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Question Paper Code : 11111

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Seventh Semester

Automobile Engineering

080190030 – AUTOMOTIVE POLLUTION AND CONTROL

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is global warming?
2. State the need of air pollution control.
3. What are the main pollutants emitted by petrol engine?
4. How co emission could be reduced in si engines?
5. What is the cause of diesel smoke?
6. How can the smoke intensity be measured?
7. Mention any four types of fuel cells.
8. What is the necessity of treating the exhaust gas?
9. List the various types of smoke meters.
10. What is chemiluminescent analyzer?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss the effects of emissions on human health.

Or

- (b) What are greenhouse gases? and explain briefly.

12. (a) Explain with sketches the formation mechanism of HC and CO in a SI engine.

Or

- (b) What do you mean by 'evaporation loss' and 'crankcase blowby'? Discuss its effect on air pollution.

13. (a) Define smoke and discuss different factors which affect smoke formation in C.I Engines.

Or

- (b) What is diesel odour? Explain the effect of different factors on the formation of odour In C.I engines.

14. (a) Explain briefly the following :

(i) Three-way catalytic converter (8)

(ii) Noble metal catalytic converter. (8)

Or

- (b) Exhaust gas recirculation reduces NO_x emission. Explain.

15. (a) Briefly explain the various driving cycles.

Or

- (b) Explain the construction and working principle of chasis dynamometer.