ASSIGNMENT - 4

INTERNAL COMBUSTION ENGINE

Q-1

A four stroke petrol engine has a stoke volume of 6 litres. Its mean effective pressure is 550KN/m2 and r.p.m. is 750. Find the indicated power of the engine.

Q-2

A two cylinder four stoke engine has a bore of 120 mm and stoke is 1.25 times the bore. The engine runs at 1000 r.p.m. If the mean effective pressure is 600KN/m2 . Find the indicated power of the engine.

Q-3

A 6 cylinder 4 stroke I.C. engine is develop 89.5KW ip at 800r.p.m. The stroke to bore ratio is 1.25:1 Assuming mechanical efficiency of 80% and brake mean effective pressure of 5 bar, determine the diameter and stroke of engine.

Q-4

A petrol engine with stroke length of 200mm and diameter of 150 mm has a clearance volume of 7*105 mm3 . If the indicated thermal efficiency is 0.30, find the relative efficiency. If the effective pressure is 5 bar and engine runs at 1000 r.p.m. , find the ip of the engine. Take'Y = 1.4

Q-5

In a trial of a single cylinder oil engine , the following observations were made. Oil consumption = 10.2Kg/h Speed=1900 rpm Torque on the brake drum = 186N.m Question6. The following result refer to a test on I.C. engine Indicated the power = 42 KW Frictional power = 7 KW Engine speed = 1800 rpm Specific fuel consumption per b