

Unit 9 - Week 8

Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

● Methods to prevent drilling induced damage

○ Non-conventional drilling

● Process simulation of secondary processing

● Intelligent drilling of polymer matrix composites

● Web based tools for polymer matrix composites

○ Quiz : Assignment 8

○ Solution For Assignment 8

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WEEKLY FEEDBACK

Assignment 8

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

Due on 2020-03-25, 23:59 IST.

1) The objective of a Knowledge Based Tool is to help engineers and scientists with their specific queries regarding drilling of composite materials. **1 point**

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

2) In the modern Rotary Ultrasonic Machines, it is possible to give rotary motion as well as ultrasonic vibration. **1 point**

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

3) Ultrasonic machining is typically used on brittle materials; **1 point**

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

4) Advance techniques of hole making in polymer based composites are; **1 point**

- 1 Helical feed method
2 Ultrasonic assisted drilling
3 Wood-pecker cycle

- 1, 2 and 3
 2 and 3
 1 and 3
 1 and 2

No, the answer is incorrect.
Score: 0

Accepted Answers:
1, 2 and 3

5) The CORRECT statements considering the drilling of polymer based composites are; **1 point**

- 1 Use of backup plate reduces the drilling induced damage
2 Use of backup plate improves the quality of hole produced
3 Use of backup plate mainly reduces the peel-up type of delamination

- 1 and 3
 2 and 3
 1 and 2
 1, 2 and 3

No, the answer is incorrect.
Score: 0

Accepted Answers:
1 and 2

6) Advantages of helical feed method of drilling includes; **1 point**

- 1 Chip removal is better
2 Increase in thrust force
3 High quality hole produced
4 Decrease in drilling induced damage

- 1, 3 and 4
 1, 2 and 3
 1, 2, 3 and 4
 1, 2 and 4

No, the answer is incorrect.
Score: 0

Accepted Answers:
1, 3 and 4

7) Choose the correct statement (s); **1 point**

- Vibration assisted drilling significantly improves chip expulsion
 In rotary ultrasonic machining (tool rotating), tool is provided with the ultrasonic vibration as well as rotation
 Vibration assisted drilling improve the quality of holes
 All of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of these

8) The green guide tool works by using a dynamic questions process which calculates a final green guide rating based upon the answers provided. **1 point**

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

9) In vibration assisted drilling, the contact between the tool and work piece is intermittent. **1 point**

- True
 False

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

10) Ultrasonic drilling technique can be used for drilling of; **1 point**

- Polypropylene based composites
 Epoxy based composites
 Both A and B
 None of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
Epoxy based composites