

Roll No.

24704

**B. Tech 3rd Semester (Fire Tech. &
Safety) Examination – December, 2017**

**HEAVY VEHICLE AUTOMOBILE ENGINEERING AND
SAFETY**

Paper : FT-207-F

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt five questions in all, selecting one question from each Section. Question No. 1 is compulsory.

1. Write short note on the following. 5 × 4 = 20
- Components fuel system
 - Pneumatic Brake Systems
 - Euro Norms of pollution control
 - Automobile safety devices

SECTION – A

2. How the heavy Engine Classification can be done based on construction. Discuss the various Engine Components. 20

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3. Discuss the various type of diesel fuel feed systems if possible with suitable sketch. 20

SECTION – B

4. Write the name of various types of brakes along with their Application. Explain the Construction and Operation of Hydraulic brake. 20
5. Explain the need of Suspension system along with its various types and discuss the construction and operation of hydraulic Shock absorber 20

SECTION – C

6. Compare the Battery Ignition with Electronic Ignition along its Merits and Demerits. 20
7. Explain the construction of Battery. Discuss how maintenance of battery is done. 20

SECTION – D

8. Discuss the Special Gadgets and accessories used for Fire Fighting vehicles. 20
9. Explain the various methods Laboratory testing of vehicles. 20