



PHYSICS

BOOKS S CHAND PHYSICS (HINGLISH)

MODEL TEST PAPER 1

Section A

1. Explain the meaning of the following equation:

$$p = m \times v$$

where symbols have their usual meanings.



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2. The mass of Earth is 6×10^{24} kg and that of moon is 7.4×10^{22} kg. if the distance between the earth and the moon is 3.84×10^5 km, calculate the force exerted by earth on the moon. Given $G = 6.7 \times 10^{11} \text{ Nm}^2 / \text{kg}^2$.



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3. State whether the following objects possess kinetic energy, potential energy, or both :

(a) A man climbing a hill

(b) A flying aeroplane

(c) A bird running on the ground

(d) A ceiling fan in the off position

(e) A stretched spring lying on the ground.



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4. A scooterist covers a distance of 3 kilometres in 5 minutes. Calculate his speed in:

(a) centimetres per second (cm/s)

(b) metres per second (m/s)

(c) kilometres per hour (km/h)



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5. (a) When do we say that work is done ?

Write the formula for the work done by a body in moving up against gravity. Give the meaning of each symbol which occurs in it.

(b) How much work is done when a force of 2

N moves a body through a distance of 10 cm in the direction of force?



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Section B

1. A body is thrown vertically upwards ? Its velocity goes on decreasing. What happens to its kinetic energy as its velocity becomes zero ?



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2. How does the atmosphere act as a blanket?



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