Q.28 What is the principle of Homogeneity of dimensions.

Q.29 State Newton's laws of motion.

Q.30 Define Positive work. Give examples of positive work done.

Q.31 What is energy? Explain different forms of energy.

Q.32 Define Stress and strain.

Q.33 Define young's modulus of elasticity (Y) Give mathematical expression of it.

Q.34 A drop of liquid is spherical in shape. Why?

Q.35 What are different scales of temperature? Write relationship between all of them.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 What are the different modulus of elasticity?

Q.37 Define and explain Faraday's laws of electrolysis.

Q.38 What are the Disadvantages of Hard water in Boiler?

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SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Symbol of Sodium is

a) Na b) S
c) Sn d) Sb

Q.2 Which of the following is an example of Hard water

a) Rain water b) Distilled water
c) Sea water d) None of the above

Q.3 Formula of faraday 2nd law of electrolysis is

a) $t = z.c.w.$ b) $w_1/w_2 = z_1/z_2$
c) $w = z.c.$ d) $w = z.p.t.$

Q.4 Unit of Molarity is

a) $g\ mol\ L^{-1}$ b) $g\ mol$
c) $g\ mol\ L$ d) $Mol\ L^{-1}$

Q.5 Which of the following is not a system of units

a) MKS b) SI
c) CGS d) FCS

Q.6 The suitable unit for mesuring distance of sun from earth is

a) metre b) lightyear

c) kilometre d) nautical mile

Q.7 Rocket works on the principle of conservation of

a) Mass b) energy

c) linear momentum d) angular momentum

Q.8 When a body is moving in a circle with uniform speed. Which of the following will be zero?

a) Acceleration b) Velocity

c) Force d) Work done on it

Q.9 Energy is the

a) Product of work an time

b) Product of work and displacement

c) Rate of doing work

d) Total work done by the body in certain time

Q.10 Pressure is defined as force per unit

a) length b) Volume

c) Mass d) Area

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 S.I. Stands for _____.

Q.12 1 joule = 10^5 erg. (True/False)

Q.13 Newton's 1st law is also called law of _____

Q.14 Define Force.

Q.15 Define work.

Q.16 The Capacity of a body to do work is called____.

Q.17 Define atom.

Q.18 Define solution.

Q.19 Give two examples of conductors.

Q.20 Purest form of water is _____.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Define Normality and Molarity.

Q.22 Write short note on electro refining.

Q.23 Calculate the Percentage Composition of sodium sulphate Na_2So_4.

[Atomic mass Na=23, S=32, O=16]

Q.24 Define soft water and Hard water. Give one example of each.

Q.25 Define gauge, absolute and atmospheric pressure.

Q.26 Derive the expression for the potential energy of a body.

Q.27 What are the qualities of drinking water?