ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

- **Subject- Physics** **Worksheet- -29** **Class – IX**
- **Date -29.04.2020**

- **Chapter- Elasticity**

- **Answer the following questions (MCQ) :** **(1×15):**

Question1:

The formula we use to find stress is

1. area/force
2. force/area
3. force + area
4. force×area

Question 2:

The unit of strain is

1. newton
2. joule
3. pascal
4. no unit

Question 3:

A comparison of such a change caused by the stress with the original shape, volume or length is called

1. stress
2. strain
3. density
4. elasticity

Question 4:

The property of a body to restore its original size and shape as the deforming force ceases to act is called

1. energy
2. floating
3. elasticity
4. density³

Question 5:

If stress produces a change in the length of an object then the strain is termed as

1. zero strain
2. constant strain
3. former strain
4. tensile strain

Question 6.

The substance which shows practically no elastic after effect is (AFMC 94)

Quartz
Copper
Silk
Rubber

Question 7.

The Young's modulus of the wire of length L and radius r is Y. if the length is reduced to)L/3 (and radius to(r/2) its Young's modulus will be (MHT-CET 2001)

Y
4Y/3
3Y/4
12Y

Question 8.

The force constant of a wire is K and that of another wire of the same material is 2 K. when both the wires are stretched, then work done is (MHT-CET-2000)

W2 0.5 W1
W2 W1
W2 2W
W2 2W12

Question 9.

Energy in a stretched wire is

Half of load strain
Half of stress strain

Stress strain
Load strain

Question 10.

In a wire, when the elongation is 2 cm, the energy stored is E. if the wire is stretched by 10 cm, then the energy stored in the wire will be

E
5E
25E
25/2*E

Question 11.

On stretching a wire, he elastic energy per unit volume is,

1 F DI/2 A L
1 FA/ 2 I
1/2*FI/A
1/2*F.1

Question 12.

Out of the following materials, whose elasticity is independent of temperature?

Copper
Invar steel
Brass
Silver

Question13.

Young's modulus of the material of a wire of length L and radius r is Y N/m2. if the length is reduced to L/2 and radius to r/2, the Young's modulus will be

Y
2Y
Y/4
Y/2

Question 14 .

Two steel wires of he same radius have their lengths in the ratio of 1:2. if they are stretched by the same force, then the strains produced in the two wires will be in the ratio of

1:2
2:1
1:1
1:4

Question 15.

Which of the following is dimensionless quantity?

Stress
Young’ s modulus
Strain
Pressure

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