NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	When boron is added as an impurity to silicon, the resulting material is.	A. n type conductor B. n type semiconductor C. p-type conductor D. p-type semiconductor
2	When we apply reverse bias to a junction diode, it	A. Lowers the potential barrier B. Raise the potential barrier C. Increase the majority carrier current D. Increase the minority carrier current
3	In a common base transistor circuit, the current gain is 0.98. On changing the emitter current by 5.00 mA, the change in collector current is	A. 0.916 mA B. 2.45 mA C. 4.9 mA D. 5.1 mA
4	In case of p-n junction diode, at high value of reverse bias, the current rises sharply. The value of reverse bias is known as:	A. Cut off voltage B. Zener voltage C. Inverse voltage D. Critical voltage
5	A cable breaks if stretched by more than 2 mm. It is cut into two equal parts. How much either part can be stretched without breaking?	A. 0.25 m B. 0.5 m C. 1 mm D. 2 mm
6	A cable that can support a load W is cut into two equal parts. The maximum load that can be supported by either part is:	A. W/4 B. W/2 C. W D. 2W
7	For obtaining appreciable extension, the wire should be	A. Short and thin B. Long and thin C. Short and thick D. Long and thick
8	According to the Hooke's law the force required to change the length of a wire by 'l' is proportional to	A. l⁻² B. l⁻¹ C. l D. l²
9	A wire is stretched to double of its length. The strain is	A. 2 B. 1 C. zero D. 0.5
10	How does the Young's modulus vary with the increase of temperature?	A. Decrease B. Increases C. Remains constant D. First increases and then decreases
11	The modulus of rigidity of a liquid is	A. Zero B. 1 C. Infinity D. A value not one of those mentioned above
12	Steel is preferred for making springs over copper. Why?	A. Steel is cheaper B. Young's modulus of steel is more than that of copper C. Young's modulus of copper is more than that of steel D. Steel is less likely ot be oxidized
13	Which of the modulus of elasticity is involved in compression a rod to decrease its length?	A. Young's modulus B. Bulk modulus C. Modulus of rigidity D. None of the above
14	The dimensional formula for the modulus of elasticity is same as that for:	A. Stress B. Strain C. Velocity

		D. Surface tension
15	The henry is the unit for	A. Resistance B. Magnetic flux C. Magnetic field D. Inductance