

Class _____

Marks : _____

Subject _____

Time : _____

Name: _____

Roll No. : _____

Division : _____

Question 1

When an object is travelling at a constant speed, the net force on the object is:

- A. maximum
- B. minimum
- C. zero
- D. May be maximum or minimum depending on the speed

Question 2

Inertia is the property by virtue of which the body is not able to change by itself:

- A. The state of uniform motion only.
- B. The steady state of rest only.
- C. The state of uniform motion and the state of rest.
- D. The direction of motion.

Question 3

Which law is applicable to the following example: The rider of a running horse falls forward when the horse suddenly stops.

- A. Newton's first law of motion
- B. Newton's second law of motion
- C. Newton's third law of motion
- D. All the above.

Question 4

A frame of reference in which Newton's first law is valid refers to _____.

- A. fixed frame of reference.
- B. inertial frame of reference.
- C. non-inertial frame of reference.
- D. accelerated frame of reference.

Question 5

If a body is moving with a constant velocity along a straight line path, then the force is not required to _____.

- A. increase its speed
- B. decrease its momentum
- C. change its direction
- D. keep it moving with uniform velocity

Question 6

A frame in which Newton's first law is not valid refers to _____.

- A. inertial frame
- B. non-inertial frame
- C. accelerated frame
- D. fixed frame

Question 7

When a bus suddenly takes a bend, the passengers are thrown in the outward direction, due to _____.

- A. inertia of motion
- B. speed of motion
- C. acceleration of motion
- D. bad turning style of a driver

Question 8

The acceleration produced in a body of given mass is directly proportional to the _____.

- A. Shape of the body
- B. Size of the body
- C. Force applied on the body.
- D. Material of the body.

Question 9

The S.I. unit of force is _____.

- A. dyne
- B. newton
- C. g cm s^{-2}
- D. g cm s^{-1}

Question 10

What is the relationship between force (F), mass (m) and acceleration (a)?

- A. $F = m \div a$
- B. $F = m + a$
- C. $F = m \times a$
- D. $F = m - a$

Question 11

What is the C.G.S. unit of force?

- A. newton
- B. dyne
- C. joule
- D. erg

Question 12

An undesirable production of heat due to friction would be _____.

- A. Applying and massaging balm to reduce pain
- B. Rubbing of our palms together, during the winter season.
- C. The striking of a match with the match-box
- D. Heat generated when a machine runs continuously

Question 13

Can frictional force stop an object?

- A. No, friction only slows an object
- B. Yes, when it overcomes the applied force

Question 14

If the density of gold in SI system is 2500 kg/m^3 , what will be its density in CGS system?

A. 2.5 g/cm^3

B. 2.5 kg/m^3

C. 0.25 g/cm^3

D. 0.25 kg/m^3

Question 15

Which instrument is usually used to measure the mass of a solid?

A. Physical balance

B. Eureka can

C. Beaker

Question 16

What is the formula for calculating the volume of a regular body?

A. $\text{Area} \div \text{Height}$

B. $\text{Height} + \text{Area}$

C. $\text{Area} \times \text{Height}$

D. $\text{Area} - \text{Height}$

Question 17

Which instrument is used to measure the volume of an irregular solid?

A. Measuring scale

B. Measuring tape

C. Measuring Cylinder

Question 18

Which liquid has the highest density?

A. Water

B. Alcohol

C. Mercury