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Material Science Question Bank
By- S. A. Dhavale, Div-13

1. What do you understand by hardness
 - a) It is a resistance to deformation
 - b) It is resistance to scratch
 - c) It is resistance to indentation
 - d) AllAnswer: d) All
2. The material shows maximum hardness _____
 - a) Diamond
 - b) Calcite
 - c) Talc
 - d) TopazAnswer: a) Diamond
3. Talc's hardness values is _____
 - a) 1
 - b) 3
 - c) 9
 - d) 12Answer: a) 1
4. Hardness testing includes _____
 - a) Brinell
 - b) Vickers
 - c) Rockwell
 - d) AllAnswer: d) All
5. Based on what one can identify the particular hardness testing
 - a) Surface analysis
 - b) Indenter shape and size
 - c) Material of indenter
 - d) NoneAnswer: b)
6. Toughness testing includes
 - a) Brinell
 - b) Izod
 - c) None
 - d) Don't knowAnswer: b)
7. Tensile test provides data
 - a) About young's modulus
 - b) Ultimate tensile strength
 - c) Both a and b
 - d) NoneAnswer: c) Both a and b
8. The equation is used for $\frac{P}{(\pi Dt)}$?
 - a) To calculate Rockwell hardness
 - b) To calculate Brinell hardness
 - c) To calculate Tensile strength
 - d) None of these

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Answer: b) to calculate Brinell hardness

9. In vicker's hardness testing the indenter used is of shape _____
- a) Circular
 - b) Square
 - c) Square based diamond pyramid
 - d) Solid ball

Answer: c) Square based diamond pyramid

10. To check hardness of carburized steel surface or thin coatings which of the following method is used?
- a) Brinell
 - b) Rockwell
 - c) Vickers
 - d) Microhardness

Answer: d) Microhardness

11. Ratio of change of length to original length is called as _____
- a) Stress
 - b) Strain
 - c) True stress
 - d) None

Answer: b) Strain

12. Stress is calculated by using these quantities _____
- a) Pressure and area
 - b) Force and volume
 - c) Force and area
 - d) Pressure and volume

Answer: c) Force and Area

13. The equation is used for $\frac{1.854 P}{(L^2)}$?
- a) Brinell hardness
 - b) Rockwell hardness
 - c) Vickers hardness
 - d) Microhardness

Answer: c) Vickers hardness

14. Elastic deformation will be possible only for
- a) The metal which obeys Hook's Law
 - b) The material which are naturally existed in nature
 - c) All non-metals
 - d) None

Answer: a) The metal which obeys Hook's Law

15. The result of the tensile testing is
- a) A stress-strain curve
 - b) A graph upto failure of material

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- c) A graph of both metal and non-metals behaviors with respect to unidirectional loading
- d) All

Answer: d) All

16. Necking starts after elastic deformation

- a) True
- b) False
- c) Cant say
- d) Statement is invalid

Answer: b) false

17. Ultimate strength is the maximum stress which can be sustained by material before necking.

- a) True
- b) False
- c) Cant say
- d) Statement is invalid

Answer: a) True

18. Cup and cone would be formed for _____

- a) Non metals
- b) Diamond
- c) Steel
- d) None

Answer: c) Steel

19. The energy absorbed by nonmetals are _____

- a) Less as compared with metals
- b) More than metals
- c) Cant say
- d) Invalid statement

Answer: a) Less as compared with metals

20. The plastic deformation is only possible for _____

- a) Non metals
- b) Diamond
- c) Metals
- d) None

Answer: c) Metals

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