WORKSHOP CALCULATION & SCIENCE TEST FOR THE MONTH OF JAN-26

January 2026   **GOVT ITI CHINCHOLI**   Answer Key

Duration: 30 Mins   **Total Marks: 10**   **Q.ID: ITISKILL6409DU**

1. What is the youngs modulus if a wire of 2m long, 0.8 mm2 in cross section increases its length by 1.6 mm on suspension of 8 kg weight from it?

A) 12500 kg/mm^2

B) 1.25 kg/mm^2

C) 12.5 kg /mm^2

D) 125 kg/mm^2

Answer: A) 12500 kg/mm^2

2. Which one is the ratio of stress?

A) Load and diameter

B) Load and time

C) Load and area

D) Load and direction

Answer: C) Load and area

3. Which force acts on crank shaft?

A) Compressive stress

B) Torsional stress

C) Shear stress

D) Tensile stress

Answer: B) Torsional stress

4. What is the ratio of ultimate load to area of original cross section?

A) Youngs modulus

B) Ultimate stress

C) Factor of safety

D) Yield point

Answer: B) Ultimate stress

5. What is the ratio between ultimate stress to working stress?

A) Bulk modulus

B) Young's modulus

C) Modulus of rigidity

D) Factor of safety

Answer: D) Factor of safety

6. How much strain is developed in an iron rod of 1 metre length gets elongated by 1 cm, if a force of 100 kg is applied at one end?

A) 0.001

B) 0.0001

C) 0.01

D) 0.1

Answer: C) 0.01

7. What is the ratio between stress and strain?

A) Poisson's ratio

B) Factor of safety

C) Yield point

D) Youngs Modulus

Answer: D) Youngs Modulus

8. Which symbol is used to express change in length?

A) l

B) L

C) delta l

D) e

Answer: C) delta l

9. What is the safe stress if the ultimate stress of a material is 35 kg/mm^2 and factor of safety is 5?

A) 0.7

B) 7

C) 0.143

D) 1.43

Answer: B) 7

10. What is the term used for maximum stress attained by a material before rupture?

A) Compressive stress

B) Tensile stress

C) Working stress

D) Ultimate stress

Answer: D) Ultimate stress