Q.27 Give magnifying power of Galilean telescopes.

Q.28 Explain prevost theory of heat exchange.

Q.29 Explain surface and cubical expansion.

Q.30 Explain coulomb's law.

Q.31 Define magnetic field. Give its S.I units.

Q.32 Explain Newton laws of motion.

Q.33 Define power. Give its units.

Q.34 Explain the relation b/w Torque and Angular momentum.

Q.35 Explain principle of momentum conservation.

SECTION-D

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

Q.36 Explain SHM. Derive formula for displacement, velocity and acceleration.

Q.37 Explain moving coil galvanometer. convert

a) Galvanometer into ammeter.

b) Galvanometer into voltmeter.

Q.38 a) Define simple and compound microscopes.

b) Calculate magnifying power of compound Microscope.

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Subject:- Applied Physics

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Dimensional formula of stress is same as that of

a) Power b) Force

c) Work d) Pressure

Q.2 Normal reactions occurs at an angle of_____

a) 30 b) 90

c) 120 d) 180

Q.3 Standard reverberation time is given by

a) kepler's law b) Sabines law

c) kirchoff's law d) Gauss law

Q.4 Echo is due to _____

a) Interference b) Reflection

c) Diffraction d) Refraction

Q.5 Velocity of sound wave in vacuum is

a) 220 m / sec b) 0

c) 332 m / sec d) 360m / sec

Q.6 S. I. unit of heat is

a) kelvin b) kgm.sec

c) joule d) None of these

Q.7 How many significant fig. are in 0.003026.

a) one b) three

c) two d) four

Q.8 In SHM acceleration is always towards.

a) mean position b) displacement

c) extreme position d) None of above

Q.9 The formula for potential energy is

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

c) mv^2 d) 2mgh

Q.10 Newton second law is defined as

a) Force b) Work

c) Power d) Energy

SECTION-B

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

Q.11 Dimensional formula for velocity is_____.

Q.12 Resistance of wire is inversely proportional to _____.

Q.13 S.I unit of torque_____.

Q.14 A force equal and opposite to centripetal force is_____.

Q.15 S.I unit of electric intensity is_____.

Q.16 Wave with frequency more than 20KHz is_____.

Q.17 Direct transfer of heat form source to receiver is_____.

Q.18 Sound wave is_____ wave

Q.19 Charge is_____ quantity.

Q.20 The charge on electron is_____.

SECTION-C

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

Q.21 Explain free forced and resonant vibration.

Q.22 Define potential energy. Derive formula.

Q.23 Define friction, Give its applications.

Q.24 Calculate kinetic Energy of rolling body.

Q.25 Define Dia, para and ferromagnetic substances.

Q.26 Explain resistivity. Give its variation with temperature.