11. A uniform steel wire of length 4m and area of cross-section 3x10-6m2 is extended by 1mm by the application of a force. If the youngs modulus of steel is 2x1011 Nm-2 the energy stored in the wire is

A. 0.025J
B. 0.50J
C. 0.75J
D. 0.100J

Answer: Option C

12. The ration stress to strain in youngs modulus of the material then tension is

A. Directly proportional to extension.
B. Directly proportional to strain.
C. Directly proportional to square of amplitude.
D. Inversely proportional to extension.

Answer: Option A

13. Materials that undergo plastic deformation before breaking are called

A. Brittle
B. Ductile
C. Amorphous
D. Polymers

Answer: Option B

14. A wire is stretched by a force F which causes an extension 1. The energy stored in the wire is

A. The extension of the wire is proportional to the force applied
B. The weight of the wire is negligible
C. The wire is not stretched beyond its elastic limit
D. The cross sectional area of the wire remains constant

Answer: Option A

15. A wire obeys Hooks law is of length 11 when it is in equilibrium under a tension F1. Its length becomes 12 when the tension is increased to F2. The energy stored in the wire during this process is

A. (F1+F2) (121+122)
B. (F1+F2) (122-112)

C. (F1+F2) (12-11)

D. (F1+F2) (12-11)

Answer: Option **C**

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16. Formation of large molecule by joining small molecules is

A. Fusion

B. Polymerization

C. Crystallization

D. Subtraction

Answer: Option **B**

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17. Any alteration produced in shapes length or volume when a body is subjected to some external force is called

A. Stiffness

B. Toughness

C. Extension

D. Deformation

Answer: Option **D**

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18. The energy band occupied by the valence electrons is called

A. Energy state

B. Valence band

C. ve energy state

D. conduction band

Answer: Option **B**

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19. The curie temperature is that at which

A. Semi-conductor becomes conductors

B. Ferromagnetic becomes paramagnetic

C. Paramagnetic becomes diamagnetic

D. Metals become super conductor

Answer: Option **B**

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20. A ferromagnet will become fully magnetized at

A. High voltage A.C

B. Low voltage A.C

C. Alternating current at its peak value

D. D.C current at peak value

Answer: Option c