Assignment 0

Due on 2019-02-04, 23:59 IST.
As per our records you have not submitted this assignment.

1) Random error can be reduced by
   a. Averaging
   b. Calibration
   c. Error analysis
   d. Triggering

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   (a)

2) Optical encoder is used to measure
   a. Torque
   b. Rotational speed
   c. Acceleration
   d. None of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   (b)

3) Which of the following is used for contact type measurement?
   a. Piezoelectric accelerometer
   b. Optical encoder
   c. Infrared camera
   d. Rotational laser vibrometer

   Score: 0
   Accepted Answers:
   (b)
4) Balancing of rotating masses in single plane is
   a. Static balancing
   b. Dynamic balancing
   c. Both a. and b.
   d. None of the above

   Accepted Answers: (a)

   No, the answer is incorrect.
   Score: 0

5) Which is a type of Non-destructive testing?
   a. Compression testing
   b. Creep test
   c. Ultrasonic testing
   d. All of the above

   Accepted Answers: (c)

   No, the answer is incorrect.
   Score: 0

6) A periodic function \( f(t) \) with period \( T \) satisfies \( f(t+T) = f(t) \)
   a. True
   b. False

   Accepted Answers: (a)

   No, the answer is incorrect.
   Score: 0

7) In which type of vibration, amplitude of vibration decreases with time?
   a. Free damped
   b. Free undamped
   c. Both a. and b.
   d. Forced vibration

   Accepted Answers: (a)

   No, the answer is incorrect.
   Score: 0
8) If the sound pressure is doubled, what is the increase in sound pressure level in dB?
   a. 2 dB
   b. 6 dB
   c. 3 dB
   d. 4 dB

   Accepted Answers:
   (a) (b) (c) (d)

   No, the answer is incorrect.
   Score: 0

9) The reference sound pressure is
   a. 1 μPa
   b. 5 μPa
   c. 10 μPa
   d. 20 μPa

   Accepted Answers:
   (a) (b) (c) (d)

   No, the answer is incorrect.
   Score: 0

10) In Frequency Modulation which one is true?
    a. Amplitude of carrier changes
    b. Frequency of the carrier varies
    c. There are no sidebands
    d. None

   Accepted Answers:
   (a) (b) (c) (d)

   No, the answer is incorrect.
   Score: 0

11) Rotating unbalance is caused by
    a. Base excitation
    b. Eccentricity in the rotor
    c. Both
    d. None

   Accepted Answers:
   (a) (b) (c)
12) What are the causes of engine order vibrations?
   a. Impact during combustion
   b. Reciprocating Unbalance
   c. Both a. and b.
   d. None

   No, the answer is incorrect.
   Accepted Answers:
   (b)

13) An unbalance force of 200 N is acting on a machine. For a frequency ratio \( \omega_1/\omega_2 \) of 1.6 and damping coefficient \( \zeta \) of 0.5, determine the force transmitted to the foundation.
   a. 151.2 N
   b. 140.8 N
   c. 168.8 N
   d. 132.5 N

   No, the answer is incorrect.
   Accepted Answers:
   (c)

14) The natural frequency of tuned dynamic absorber is same as of the primary vibrating system
   a. True
   b. False

   No, the answer is incorrect.
   Accepted Answers:
   (a)

15) The force transmissibility is less than 1 for the frequency ratio \( \omega_1/\omega_2 \)
   a. \(< \sqrt{2}\)
   b. \(> \sqrt{2}\)
   c. \(<1/\sqrt{2}\)
   d. \(>1/\sqrt{2}\)

   No, the answer is incorrect.
   Accepted Answers:
   (a)
No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)