



PHYSICS

BOOKS - KUMAR PRAKASHAN KENDRA

PHYSICS (GUJRATI ENGLISH)

QUESTION PAPER 01

Section A

1. A particle has an initial velocity $(12\hat{i} + 10\hat{j})\text{ms}^{-1}$ and an acceleration of

$(0.5\hat{i} + 0.6\hat{j})ms^{-2}$. Its speed after 20s is



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2. Wind velocity is due to difference of



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3. Match the following property :

Column I	Column II
1. Force	a. ms^{-2}
2. Momentum	b. kg ms^{-2}
	c. $\text{kg m}^2\text{s}^{-1}$
	d. kg ms^{-1}



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4. The uniform circular motion of an object is a constant accelerated motion, state whether this statement is true or false .



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5. Wind velocity is due to difference of



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6. Match the following property :

Column I	Column II
1. Force	a. ms^{-2}
2. Momentum	b. kg ms^{-2}
	c. $\text{kg m}^2\text{s}^{-1}$
	d. kg ms^{-1}



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7. The uniform circular motion of an object is a constant accelerated motion, state whether this statement is true or false .



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Section B

1. Safety (seat) belts are used to prevent accident while driving . Why ?



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2. State Newton's third law of motion and explain giving an example .



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3. Maganbhai completes a round , around the boundary of a square field of length 20 meter , in 80 seconds. What would be his displacement from the origin position after 4 minute and 40 second ?



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4. Safety (seat) belts are used to prevent accident while driving . Why ?



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6. Maganbhai completes a round , around the boundary of a square field of length 20 meter , in 80 seconds. What would be his displacement from the origin position after 4 minute and 40 second ?



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Section D

1. The mass of a car is 1200 kg. It comes to rest due to retardation of $2ms^{-2}$.

What would be the force (frictional force) acting between the car and road ?



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2. Define Inertia . Clarify the term Inertia giving practical example in daily life .



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3. Derive the equations of motion by using Velocity \rightarrow Time graph.

$$(a) v = u + at \quad (b) s = ut + \frac{1}{2}at^2$$

Where , v = Final velocity of an object .

u = Initial velocity of an object .

a = Acceleration of an object .

t = Time duration .



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4. The mass of a car is 1200 kg. It comes to rest due to retardation of $2ms^{-2}$.

What would be the force (frictional force) acting between the car and road ?



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5. Define Interia . Clarify the term Interia giving practical example in daily life .



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