

SECTION-D

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

Q.23 What are mechanical properties of metals? Describe any four of them.

Q.24 a) Write difference between Laminar flow and turbulent flow.

b) What are the objectives of tillage?

Q.25 a) Define Bulk modulus and viscosity.

b) What do you mean by soil and water conservation?

No. of Printed Pages : 4

Roll No.

220124

2nd Sem. / Agri.

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 ratio of tensile stress and tensile strain is

- a) Young's Modulus b) Hook's Law
c) Bulk modulus d) Poisson's Ratio

Q.2 The capacity of a material to withstand deformation under compression without rupture

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

Q.3 The excess removal of water from field is

- a) Irrigation b) Water logging
c) Drainage d) None of these

Q.4 The property of the material which enables it to regain its original shape after deformation is

- a) Plasticity b) Elasticity
c) Stiffness d) Ductility

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Q.5 The transfer of heat take place by the condition

- a) Convection b) Conduction
- c) Radiation d) All of these

Q.6 The measurement instrument utilized in surveying to determine horizontal and vertical angles with the tiny low telescope.

- a) Dumpy Level b) Levelling Staff
- c) Theodolite d) Line Ranger

SECTION-B

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

Q.7 Define Evaporation.

Q.8 Define Rain water harvesting.

Q.9 Define contouring.

Q.10 Write any two pressure measuring devices.

Q.11 Define Potential energy.

Q.12 Name any two unit operations.

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SECTION-C

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

Q.13 What is Rainwater harvesting? What are its different methods?

Q.14 Write down four factors affecting mechanical properties.

Q.15 Explain classification of metals and non metals used in industry.

Q.16 What is the use of Levelling? Describe the working of Dumpy Level.

Q.17 What are causes and effects of corrosion?

Q.18 Give difference between potential energy and kinetic energy.

Q.19 List four major components of refrigerator with their functions.

Q.20 Describe different components of Hydrological Cycle.

Q.21 What is the importance of Renewable sources?

Q.22 Write any four applications of refrigeration and air conditioners in agriculture.

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