

Q.24 List different mechanical properties of metals.
Explain any four of them.

Q.25 List different properties of fluids. Describe any four
of them in brief.

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1st Year / Agri. Tech.

Subject : Basics of Agricultural Engineering

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The property of a material by which it deforms continuously under a steady load
- a) Wear resistance b) Fatigue
 - c) Hardness d) Creep
- Q.2 A flow in which the velocity of flow at a given instant of time changes from one point to other.
- a) Steady b) Unsteady
 - c) Uniform d) Non-uniform
- Q.3 The ratio of normal stress to normal strain is
- a) Young's Modulus b) Hook's Law
 - c) Bulk Modulus d) Poisson's Ratio

Q.4 The ability of a given material to conduct / transfer heat.

- a) Conduction
- b) Thermal conductivity
- c) Electrical conductivity
- d) Convection

Q.5 The ability of material to get stretched into a wire by pulling or drawing

- a) Toughness b) Ductility
- c) Malleability d) Plasticity

Q.6 The device used for measuring pressure

- a) Viscometer b) Hydrometer
- c) Manometer d) Barometer

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define Lustre.

Q.8 Define Porosity.

Q.9 Define Yield strength.

Q.10 Define Atmospheric pressure.

Q.11 Define Brittleness.

Q.12 Define Wear resistance

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SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 What are different modes of heat transfer?

Q.14 Write a short note on the importance of engineering materials.

Q.15 Describe the principle of refrigeration.

Q.16 Describe causes, effects and control of corrosion.

Q.17 Enlist different pressure measuring devices.

Q.18 Write down the practical applications of hydraulics.

Q.19 Describe applications of refrigeration and air conditioners in agriculture.

Q.20 Enlist different pressure measuring devices.

Q.21 Describe any four physical properties of metals.

Q.22 What is the difference between uniform and non-uniform flow?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 What is meant by kinematics? Describe any four types of fluid flow in brief.

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