

6. (1 point) Power is supplied to a load from an ideal, mains-driven transformer. The primary coil draws a current of 0.1 mA from the 240 V mains in order to deliver a current of 2.0 mA to a load as shown in Figure (4a). Which one of the following is correct set of values for the turn ratio (primary:secondary) and the potential difference across the load (in Volts).

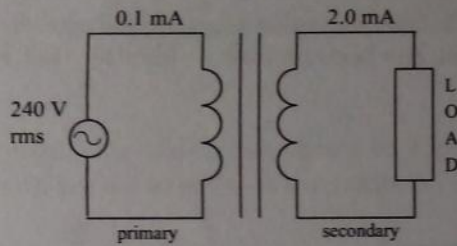
A. 300:6000; 12

☒ B. 6000:300; 12

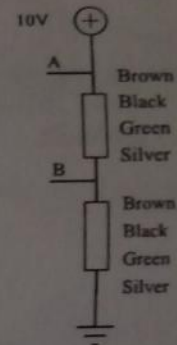
C. 300:6000; 4.8k

D. 6000:300; 4.8k

Figure 4



(a) Question number 6



(b) Question number 7

7. (1 point) A multimeter of internal resistance of  $1k\Omega$  is connected across A and B in the circuit shown in Figure (4b), the approximate reading of the multimeter will be

A. 10 mV

☒ B. 5 V

C. 5.005 V

D. 10 V

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$$10 \times 10^5 \pm 10\%$$

$$10^3 k\Omega$$