

Unit 7 - Week 5

Course outline

How does an NPTEL online course work?

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Ultrasonic testing - 6

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Quiz : Week 5 Practice Assessment

Quiz : Assignment 5

Week 5 Feedback : Theory and Practice of Non Destructive Testing

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Assignment 5

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

Due on 2020-03-04, 23:59 IST.

1) By using low frequencies for ultrasonic testing:

1 point

- Closely spaced flaws will result distinct peaks
- Output signals will have large intensities
- Penetration depth will be very less
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Output signals will have large intensities

2) The minimum signal-to-noise ratio acceptable in ultrasonic testing is:

1 point

- 3:1
- 10:1
- 5:1
- 2:1

No, the answer is incorrect.
Score: 0

Accepted Answers:
3:1

3) In ultrasonic testing, while calibrating distance for an angle probe, which of the following block is used?

1 point

- Series 'B' block
- ASTM block
- Triangular block
- IIW block

No, the answer is incorrect.
Score: 0

Accepted Answers:
IIW block

4) The velocity of ultrasonic waves in a medium is not dependent on:

1 point

- Modulus of elasticity
- Density of the medium
- Magnetic permeability of the medium
- Poissons ratio of the sample

No, the answer is incorrect.
Score: 0

Accepted Answers:
Magnetic permeability of the medium

5) In ultrasonic testing, defect hole in a calibrating block of Series 'B', marked as 3-0075 will be:

1 point

- At a depth of 0.75 mm and have 0.3 mm diameter
- At a depth of 19.05 mm and have 1.19 mm diameter
- At a depth of 3 mm and have 0.75 mm diameter
- At a depth of 3 inch and have 0.75 inch diameter

No, the answer is incorrect.
Score: 0

Accepted Answers:
At a depth of 19.05 mm and have 1.19 mm diameter

6) In ultrasonic testing, IIW blocks can be used to estimate:

1 point

- Dead zone
- Beam angle
- Beam spread
- All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above

7) Intensity of the echo in ultrasonic testing is:

1 point

- Directly proportional to the square root of depth of defect from surface
- Inversely proportional to the depth of defect from surface
- Inversely proportional to the square of depth of defect from surface
- Not dependent on the depth of defect from surface

No, the answer is incorrect.
Score: 0

Accepted Answers:
Inversely proportional to the square of depth of defect from surface

8) An ultrasonic echo returned from a flaw in an iron rail in 0.02 milliseconds. From rail surface, the flaw lies at a depth of [Given: Velocity of sound in iron = 5.12 km/s]:

1 point

- 51.2 mm
- 10.24 cm
- 2.56 cm
- Insufficient data to calculate the depth of flaw

No, the answer is incorrect.
Score: 0

Accepted Answers:
51.2 mm

9) The temporal spread of initial peak in ultrasonic testing indicate:

1 point

- Size of the defect
- The extent of dead zone
- The resolution of probe
- The error in measurement

No, the answer is incorrect.
Score: 0

Accepted Answers:
The extent of dead zone

10) The area calibration of ultrasonic instruments gives us:

1 point

- The lower limit of flaw size
- The upper limit of flaw size
- Error-free exact dimensions of flaw
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
The lower limit of flaw size