

### SECTION-D

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

Q.23 Describe Hydrological cycle and explain its components with the help of a diagram. (CO1)

Q.24 a) Write any four applications of refrigeration and air conditioners in agriculture. (CO4)

b) Write down four factors affecting mechanical properties. (CO3)

Q.25 What do you mean by Levelling? Explain Dumpy Level and its uses. (CO2)

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**2nd Sem / Agri.**

**Subject : Basics of Agriculture Engineering**

Time : 3 Hrs.

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 (CO3)

a) Porosity                      b) Structure

c) Density                        d) Stiffness

Q.2 The property of a material by which they can be drawn into wires (CO3)

a) Brittleness                    b) Malleability

c) Fatigue                        d) Ductility

Q.3 The device used for measuring pressure (CO5)

a) Viscometer                    b) Hydrometer

c) Manometer                    d) Barometer

- Q.4 The ratio of normal stress to normal strain is (CO3)  
 a) Young's Modulus    b) Hook's Law  
 c) Bulk Modulus        d) Poisson's Ratio
- Q.5 The artificial application of water to the field for raising crop (CO1)  
 a) Infiltration            b) Evaporation  
 c) Irrigation              d) Runoff
- Q.6 The line joining the points of equal elevation is called (CO2)  
 a) Contour                b) Contour interval  
 c) Levelling              d) Surveying

### SECTION-B

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

- Q.7 Define Weeding. (CO1)
- Q.8 Define Levelling. (CO2)
- Q.9 Name any two mechanical properties. (CO3)
- Q.10 Write any two methods of levelling. (CO2)
- Q.11 Write units of pressure. (CO5)
- Q.12 Write two factors affecting heat energy. (CO4)

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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 types of renewable sources of energy? (CO1)
- Q.14 State four types of field operations required for raising a crop. (CO1)
- Q.15 Describe any four mechanical properties of metals. (CO3)
- Q.16 What is the use of Contours? Enlist any two methods of contouring. (CO2)
- Q.17 Write down four causes and effects of corrosion? (CO3)
- Q.18 What are different methods of heat transfer? Explain with examples. (CO4)
- Q.19 Write any four properties of fluids. (CO5)
- Q.20 What do you mean by Ranging a Line. Explain in brief. (CO2)
- Q.21 What do you mean by Hydrological Cycle? Explain with diagram. (CO1)
- Q.22 Write any two differences between Uniform and Non-uniform flow. (CO5)

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