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Total Number of Page : 01

B.Tech.
PCAT4304

**6th Semester Back Examination 2017-18
AUTOMOTIVE POLLUTION AND CONTROL**

BRANCH : AUTO

Time : 3 Hours

Max Marks : 70

Q.CODE : C330

**Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.**

- Q1. Answer the following questions : (2 x 10)**
- a) What is the use of Gas Chromatograph?
 - b) Which are hazardous vehicle pollutants?
 - c) How smog formation takes place?
 - d) Name CI engine pollutants.
 - e) How octane number affects SI engine emission?
 - f) What you mean by ambient air quality?
 - g) What contribution of vehicular pollution in global warming?
 - h) How particulate matter forms?
 - i) What are thermal reactors?
 - j) Why catalytic converters are used?
- Q2. a) Write about pollution from SI engines. (5)**
b) Explain Evaporative emission and how can it be control. (5)
- Q3. a) Write about vehicle emission standards followed in India. (5)**
b) Explain noise pollution from automobiles and its measurement. (5)
- Q4. a) Explain optimum selection of operating variables for control of emissions in SI engine. (5)**
b) Sketch and explain the construction and working of a catalytic converter. (5)
- Q5. a) Explain working principle of fuel cells with neat sketch. (5)**
b) Describe with neat sketch the working principle of smoke meters. (5)
- Q6. a) Explain with neat sketch working principle of EGR. (5)**
b) Write about new fuels used to reduce pollution. (5)
- Q7. Write about pollutant formation in CI engines and effects of design and operating variables on CI engine emissions. (10)**
- Q8. Write short answer on any TWO : (5 x 2)**
- a) Chassis dynamometers
 - b) Two stroke engine pollution
 - c) EURO IV
 - d) Fuel modifications