

Section-A

Multiple Choice Questions (MCQ's)

Q.1: Choose the correct answer for each from the given options:

- (i) Ibn-ul-Haitham contributed toward _____ Physics.
 (a) Nuclear (b) Oceanographic (c) Optical (d) Thermal
- (ii) One meter is equal to _____
 (a) 10^9m (b) 10^6m (c) 10^3m (d) 10^0m
- (iii) Rate of displacement with respect to time is known as _____
 (a) Speed (b) Velocity (c) Acceleration
 (d) Uniform acceleration
- (iv) The unit of coefficient of Friction is _____
 (a) Newton (b) Kilogram (c) Meter (d) None
- (v) We use a _____ to disperse white light into different colours.
 (a) Convex lense (b) Prism (c) convert mirror
 (d) Concave mirror
- (vi) The turning effect of a force about an axis is _____
 (a) Force (b) Rotation (c) Torque (d) Momentum
- (vii) Power is defined as _____
 (a) Rate of change of position (b) Rate of change of force
 (c) Time rate of doing work (d) None of these
- (viii) Which of the follwing belongs to thid kind of lever.
 (a) Pair of scissor (b) Forcep (c) Door (d) None
- (ix) The number of prisms in periscopes is _____
 (a) One (b) Two (c) Three (d) Four
- (x) A motion which repeats itself in equal interwalls of time is called _____.
 (a) Loudness (b) Amplitude (c) Time period (d) Frequency
- (xi) $1\text{hp} =$ _____ watts.
 (a) 746 (b) 644 (c) 580 (d) 640
- (xii) If and are rectangular components of force the $\tan =$ _____
 (a) (b) (c) (d)
- (xiii) Gravitational accleration acts on bodies vertically _____.
 (a) upward (b) Downward (c) Inwards (d) None of these
- (xiv) The relations between electric current and the magnetic field was dicoverd.
 (a) Newton (b) Faraday (c) Fleming (d) Oersted
- (xv) Archimede's principle is applied to determined.
 (a) Specific heat (b) Specific gravity (c) Specific resistance
 (d) None of these

- (xvi) In a fission process which particle causes a uranium-235 nucleus to split.
(a) Alpha (b) Gamma Rays (c) Neutron (d) Proton
- (xvii) The pupil of eye control is _____.
(a) The focal length of eye (b) The range of accommodation of eye
(c) The amount of light reaching the eye (d) The distance of distinct vision

Section-B

Note: Answer any EIGHT of the following questions. Each question carries 05 marks.

- Q.2: Explain the word Physics and define what is Physics?
- Q.3: Describe briefly the main causes of Friction.
- Q.4: What is the difference between real and virtual image?
- Q.5: How many conditions of Equilibrium? Briefly explain?
- Q.6: What is Law of Gravitation?
- Q.7: How is Rainbow formed?
- Q.8: To what kind of lever the following machines belong:
Door- Human arm- forceps- Sea saw- Upper and lower jaws of mouth.
- Q.9: An empty truck weight 4000 N its engine can produce a maximum acceleration of 1 ms^{-2} . If the truck is loaded with 2000 N. Find the maximum acceleration the engine can produce.
- Q.10: Derive the equation: $2aS = V_f^2 - V_i^2$
- Q.11: Define reflection of light.
- Q.12: Define electric current and write its equation.
- Q.13: What are the defects of vision? Explain only one.

Section-C

Note: Answer any TWO of the following questions. Each question carries 14(7+7) marks.

- Q.14(a) How is sound produced and what is the range of frequency of audible sound?
(b) The potential difference between two terminals is about 220 volts and the current flow is 2 amperes, Find the resistance.
- Q.15(a): Describe the anomalous expansion of water.
(b) Find the acceleration of a body whose velocity increases from 11 ms^{-1} to 33 ms^{-1} in 10 seconds.
- Q.16: Write notes on any TWO of the following:
Mass of Earth Archimedes's Principles Wave Motion