

ZONAL TALENT OLYMPIAD 2024
Olympiad Question Paper
13-10-2024

Section A: Multiple Select Questions

1. A neutron exert a force on a proton which is
 - (a) gravitaional
 - (b) electrostatic
 - (c) nuclear
 - (d) weak
2. An object follows a curved path.The following quntities may reamin constant during the motion
 - (a) speed
 - (b) velocity
 - (c) acceleration
 - (d) magnitude of acceleration
3. The work done by all the forces(external and internal) on a system equals the change in
 - (a) total energy
 - (b) kinetic energy
 - (c) potential energy
 - (d) none of these
4. Electrostatic force is
 - (a) attractive force
 - (b) repulsive force
 - (c) both a and b
 - (d) none of these
5. What type of force is electrostatics force
 - (a) conservative force
 - (b) non conservative force
 - (c) attractive force
 - (d) repulsive force

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1. Which of the following parameters is the same for molecules of all gases at a given temperature?
 - (a) Mass
 - (b) Speed
 - (c) Momentum
 - (d) Kinetic energy
2. Current is a?
 - (a) Vector quantity
 - (b) Scalar quantity
 - (c) Both a and b
 - (d) None of the above
3. Mass and Weight are same quantity?
 - (a) yes
 - (b) no
 - (c) almost same
 - (d) none of these
4. A man travels in a circular path, and completes 5 cycle.What will be his average displacement
 - (a) 5 times of the perimeter of the circle
 - (b) Zero
 - (c) Can not be determine without radius
 - (d) None of these
5. A ball rolling on a smooth surface
 - (a) ball will stop
 - (b) ball will not stop
 - (c) can not say
 - (d) none of these

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