

- Q.31 Define echo and reverberation.
 Q.32 Explain kirchoffs law and stefans law of radiation.
 Q.33 Define thermal stress. Give its application .
 Q.34 Define centripetal and centrifugal force.
 Q.35 Calculate power for doing 100 joule of work in 10 sec.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 10 = 20)$

- Q.36 Explain grouping of capacitors in series and parallel
 Q.37 a) Explain Kirchoff's law.
 b) Explain wheat stone bridge principle
 Q.38 Explain moving coil galvanometer. How do we convert Galvanometer into ammeter.

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**1st Year / Branch : Advance Diploma
in Tool and Die Making
Subject:- Applied Physics**

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory $(10 \times 1 = 10)$

- Q.1 Formula for ohms law
 a) $V=IR$ b) $p=1/F$
 c) $C=q/v$ d) None of above
 Q.2 Echo is caused due to
 a) Interference b) Reflection
 c) Diffraction d) Refraction
 Q.3 Forces is a _____ Quantity
 a) Scalar b) Vector
 c) Both of these d) None of these
 Q.4 Velocity of sound waves in vacuum is
 a) 220m/sec b) 0
 c) 332 m/sec d) 360m/sec
 Q.5 S.I. unit of charge is
 a) c/m b) c
 c) cm d) c/m

(60)

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- Q.6 S.I. unit of power is
 a) volt b) Ampere
 c) Watt d) Coulomb
- Q.7 Normal Reaction act at an angle _____
 a) 30 b) 120
 c) 90 d) 180
- Q.8 Optical fibre is based upon
 a) Total internal reflection
 b) Refraction
 c) Reflection
 d) None of above
- Q.9 Telescope is used for
 a) Viewing small object
 b) Measuring Pressure
 c) Viewing far off object
 d) None of these
- Q.10 Unit of frequency is
 a) Sec b) Meter
 c) Hz d) None of these

SECTION-B

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

- Q.11 Full form of FPS is _____
 Q.12 S.I unit of pressure is _____

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- Q.13 Formula for strain is _____
 Q.14 Good emitter are _____ absorber
 Q.15 Sum of kinetic energy and potential is _____
 Q.16 1 Horse power _____ watts
 Q.17 Ultrasonic have frequency greater than _____
 Q.18 Longitudinal wave motion is an example of _____ wave (sound/light)
 Q.19 Which metal have more permeability (Diamagnetic /Ferromagnetic)
 Q.20 Charge on an electron is _____ coulombs

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Define Kinetic energy. Derive its formula.
 Q.22 Explain conservation of angular momentum.
 Q.23 Define friction, on what factor friction depends.
 Q.24 Define Pyrometer. Give its range.
 Q.25 Give law of reflection and refraction.
 Q.26 Explain coulombs law.
 Q.27 Define capacitance and its units.
 Q.28 Explain ohms law and give its formula
 Q.29 Define magnetic field. Give its unit.
 Q.30 Calculate force on a moving charge in a magnetic field.

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