



## **REWORK OF J-LEAD COMPONENTS (DVD-94C)**

**This test consists of twenty multiple-choice questions. All questions are from the video: *Rework of J-Lead Components (DVD-94C)*.**

**Each question has only one *most* correct answer. Circle the letter corresponding to your selection for each test item. If you wish to change an answer, erase your choice completely.**

**You should read through the questions and answer those you are sure of first. After your first pass through the test, then go back and answer the questions that you were not sure of. If two answers appear to be correct, pick the answer that seems to be the most correct response.**

**When you are finished, check to make sure you have answered all of the questions. Turn in the test materials to the instructor.**

**The passing grade for this test is 70% (14 correct answers or better).**

**Good luck!**

## REWORK OF J-LEAD COMPONENTS (DVD-94C)

Name \_\_\_\_\_ Date \_\_\_\_\_

1. **The two types of J-leaded components are**
  - a. QFP and SOIC
  - b. PGA and BGA
  - c. PLCC and SOJ
  - d. SOT and TSOP
  
2. **The lead pitch of a typical J-leaded component is**
  - a. 15 mils
  - b. 25 mils
  - c. 50 mils
  - d. 100 mils
  
3. **The heat setting for the pulse-heated hand tool is set based upon**
  - a. the specific component being removed as specified in your manual
  - b. the external flux being used
  - c. whether or not the tip is tinned
  - d. all of the above
  
4. **The tip of the pulse-heated hand tool should be positioned as close as possible to**
  - a. the bottom of the leads without touching the lands
  - b. the bottom of the leads and touching the lands
  - c. the middle of the leads
  - d. the top of the leads
  
5. **Lifting a component before all the solder joints have melted can**
  - a. lift a land
  - b. damage the board
  - c. destroy the component
  - d. all of the above
  
6. **When checking the fit of the thermal tweezers on a J-lead component**
  - a. the ends of the tip should extend a little past the last lead
  - b. the ends of the tip should extend well beyond the last lead
  - c. The ends of the tip should not extend past the last lead
  - d. any of the above

## REWORK OF J-LEAD COMPONENTS (DVD-94C)

- 7. The operating temperature of the thermal tweezer tips should be about**
  - a. 183 degrees C
  - b. 217 degrees C
  - c. 315 degrees C
  - d. 384 degrees C
  
- 8. If there is a considerable amount of residue or oxidation inside the tips, it should be**
  - a. immediately tinned with fresh solder
  - b. coated with a quantity of external flux
  - c. scrubbed with a sponge
  - d. brushed away with a fiber tool
  
- 9. The bridge fill method of transferring heat involves**
  - a. wrapping solder wire around the component
  - b. using a hand soldering iron to bridge all the leads together with solder
  - c. creating a flux bridge between the leads
  - d. using a heat bridge to bond solder to the lead and land
  
- 10. During the solder wrap process, the tips will need to be adjusted**
  - a. to open slightly wider than the outside edge of the solder wrap
  - b. to open significantly wider than the outside edge of the solder wrap
  - c. to fit snugly on the component being removed
  - d. any of the above
  
- 11. The purpose of land preparation is to**
  - a. perform rework and repair on lifted lands
  - b. provide a flat surface for the component to sit on during replacement
  - c. remove any components still soldered to the lands
  - d. all of the above
  
- 12. The two methods for doing land preparation are**
  - a. hot air pencil and soldering iron
  - b. solder braid and vacuum extraction
  - c. hot bar and thermal tweezers
  - d. solder wire and solder paste
  
- 13. For component orientation, the lead number 1 location is designated by**
  - a. a notch on the beveled edge of the component
  - b. a circular indentation on the beveled edge of the component
  - c. a circle or triangle printed on the circuit board
  - d. all of the above

## REWORK OF J-LEAD COMPONENTS (DVD-94C)

- 14. When hand soldering J-lead components, start with a temperature of**
- 384 degrees C
  - 315 degrees C
  - 217 degrees C
  - 183 degrees C
- 15. The proper technique is to begin soldering**
- on one of the corners that we did not tack down
  - on one of the corners that we tacked down
  - in the middle of a row – working outward
  - any of the above
- 16. J-lead connections require**
- less solder than gull wing connections
  - the same amount of solder as gull wing connections
  - a little more solder than gull wing connections
  - much more solder than gull wing connections
- 17. The fastest method for hand soldering J-lead components is**
- soldering one lead at a time
  - the continuous flow solder technique
  - soldering with two irons at the same time
  - any of the above
- 18. The temperature of the hot air pencil should be set to**
- 425 degrees C
  - 370 degrees C
  - 315 degrees C
  - 227 degrees C
- 19. When predrying the solder paste, the hot air pencil is held about**
- 4 cm away from the paste
  - 3 cm away from the paste
  - 2 cm away from the paste
  - 1 cm away from the paste
- 20. After the first hot air pencil joint is melted and formed**
- move the heat forward and reflow the next connection
  - observe each solder joint being formed as you move along the row
  - repeat the same procedure for each successive row
  - all of the above