NAT I Engineering

Sr	Questions	Answers Choice
1	The conductivity of a superconductor is:	A. Infinite B. Very large C. Very small D. Zero
2	The order of reactivity of halogens in aliphatic substitution reactions is.	A. $Br_2 > Cl_2 > F_2$ B. $Cl_2 > Br_2 > F_2$ C. **$Cl_2\ Cl_2 > Br_2$** D. $F_2 > Br_2 > Cl_2$
3	Which species represents the electrophile in aromatic nitrotation?	A. NO_2 B. $+NO_2$ C. No_3 D. NO_2-
4	If A and B are matrices such that AB = BA = i then	A. A and B are multiplicative inverse of each other B. A and B are additive inverses of each other C. A and B are singular matrices D. A and B are equal
5	The digestion of fats is the interaction is sided by	A. Diffusion B. Protection C. Pegtization D. Emulsification
6	Sin $(2x - \theta) =$	A. Cos $\square$ B. -Sin $\square$ C. - sin $\square$ D. -cos $\square$

7	With increasing principle quantum number , the energy difference between adjacent energy levels in H atom.	A. Decreases B. Increases C. Remain constant D. Decrease for low value of Z and increase for higher value of Z
8	A conducting wire is drawn to double its length. Final resistance of the material will be:	A. Double of the original one B. Half of the original one C. One-fourth of the original one D. Same as original one
9	The osmotic pressure of solution increases if	A. Temperature in decreased B. Solution constant in increase C. Number of solute molecules are increased D. Volume in increased
10	Cyclone collector is used for minimizing	A. Radioactive pollution B. Air pollution C. Noise pollution D. Water pollution
11	Which is not a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
12	Hess's law deals with	A. Changes in heat or reaction B. Rate of reaction C. Equilibrium constnat D. Influence of pressure on volume of a gas
13	The equilibrium constant in a reversible chemical reaction at a given temperature.	A. Depends on the initial concentration of the reactants. B. Depends on the concentration of one of the products at equilibrium C. Does not depend on the initial concentrations of reactants D. Is not characteristic of the reaction
14	The number of unpaired electrons in the p-subshell of oxygen atom.	A. 1 B. 2 C. 3 D. 4
15	Bernoulli's equation is based upoon law of conservation:	A. Mass B. Momentum C. Energy D. None of these
16	The distance between node and anti-node is:	A. λ B. $\lambda/2$ C. $\lambda/4$ D. 2λ
17	With the propagation of a longitudinal wave through a material medium, the quantities transmitted in the propagation direction are	A. Energy , momentum and mass B. Energy C. Energy and mass D. Energy and linear momentum
18	The pendulum clock set to give correct time in Karachi is taken to Quetta. It would give correct time if:	A. The mass of the pendulum is increased B. The mass of the pendulum is decreased C. The length of the pendulum is increased D. The length of the pendulum is decreased
19	One of the roots of the equation $2x^2 + 3x + n = 0$ is the reciprocal of the other , then n =	A. 1 B. 2 C. 3 D. 4
20	The molal elevation constant is the ratio of the elevation in boiling point to .	A. Molarity B. Molality C. Mole fraction of solute D. Mole fraction of solvent