**Revision questions G006A – Version 3**

1. **The primary winding of a 440/55 V transformer has 400 turns. How many turns are there on the secondary winding?**

## Show all working out

1. **The 110 V output of a transformer is applied to a 22 ohm resistive circuit, *causing 0.22 A to flow in the primary winding. Calculate the primary voltage.***

## Show all working out

1. **The 68 V output of a transformer is applied to a 48 ohm resistive circuit, causing 0.2 A to flow in the primary winding. Calculate the primary voltage.**

## Show all working out

1. **240 V is applied to the primary winding of a transformer having 1100 turns. If the secondary has 900 turns, calculate the secondary voltage.**

***Show all working out***

1. **230 V is applied to the primary winding of a transformer having 1000 turns. If the secondary has 500 turns, calculate the secondary voltage.**

## Show all working out

1. **A 240/115 V single-phase transformer has 960 turns on its primary winding. Calculate the number of turns required on the secondary winding.**

## Show all working out

1. **A 230/110 V single-phase transformer has 800 turns on its primary winding. Calculate the number of turns required on the secondary winding.**

## Show all working out

1. **A transformer with a stepdown ratio of 10:1 is to be connected to a 415volt supply. Calculate the expected ouput of the transformer secondary below:**

***Show all working out***

**9) The 48 V output of a transformer is applied to a 48 ohm resistive circuit, causing 0.38 A to flow in the primary winding. Calculate the primary voltage.**

**Show all working out**

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**10) The primary winding of a transformer having 1000 turns. If the secondary is 240V and has 500 turns, calculate the primary voltage.**

**Show all working out**

**11) A 415/120 V single-phase transformer has 1260 turns on its secondary winding. Calculate the number of turns required on the primary winding.**

**Show all working out**

**12) A 440/230 V single-phase transformer has 962 turns on its secondary winding. Calculate the number of turns required on the primary winding.**

**Show all working out**

**13) A 960VA transformer has 1500 turns on the primary and 300 turns on the secondary.What is the secondary voltage and current if 240V is applied to the primary winding?**

**Show all working out.**

**14) What is the efficiency of a 2000VA single phase transformer if the iron losses are 50W and the copper losses are 100W?**

**Show all working out.**

**15) If a 240v/50V step down transformer has a output voltage of 47V when full load is connected what is its voltage regulation?**

**Show all working out.**

**16) A 2400VA step down autotransformer has a primary voltage of 240v and a secondary voltage of 200v. Calculate the current that will flow in the shared portion of the winding at full load.**

**Show all working out.**

**17) A 415v:240v 100A transformer requires 16.6V on the primary to produce the full rated current in the secondary with the secondary short circuited. What is the transformers percentage impedance?**

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**18) A 1200VA transformer has 1700 turns on the primary and 250 turns on the secondary.What is the secondary voltage and current if 220V is applied to the primary winding?**

**Show all working out.**

**19) What is the efficiency of a 2500VA single phase transformer if the iron losses are 25W and the copper losses are 90W?**

**Show all working out.**

**20) If a 230V/65V step down transformer has a output voltage of 61V when full load is connected what is its voltage regulation?**

**Show all working out.**

**21) A 2800VA step down autotransformer has a primary voltage of 240v and a secondary voltage of 220v. Calculate the current that will flow in the shared portion of the winding at full load.**

**Show all working out.**

**22) A 440v/240v 100A transformer requires 18.3V on the primary to produce the full rated current in the secondary with the secondary short circuited. What is the transformers percentage impedance?**

**Show all working out.**