S.S.C. PART-I (9th CLASS) (SESSION 2007-09 & 2008-2010)

PHYSICS (GROUP-I) (گروپ - پہلا)

TIME ALLOWED: 1.45 Hours

MAXIMUM MARKS: 48

SUBJECTIVE حصہ انشائیہ

NOTE: - Write short answers of any Fifteen questions of Section-I and attempt any two questions from Section-II. Write same question number and its part number in answer book, as given in the question paper.

SECTION-I حصہ اول

2. Write short answers to any Fifteen questions out of the following. 30 = 2 x 15

(i) Write down the names of two books of Alberuni

(ii) Define two branches of Physics.

(iii) What do you mean by Metre? Also explain it.

(iv) Write down 0.0045 and 145.0 into Scientific Notation.

(v) Differentiate between Speed and Velocity.

(vi) Define Mechanics and write down its parts

(vii) Differentiate between Rolling and Sliding friction

(viii) Differentiate between Mass and Weight

(ix) What is Head to Tail rule of the addition of Vectors?

(x) Define Sine and Cosine

(xi) What are Parallel forces? Define Unlike parallel forces

(xii) Write down the difference between Stable and Unstable equilibrium

(xiii) Define Centripetal force. Also write its equation.

(xiv) Define Centrifugal force. Also give an example

(xv) Define Work and write its unit.

(xvi) Write down two types of Potential energy

(xvii) Describe Mechanical Advantage of Lever

(xviii) Write down two properties of fluids at rest condition

(xix) Define principle of Archimedes and also give an example

(xx) Define Viscosity. Also describe it briefly.

(xxi) Define Latent heat. Also write Latent heat of fusion of ice

(xxii) Write down the name of two methods of transmission of heat.

SECTION-II حصہ دوم

NOTE: - Attempt any two ques ns.

3. (a) Define resolution of Vectors. A vector $\vec{F}$ is making an angle θ w... the x-axis. Find its horizontal and vertical components. 4

(b) If a ball is thrown vertically upward with a velocity of $20ms^{-1}$, then determine: (i) The maximum height which ball will attain (ii) Time to reach maximum height 5

4. (a) State the Law of Gravitation 1

(b) Derive the formula for Law of Gravitation 3

(c) A mass of 20g is hanging at 15 cm point mark on a metre rod of uniform thickness. The metre rod is horizontally balanced on wedge placed at the 45 Cm point mark. Find out the weight of the metre rod. 5

5. (a) Explain the method of finding specific heat of a solid body. 4

(b) The area of cross section of the small and large pistons of a hydraulic press are respectively $10\ Cm^2$, $100\ Cm^2$. What force will be exerted on the small piston to lift a car of weight 4000 N? 5

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