

OR

- 8 a. List the basic measurement of engine Testing. Explain briefly Fuel consumption measurement. (10 Marks)
- b. A gas engine working on the constant volume cycle gave the following results during a one – hour test run. Cylinder diameter 24cm ; Stroke 48cm, effective diameter of brake wheel 1.25m. Net load on brake 1236N ; average speed 226.7rpm, average explanation per minute, 77 ; mep of indicator cards 7.5bar, gas used 13m^3 at 15°C and 771mm of mercury pressure ; lower calorific value of gas 22000kJ/m^3 at N.T.P cooling water used 625Kg, inlet temperature 25°C . Outlet temperature 60°C . Determine :
- The mechanical efficiency
 - The gas consumption in m^3 at N.T.P per i.p hour
 - The indicated thermal efficiency
 - Draw up a heat balance for the engine on minute basis. (10 Marks)

Module-5

- 9 a. Discuss the five factors affecting combustion in dual fuel engines. (10 Marks)
- b. Explain modification required for fuel system of multifuel engine. (10 Marks)

OR

- 10 a. Discuss the working of dual fuel engine. State its advantages and disadvantages. (10 Marks)
- b. What are the modification required to use CNG as fuel in diesel engine? (10 Marks)
