

Test Jot Series

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Student Name:			Class:	9th
Paper Type:	Chapter#3		Subject:	Physics (SNC)
Paper Time:	1 Hour		Maximum Marks:	30

Q1. Choose the correct option.

(6X1=6)

1. An object with a mass of 5kg moves at constant velocity of 10ms^{-1} . A constant force then acts for 5 seconds on the objects and gives it a velocity of 2ms^{-1} in the opposite direction. The force acting on the object is:

(A) 5N	(B) -10N	(C) -12N	(D) -15N
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2. What type of force is magnetic force?

(A) Contact force	(B) Non-contact force	(C) Gravitational force	(D) Frictional force
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3. Which fundamental force is responsible for holding atoms together?

(A) Gravity	(B) Electromagnetism	(C) Strong nuclear force	(D) Weak nuclear force
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4. Which fundamental force is responsible for the beta decay of radioactive materials?

(A) Gravity	(B) Electromagnetism	(C) Strong nuclear force	(D) Weak nuclear force
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5. What is the normal force in a free body diagram?

(A) A contact force	(B) A non-contact force	(C) A frictional force	(D) A tension force
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6. What type of force is required to change the motion of an object?

(A) Contact force	(B) Non-contact force	(C) External force	(D) Internal force
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Q2. Write down short answers of following questions.

(7X2=14)

[i] Give 5 examples of contact forces.	[ii] Why has not Newton's first law been proved on the Earth?
[iii] Prove that $F=ma$	[iv] What is an electronic balance?
[v] What is the effect of friction on energy?	[vi] What happened to momentum when velocity increases?
[vii] What is the mathematical representation of conservation of momentum?	

Q3. Write detailed answers of the following questions.(Answer any 2)

(2X5=10)

1. Explain the concept of changed particle and describe the electromagnetism forces.
2. What force is required to increase the velocity of 800kg car form 10ms^{-1} to 30ms^{-1} in 10 seconds? (Numerical Problem)
3. A 10kg block moves a frictionless horizontal surface with acceleration of 2ms^{-2} . What is the force acting an the block?