

# Unit 8 - Week 6

## Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Acoustic Emission Testing - 1

Acoustic Emission Testing - 2

Acoustic Emission Testing - 3

Acoustic Emission Testing - 4

Acoustic Emission Testing - 5

Quiz : Week 6 Practice Assessment

Quiz : Assignment 6

Week 6 Feedback : Theory and Practice of Non Destructive Testing

Week 7

Week 8

Text Transcripts

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## Assignment 6

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

**Due on 2020-03-11, 23:59 IST.**

1) The major difference of acoustic emission method from other forms of NDT is that:

1 point

- Acoustic emission relies on visual interpretation of data
- Computers are used exclusively for analysis
- The energy detected is radiated from the defect itself
- Transducers are used to gather data
- Developers are used to indicate the flaws

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*The energy detected is radiated from the defect itself*

2) After loading the sample, which of the following waves are generated in acoustic emission test:

1 point

- Light waves
- Sound waves
- Elastic waves
- Stress wave
- Both a, b and d
- Both b, c and d

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Both b, c and d*

3) During acoustic emission inspection, with no load, with active defect present in test specimen, we can observe acoustic emission:

1 point

- True
- False

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*False*

4) Acoustic emissions are generated in defective metal systems by:

1 point

- Slip
- Impurity inside a metal
- corrosion
- phase transformation
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*All the above*

5) Which of the following factor is responsible for the generated acoustic emission in a composite at low strain levels:

1 point

- Fiber debonding
- Fiber breakage
- Fiber pullout
- Microcracking

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Fiber debonding*

6) Which of the following is considered as the source parameters of acoustic emission?

1 point

- Stress
- Crack radius
- Radial velocity of the crack propagation
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*All the above*

7) What are the characteristics of acoustic signal emitted from brittle material?

1 point

- High frequent bursts of higher amplitude
- Less frequent bursts of higher amplitude
- High frequent bursts of Low amplitude
- Less frequent bursts of low amplitude

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Less frequent bursts of higher amplitude*

8) Acoustic emission signals are classified into:

1 point

- Two types
- Three types
- Four types
- Five types

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Two types*

9) What should be the Felicity ratio for the safe functioning of a material being inspected by acoustic emission testing?

1 point

- 0.5
- 0.25
- 0.4
- 1.0

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*1.0*

10) Which of the following parameters can be used to filter out noise in acoustic emission testing?

1 point

- Threshold
- Duration
- Rise time
- Both B and C

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Both B and C*