Designers Council

# PCB Certification (C.I.D.)

## *Sample Questions*

**1. If analog circuits are restricted to the center of a vertically mounted board, what is the effect of placing a power supply in the connector zone, below the analog circuits?**

A. the analog circuit performs better
B. the heat from the power supply causes instability
C. the power supply, influenced by the analog circuit, is erratic
D. the analog circuit requires additional protection to overcome spikes

**2. Which two factors are the primary influence for the layer assignment in a multi-layer printed board structure?**

A. the bonding material used
B. the requirements of solder mask
C. the direction of conductor routing
D. the relationship of core to prepreg
E. the balanced distribution of copper
F. the characteristics of the surface layer

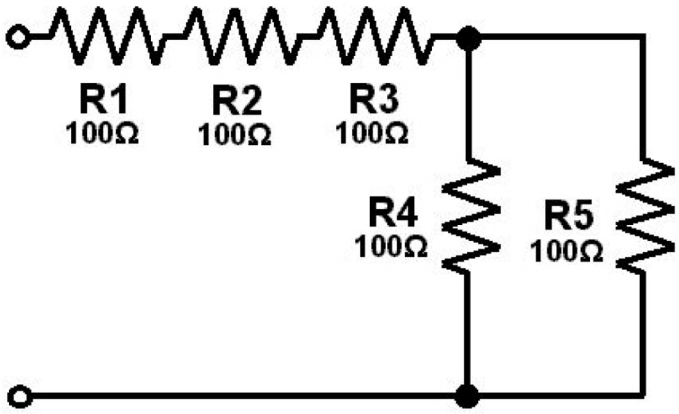
**3. What are the three most common dielectric thicknesses of copper-clad laminate used to produce double-sided printed boards?**

A. .50mm [0.020”]
B. .75mm [0.030”]
C. 1.00mm [0.040”]
D. 1.50mm [0.060”]
E. 2.00mm [0.080”]
F. 2.40mm [0.090”]

**4. What is the basic difference in part mounting techniques of SMT vs. through-hole components?**

A. SMT lands are smaller in area
B. through-holes require plating
C. SMT devices require no holes
D. solder joints are formed differently

**5. What is the total resistance of this circuit?**




A. 50 ohms
B. 233 ohms
C. 350 ohms
D. 500 ohms

**6. Which three factors are the primary influence for the layer assignment in a multilayer printed board structure?**

A. the drilling datum
B. the tertiary datum
C. the primary datum
D. the zero-zero datum
E. the secondary datum
F. the component datum

**7. What is the most probable cause of a through-hole multilayer board assembly repeatedly containing defective joints on the power and ground connections?**

A. the solder dwell is too short
B. component leads are too large
C. the board orientation is incorrect
D. respective through-holes are not thermally relieved

**8. What is the main consideration in the standard fabrication allowance?**

A. process variation
B. hole tolerance capability
C. aspect ratio characteristics
D. minimum annular ring requirements