

24704

**B.Tech. 3rd Semester (Fire Tech. and Safety) F-Scheme  
Examination, December-2016  
HEAVY VEHICLE AUTOMOBILE ENGINEERING  
AND SAFETY  
Paper-FT-207-F**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Attempt any five questions in total. Question No. 1 is compulsory and must attempt one question from each section.*

1. (a) Define the function of the clutch in an Auto mobile.
- (b) What do you mean by Suspension System in a automobile.
- (c) Explain the rules and regulations of RTO.
- (d) Explain the different technique to control the pollution. 4×5=20

**Section-A**

2. What do you mean by Gear Box. Explain the Gear Box with their types. Function operation and maintenance of a Gear Box. 20
3. Explain the following term :
  - (a) Combustion in S.I. Engine.
  - (b) Combustion in C.I. Engine. 10,10

**Section-B**

4. Explain the construction, operation and maintenance of Hydraulic and Pneumatic air Brake System. 20

24704-P-2-Q-9(16)

[P.T.O.]

(2)

24704

5. Explain the differential with their working principle, construction detail and application with neat sketch. 20

**Section-C**

6. Write the short note on following :  
(a) Euro Norms  
(b) Air Pollution  
(c) Operation and maintenance of battery construction. 6,6,8
7. Explain the merit and demerit of Magnet Ignition, Battery Ignition and Electronic Ignition System. 20

**Section-D**

8. Explain the cooling system arrangement of a Four wheeler. 20
9. What do you mean by CMV rules regarding the safety devices for Drivers and Passengers. 20

24704