

Unit 8 - Week 7

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Mechanical joining

Microwave joining

Induction and resistance welding

Drilling of polymer matrix composites-I

Drilling of polymer matrix composites-II

Quiz : Assignment 7

Solution For Assignment 7

Week 8

Text Transcripts

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WEEKLY FEEDBACK

Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-03-18, 23:59 IST.

1) In induction welding technique, thermoplastic composites having non conducting reinforcement is heated by using susceptors at joining interface. **1 point**

True

False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

2) Delamination factor is the ratio of maximum diameter of the drilling induced damage around the hole to the nominal hole diameter. **1 point**

True

False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

3) Choose the correct statements regarding microwave joining of polymer composites. **1 point**

1 Most of the thermoplastics have low dielectric loss factor

2 Thermoset and thermoplastic does not contain permanent dipole

3 Microwave contains electromagnetic waves in which electric and magnetic field are perpendicular to each other

1 and 2

1, 2 and 3

1 and 3

2 and 3

No, the answer is incorrect.

Score: 0

Accepted Answers:

1, 2 and 3

4) When high frequency microwaves interact with material; they cause heating of material due to; **1 point**

Hysteresis loss

Dipolar loss

Eddy current loss

All of these

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of these

5) The failure mechanism (s) observed in mechanical fastened joint (is) are; **1 point**

Shear out

Bolt shear

Bearing

All of these

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of these

6) The type (s) of induction coil used during induction welding is (are); **1 point**

Pancake type

Single turn type

Solenoid type

All of these

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of these

7) Choose the correct statements considering the mechanical joining technique. **1 point**

1 Mechanical joints add weight to the structure

2 Delamination originates during drilling of composites laminate

3 Causes changes to material microstructure or composition

1 and 3

1 and 2

2 and 3

1, 2 and 3

No, the answer is incorrect.

Score: 0

Accepted Answers:

1 and 2

8) In resistance welding, heat is generated due to resistance heating (joule loss) of conducting fiber. **1 point**

True

False

No, the answer is incorrect.

Score: 0

Accepted Answers:

True

9) Resistance welding can be used for joining of components made of; **1 point**

1 Polyethylene

2 Epoxy

3 Polypropylene

1 and 2

1 and 3

1, 2 and 3

2 and 3

No, the answer is incorrect.

Score: 0

Accepted Answers:

1 and 3

10) In resistance welding, _____ is (are) used as conducting medium (s). **1 point**

Conducting fiber

Metallic wire

Metallic mesh

All of these

No, the answer is incorrect.

Score: 0

Accepted Answers:

All of these