

Measurement of Non-Electrical Quantities

Total Questions: 6

Most Correct Answers: #3

Least Correct Answers: #6

1. Coded displacement measurement...

- 20/47 A ...is a method to encrypt displacement signals from measurements.
- 17/47 B ...allows to determine the absolute, not only the relative, position.
- 17/47 C ...is an optical measurement technique.

2. The differential measurement principle...

- 7/47 A ...is used for the differentiation of a measured quantity.
- 18/47 B ...is used to combine measurements of different physical quantities.
- 17/47 C ...can be used to create an exact linear characteristics.

3. For the measurement of accelerations...

- 26/47 A ...the measurement of a force acting on a body of known mass can be utilized to determine the acceleration.
- 10/47 B ...the derivative of speed signals has to be low-pass filtered. This delays the acceleration signal strongly, if the time constant of the filter is small.
- 3/47 C ...the derivative of speed signals is well suited, if the speed signal is highly disturbed.

4. Piezoelectric force measurement...

- 22/47 A ...requires additional effort to measure static forces.
- 12/47 B ...requires conducting fluids for the force measurement.
- 34/47 C ...is well suited for fast dynamic measurements.

5. For the measurement of temperature...

- 16/47 A ...resistance thermometers offer the possibility of point-wise measurements.
- 34/47 B ...thermocouples are faster than resistance thermometers.
- 23/47 C ...resistance thermometers are more accurate than thermocouples.

6. There are different ways to measure speed.

- 0/47 A A constant translational speed can be determined through the measurement of a static force.
- 0/47 B Faster approaching bodies emit radio and/or sound waves with higher frequencies than slower approaching bodies.
- 0/47 C No direct speed measurements are possible.