

**Physics Q&A – 25<sup>th</sup> July 2017:**

Q1. A moving body on Earth ordinarily comes to rest by itself because of the-

- (a) Law of inertia
- (b) Forces of friction
- (c) Conservation of momentum
- (d) Gravity

Ans: B

Q2. An object moving around in a circle is moving with a-

- (a) Uniform velocity
- (b) Uniform speed
- (c) Variable velocity
- (d) Variable speed

Ans: C

Q3. As the train starts moving, a man sitting inside leans backwards because of-

- (a) Inertia of rest
- (b) Inertia of motion
- (c) Moment of inertia
- (d) Conservation of mass

Ans: A

Q4. Choose the only scalar quantity from the following:

- (a) Energy
- (b) Torque
- (c) Momentum
- (d) Force

Ans: A

Q5. Choose the only vector quantity from the following:

- (a) Energy
- (b) Length
- (c) Density
- (d) Torque

Ans: D

Q6. Potential energy and kinetic energy are types of-

- (a) Electrical energy
- (b) Magnetic energy
- (c) Thermal energy
- (d) Mechanical energy

Ans: D

Q7. When milk is churned, the cream from it is separated due to-

- (a) Gravitational force

- (b) Centrifugal force
- (c) Frictional force
- (d) Heat

Ans: B

Q8. Which of the following statement is incorrect?

- (a) The mass of a body is not the same as its weight
- (b) Mass is a measure of quantity of matter whereas weight is a force
- (c) Mass of a body varies from place to place but its weight remains constant
- (d) In the MKS system, mass is expressed in kilogram and weight in newton

Ans: C

Q9. The horse pulls the cart because of-

- (a) The force that the horse exerts on the ground
- (b) The force that the horse exerts on the cart
- (c) The force that the ground exerts on the horse
- (d) The force that the cart exerts on the horse

Ans: C

Q10. A rocket works on the principle of conservation of-

- (a) Mass
- (b) Energy
- (c) Linear momentum
- (d) Angular momentum

Ans: C

Q11. The Leaning Tower of Pisa does not fall because-

- (a) It is tapered at the top
- (b) It covers a large base area
- (c) Its centre of gravity remains at the lowest position
- (d) The vertical line through the centre of gravity of the tower falls within its base

Ans: D

Q12. When a ship floats on water-

- (a) It displaces no water
- (b) The mass of water displaced is more than the mass of the ship
- (c) The mass of water displaced is equal to the mass of the ship
- (d) The mass of water displaced is less than the mass of the ship

Ans: C

Q13. A fresh egg sinks in pure water but floats in salty water. This is because-

- (a) Saline water is denser than pure water
- (b) Saline water is lighter than pure water
- (c) The viscosity of saline water is lower than that of pure water
- (d) The surface tension of saline water is lower than that of pure water

Ans: A

Q14. When a body falls freely towards the earth, then its total energy-

- (a) increases
- (b) decreases
- (c) remains constant
- (d) first increases and then decreases

Ans: C

Q15. The oil in the wick of an oil lamp rises up due to-

- (a) Pressure difference
- (b) Capillary action
- (c) Low viscosity of oil
- (d) Gravitational force

Ans: B

