollution. (10 Marks)  
b. Briefly explain the driving cycle. Explain the ECE used for the regulatory test. (10 Marks)
- 2 a. Describe the mechanism of formation of oxides of Nitrogen in CI engine. (10 Marks)  
b. Explain the various forces of UBHC. (10 Marks)
- 3 a. Explain the terms :  
i) Soot formation  
ii) Pollution control measures in SI engine. (10 Marks)  
b. Briefly explain the Exhaust Gas Recirculation (EGR). (10 Marks)
- 4 a. Discuss any five properties of petrol which influence the exhaust emission. (10 Marks)  
b. Discuss the effect of following on emission.  
i) Alternative fuels  
ii) Lubricants. (10 Marks)

### PART – B

- 5 a. With neat sketch, explain 3 way catalytic converter. (10 Marks)  
b. Discuss various technique of NO<sub>x</sub> treatment in diesel engine. (10 Marks)
- 6 a. Explain the effect of air pollution on :  
i) Animals  
ii) Plants. (10 Marks)  
b. Explain Global warming and its effects. (10 Marks)
- 7 a. List out the different gas sampling methods and explain any two in detail. (10 Marks)  
b. Explain about the filter types of smokemeter. (10 Marks)
- 8 a. With neat sketch, explain gas chromatograph. (10 Marks)  
b. Explain the construction and working of a orsat gas Analyzer, with neat sketch. (10 Marks)

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