Force and Laws of Motion Questions for RRB NTPC

Instructions
For the following questions answer them individually

Question 1

Which of the following physical quantities changes or tends to change the state of rest or of uniform motion of a body in a straight line?

A Force

B Mass

C Momentum

D Inertia

Answer: A

Question 2

In which of the following examples will an athlete have maximum accelerated motion?

A Running on an octagonal track

B Running on a hexagonal track

C Running on a rectangular track

D Running on a circular track

Answer: D

Question 3

The second equation of motion gives the relation between:

A Velocity and time

B Position and velocity

C Position and time

D Velocity and acceleration

Answer: C

Question 4

Whena force resists the relative motion between two surfaces, it is called .....

A Resistance

B Convection

C Friction

D Induction

Answer: C

Question 5

On applying a constant force to a body, it moves with uniform_:

A Momentum

B Speed

C Velocity

D Acceleration

Answer: D

Question 6

Newton's second law of motion .....

A is also called as law of conservation of momentum.

B is also called as law of inertia

C describes the relationship between the forces on two interacting objects.

D explains about change in momentum.

Answer: D

Question 7

Name the external force that acts radically inward during the circular motion of a body.

A Centripetal force

B Centrifnal force

C Gravitational force

D Inertial force

Answer: A

Question 8

Energy possessed by a body due to its motion is known by what name?

A Kinesthetic energy

B Final energy

C Kinetic energy

D Potential energy

Answer: C

Question 9

If the force applied on the object is in the direction opposite to the direction of motion, the speed of the object _____.

A increases

B stops

C decreases

D no effect

Answer: C

Question 10

If a body slides over a surface, the force resisting the motion between them is called .....

A Centripetal force

B Friction

C Centrifugal force

D Inertia

Answer: B

Question 11

Motion of a train is an example of which kind of motion?

A Rotatory motion

B Spin motion

C Projectile motion

D Translatory motion

Answer: D

Question 12

A cannon ball is fired. The motion of this ball is an example of _____.

A Straight line motion

B projectile motion

C Hyperbolic motion

D horizontal motion

Answer: B

Question 13

Which force helps swimmers float in water?

A Muscular force

B Magnetic force

C Buoyant force

D Frictional force

Answer: C

Question 14

According to _____, pressure is equal to the force divided by the area on which it acts.

A Hooke's Law

B Newton's Law

C Pascal's Law

D Stefan-Boltzmann Law

Answer: C

Question 15

Calculate the work done by the force of gravity when satellite moves in an orbit of radius 40,000 km around the earth.

A 8,000 J

B 4,00,000 J

C 0 J

D 4,000 J

Answer: C