

Assignment 3

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- Q1 Write down voltage, current and power relation in balanced delta connected load [03] Dec 12
- Q2 Three similar coils, connected in star, take a total power of 1.5 kW at a p.f. of 0.12 lagging from a three phase 440V, 50Hz supply. Calculate the resistance and inductance of each coil. [08] Dec 12
- Q3 In a balanced three phase circuit, power is measured by two wattmeters, the ratio of two wattmeter readings is 2:1. Determine the power factor of the system. [04] Dec 12
- Q4 Explain measurement of three phase power using two wattmeter method. [06] Dec 12
- Q5 Each phase of a delta connected load consists of a 50mH inductor in series with a parallel combination of 5Ω resistor and 5μF capacitor. The load is connected to a three phase 550V, 50Hz a.c. supply. Find
① phase current ② Line current ③ Power drawn
④ Power factor ⑤ Reactive power and KVA rating of the load. [08] May 13
- Q6 Draw the circuit for measurement of 3-phase power using two wattmeters and state its advantages over other methods of 3-phase power measurement. [04] May 13
- Q7 The input power of 3-phase motor was measured by two wattmeter method. The readings of two wattmeters are 5.2 kW and

