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Roll No.....

FIFTH SEMESTER

B. Tech.

SUPPLEMENTARY EXAMINATION

February- 2018

AE-307 COMBUSTION GENERATED POLLUTION

Time: 03 Hours

Max. Marks: 40

Note: All questions are compulsory.
Attempt any five question
Assume suitable missing data, if any.

1. What is fuel? Discuss different type of alternative fuels which affect global warming. List different type of emissions in diesel engine and discuss it in short. [8]
2. Explain why the constant volume combustion gives a higher indicated fuel conversion efficiency than constant pressure combustion for same compression ratio. [8]
3. List the commonly used alternative fuels, What are the performance parameters of the engine when use alternative fuel and discuss it in detail? [8]
4. What is biodiesel? Discuss the merits and demerits of biodiesel used in engine. [8]
5. What are the function of catalytic convertor? List the different performance parameters of the engine, and discuss it in detail. [8]

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6. Explain the working principle of Stratified charged engines and non-dispersive infrared analyser. [8]
7. Explain in detail the formation of NO_x in both S.I. engine sketch the variation of NO_x concentration with equivalence ratio and explain the reason for the same. [8]
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