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182512

**1st Year / Textile Design**

**Subject : Applied Science**

Time : 3 Hrs. M.M. : 60

**SECTION-A**

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

Q.1 pH of an acid is

a) 7 b) < 7

c) > 7 d) none of these

Q.2 The number of moles dissolved per litre of the solution is called

a) Normality b) Molality

c) Molarity d) Formality

Q.3 Which is a good conductor

a) Wood b) Plastic

c) Nylon d) Copper

Q.4 Formula of kinetic Energy is

a) mgh b) $1/2mv^2$

c) mv d) none of these

Q.5 S.I. Unit of work is

a) Newton b) Joule

c) Watt d) Pascal

Q.6 Pressure in Fluids is equal to

a) hdg b) mgh

c) mv d) $mc^2$

## SECTION-B

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

Q.7 Give any two examples of strong Electrolyte.

Q.8 Define Solution.

Q.9 What is the effect on surface Tension with rise in Temperature?

Q.10 Write down Formula for Potential Energy?

Q.11 Define Power.

Q.12 S.I. Unit of Stress is_____

## SECTION-C

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

Q.13 Define Work. What do you mean by Positive, Negative and Zero work?



Q.14 Differentiate between Absolute and Atmospheric Pressure.

Q.15 Differentiate between Heat and Temperature on the basis of K.E. of Molecules.

Q.16 What do you mean by Surface Tension? Write down two applications of surface Tension.

Q.17 Define Viscosity. What is the effect on Viscosity with rise in Temperature?

Q.18 Explain Electroplating.

Q.19 Explain the process of Electrometallurgy.

Q.20 Explain Solute and Conductor with one example each.

Q.21 Drive the expression for the kinetic energy of a body.

Q.22 Define pH and Electro refining.

## SECTION-D

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

Q.23 Show that mechanical Energy for a freely falling body remain Constant.

Q.24 Explain different Scales of temperature and also find the relation between them?

Q.25 Explain Faraday's second law of electrolysis.