

SECTION-D

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

- Q.23 What are different modes of heat transfer? Explain with examples.
- Q.24 What do you mean by corrosion? What are its causes, effects and how would you control corrosion?
- 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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Roll No.

180117

1st Year. / Branch : Agriculture Engg.
Subject:- Basics of Agricultural Engg.

Time : 3Hrs.

M.M. : 60

SECTION-A

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

- Q.1 Mass per unit volume of the material is
a) Porosity b) Structure
c) Density d) Stiffness
- 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 ability of material to be formed in the form of a thin sheet by hammering or rolling
a) Toughness b) Ductility
c) Malleability d) Plasticity

Q.4 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.5 The property of liquid by virtue of which it adheres to the solid body with which it is in contact

- a) Surface Tension
- b) Adhesion
- c) Cohesion
- d) Capillarity

Q.6 It is the ability of a material to resist to permanent shape change due to the external stress.

- a) Brittleness
- b) Malleability
- c) Fatigue
- d) Hardness

SECTION-B

Note: Objective type questions. All questions are compulsory. $(6 \times 1 = 6)$

Q.7 Define Ductility.

Q.8 Define Melting point.

Q.9 Define Viscosity.

Q.10 Define Vapour pressure.

Q.11 Define Potential energy

Q.12 Define Specific weight

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

Q.13 Write down different factors affecting mechanical properties.

Q.14 Differentiate potential energy and kinetic energy.

Q.15 What is the difference between Laminar flow and turbulent flow?

Q.16 Describe the concept of pressure and devices used for measuring it.

Q.17 Enlist the major components of air conditioner

Q.18 Describe any four physical properties of metals.

Q.19 Describe Hooke's Law.

Q.20 Describe any four types of fluid flow in brief.

Q.21 What is the difference between Shear and volumetric strain.

Q.22 What are different types of stresses?