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**B.Tech. MECHANICAL ENGINEERING
(BTMEVI)**

Term-End Examination

June, 2013

BIMEE-023 : COMBUSTION ENGINEERING

Time : 3 hours

Maximum Marks : 70

- Note :** (i) *All the questions are to be answered in English language only.*
(ii) *Attempt any five questions.*

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1. (a) Briefly explain the fuel gas analysis with the help of neat sketch. 7
 - (b) Explain different types of fuels used in IC engines. 7
 2. (a) What do you understand by Thermodynamics of combustion? Briefly explain kinetics of hydrocarbon combustion. 7
 - (b) Explain how smoke is formed in a diesel engine? 7
 3. (a) Explain in detail magneto ignition system with neat sketch. 7
 - (b) Compare Battery Ignition System with Electro Ignition System. 7

4. (a) Explain combustion process of SI Engine with neat sketch. 7
- (b) What is CI Engine ? Compare with SI Engine. 7
5. (a) Discuss different factors which affect smoke formation in CI Engine ? 7
- (b) Discuss the emission from SI Engine. What are the factors which affect SI Engine emissions ? 7
6. (a) Briefly explain valve timing diagram for Four Stroke Diesel Engine 7
- (b) What are the factors affecting knocking in SI engines and how to control it ? 7
7. (a) Briefly explain the working principle of carburettor with neat sketch. 7
- (b) Explain how CO emission is controlled in SI engines. 7
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