Assignment 7

The due date for submitting this assignment has passed. Due on 2018-03-25, 23:59 IST.

Submitted assignment

1) Lead glass crystals used in glass welding becomes weldable at temperature around

   - 670 °C
   - 870 °C
   - 550 °C
   - 1250 °C

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   870 °C

2) Which is the best economical method for joining ceramics

   - Electron-beam welding
   - Laser Beam welding
   - Brazing
   - Friction welding

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Brazing

3) Spin welding is similar to which welding process

   - Ultra short pulse laser welding
   - Vibration welding
   - Ultrasonic welding
   - Friction welding

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Friction welding

4) In hot-plate welding, when the work-piece cools down, the polymer molecules become

   - Linear polymer
5) In which of the welding processes, the material must have high dielectric loss?
- Radio frequency welding
- Laser welding
- Electron Beam welding
- Ultrasonic welding

No, the answer is incorrect.
Score: 0
Accepted Answers:
Cross linked polymer

6) Which one of the following processes is NOT suitable for the joining of biocompatible plastics with metal?
- Adhesive bonding
- Laser beam welding
- Laser transmission welding
- Resistance welding

No, the answer is incorrect.
Score: 0
Accepted Answers:
Adhesive bonding

7) In which one of the following welding processes, very slow cooling rate should be followed to avoid cracking?
- Glass welding
- Plastic welding
- Welding of stainless steel
- Brazing of ceramics

No, the answer is incorrect.
Score: 0
Accepted Answers:
Glass welding

8) Which one of the following welding processes for plastics is mainly used for packaging, such that the welds are cosmetically appealing?
- Spin welding
- Friction stir welding
- Radio frequency welding
- Hot gas welding

No, the answer is incorrect.
Score: 0
Accepted Answers:
Radio frequency welding

9) Which one of the following welding processes of thermoplastic follows the principle of dielectric hysteresis losses?
- Ultrasonic welding
1. Vibration welding  
   Radio frequency welding  
   Ultra short pulse laser  

**No, the answer is incorrect.**  
**Score:** 0  
**Accepted Answers:**  
*Radio frequency welding*

10. Which one of the following types of material, is used for welding in furnace operation?  
   - Ceramics  
   - Titanium and alloys  
   - Polymeric materials  
   - Superalloys  

**No, the answer is incorrect.**  
**Score:** 0  
**Accepted Answers:**  
*Ceramics*

11. The acoustic vibration used in ultrasonic welding have frequency range of  
   - 20 to 70 kHz  
   - 10 to 60 GHz  
   - 10 to 60 Hz  
   - 20 to 70 GHz  

**No, the answer is incorrect.**  
**Score:** 0  
**Accepted Answers:**  
*20 to 70 kHz*

12. Which of the following welding process can be used to weld different glass materials, such as, fused silica, borosilicate glass and ultra-low expansion glass?  
   - Glass welding  
   - Ultra short pulse laser welding  
   - Friction welding  
   - Hot Gas welding  

**No, the answer is incorrect.**  
**Score:** 0  
**Accepted Answers:**  
*Ultra short pulse laser welding*

13. Radio frequency welding is also referred as  
   - Ultrasonic welding  
   - Vibration welding  
   - Dielectric welding  
   - Ultra short pulse laser welding  

**No, the answer is incorrect.**  
**Score:** 0  
**Accepted Answers:**  
*Dielectric welding*

14. In ultra-fast laser, the pulse duration is in the range of  
   - 10 fs to 10 ps  
   - 10 ps to 1 ns  
   - 1 ns to 1 μs  

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In welding of polymeric materials, which one of the following statements is correct?

- Pressure is not required to improve melt flow across the interface
- Semi-crystalline polymers must be heated below melting temperature
- Thermosets can be welded without the addition of tie-layers
- Healing of the interfaces is basically diffusion of polymer chains across the interface

No, the answer is incorrect.

Score: 0

Accepted Answers:

Healing of the interfaces is basically diffusion of polymer chains across the interface