

- Q.24 List different mechanical properties of metals.
Explain any four of them.,
- Q.25 a) Write the applications of refrigeration and Air Conditioners in agriculture.
b) Write down the practical applications of hydraulics.

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Branch : Agriculture Engg.

Subject : Basics of Agriculture Engg.

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

- Q.1 The process of heat transfer in which heat flows from a hotter to cold body in the form of electromagnetic waves.
- a) Conduction b) Radiation
c) Convection d) Thermal radiation
- Q.2 The internal resistance per unit area of cross section offered by a body against the deformation
- a) Strain b) Stress
c) Strength d) None of these
- Q.3 The type of flow in which the fluid particles move along well defined paths or streamline and streamline are straight and parallel
- a) Laminar flow b) Compressible flow
c) Uniform flow d) Unsteady flow

- Q.4** The ratio of tensile stress and tensile strain is
a) Young's Modulus b) Hook's Law
c) Bulk Modulus d) Poisson's Ratio
- Q.5** Which of the following is not a physical property of metals
a) Density b) Porosity
c) Structure d) Tensile strength
- Q.6** The ability of material to be drawn from a large section to a small section such as in wire drawing.
a) Toughness b) Ductility
c) Elasticity d) Plasticity

Section-B

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

- Q.7** Define Bulk Modulus.
- Q.8** Define Malleability.
- Q.9** Define Compressive strain.
- Q.10** Define specific Weight.
- Q.11** Define Gauge Pressure.
- Q.12** Define Surface tension.

Section-C

Note: Short answer type Questions. Attempt any Eight questions out of Ten Questions. (8x4=32)

- Q.13** Describe the principle of refrigeration.
- Q.14** Describe causes, effects and control of corrosion.
- Q.15** Describe different modes of heat transfer.
- Q.16** Enlist the major components of Air Conditioner.
- Q.17** Differentiate potential energy and kinetic energy.
- Q.18** What is the difference between uniform and non-uniform flow?
- Q.19** What is the difference between Shear and volumetric strain.
- Q.20** Describe any four physical properties of metals.
- Q.21** Write a short note on the importance of engineering materials.
- Q.22** Enlist different pressure measuring devices.

Section-D

Note: Long answer 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.