Force and Pressure

Question 1.
When a given force is applied on larger area of contact the pressure exerted by it:
(a) increases
(b) decreases
(c) does not change
(d) none of these

▼ Answer

(b) decreases
When a given force is applied on larger area of contact than the pressure exerted by it decreases.

Question 2.
The pressure exerted by a liquid:
(a) decreases with depth
(b) does not change with depth
(c) increases with depth
(d) is different in different directions at he same depth

▼ Answer

(c) increases with depth
The pressure exerted by a liquid increases with depth.

Question 3.
A force can:
(a) change the state of motion
(b) change the shape of an object
(c) change the direction of motion of an object
(d) all of these

▼ Answer

(d) all of these
A force can change the state of motion, shape of an object arid the direction of motion of an object.

Question 4.
Force is:
(a) only push on an object
(b) only pull on an object
(c) either push or pull on an object
(d) none of these

▼ Answer

(c) either push or pull on an object
Force is either push or pull on an object.

Question 5.
Liquids exert pressure on the walls of the container:
(a) yes
(b) no
(c) can’t say
(d) none of these

▼ Answer

(a) yes
Yes, liquids exert pressure on the walls of the container.

Question 6.
The pressure exerted by the air is known as:
(a) air pressure
(b) gas pressure
(c) atmospheric pressure
(d) none of these

▼ Answer

(c) atmospheric pressure
Atmospheric pressure is pressure exerted by the air.

Question 7.
When a rubber sucker is pressed on a plane surface than it sticks to the surface because of :
(a) the pressure exerted by us
(b) the air sucked by rubber
(c) the pressure of atmosphere acting on it
(d) none of these

▼ Answer

(c) the pressure of atmosphere acting on it
A rubber sucker sticks to the plane surface because of the pressure of atmosphere acting on it.

Question 8.
The instrument used of measure atmospheric pressure is:
(a) mercury barometer
(b) manometer

(c) pressure meter
(d) none of these

▼ Answer

(a) mercury barometer
Mercury barometer is the instrument used to measure atmospheric pressure.

Question 9.
The force exerted on a normal human being due to atmospheric pressure is:
(a) 2×10^4N
(b) 2×10^5N
(c) 2×10^6N
(d) none of these

▼ Answer

Answer: (a)
2×10^5 N force is exerted on a normal human being due to atmospheric

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Question 10.
The weight of air that every square centimetre of any surface carries is:
(a) 1 kg
(b) 10 kg
(c) 1 gm
(d) 100 kg

▼ Answer

Answer: (a)
1 kg is the weight of air that every square centimetre of any surface carries.

Question 11.
When bicycle tube is punctured than:
(a) it bursts
(b) air escapes very fast
(c) air escapes slowly
(d) none of these

▼ Answer

(c) air escapes slowly
When bicycle tube is punctured than air escapes slowly.

Question 12.
We are not crushed under the weight of air because:
(a) air has no weight

(b) the pressure inside our bodies is equal to atmospheric pressure
(c) the pressure inside our bodies is more than atmospheric pressure
(d) none of these

▼ Answer

(b) the pressure inside our bodies is equal to atmospheric pressure
We are not crushed under the weight of air because the pressure inside our bodies is more than atmospheric pressure.

Question 13.
The non-contact force is:
(a) magnetic force
(b) electrostatic force
(c) force of gravity
(d) all of these

▼ Answer

(d) all of these
Magnetic force, electrostatic force, force of gravity, all are non-contact forces.

Question 14.
A boat comes to rest if we stop rowing it due to:
(a) gravitation force
(b) force of friction
(c) muscular force
(d) none of these

▼ Answer

(b) force of friction
A boat comes to rest if we stop rowing it due to force of friction.

Question 15.
A football moves when we:
(a)pushit
(b) hit it
(c) kick it
(d) all of these

▼ Answer

(d) all of these
A football moves when we push it, hit it had kick it.

Question 16.
Which of the following is contact force:

(a) force of gravity
(b) magnetic force
(c) force of friction
(d) electrostatic force

▼ Answer

(c) force of friction
Force of friction is contact force.

Question 17.
The non-contact force is:
(a) force of gravity
(b) muscular force
(c) force of friction
(d) none of these

▼ Answer

(a) force of gravity
Force of gravity is non-contact force.

Question 18.
Pressure =
(a) force/area
(b) force x area
(c) area/force
(d) none of these

▼ Answer

(a) force/area
Pressure is force/area.

Question 19.
Knives, needles, saws are made sharp or pointed to:
(a) decrease pressure
(b) can’t say
(c) increase pressure
(d) none of these

▼ Answer

(c) increase pressure
Knives, needles, saws are made sharp or pointed to increase pressure because decreasing area of contact increases pressure.

Question 20.
The pressure with the height of the liquid column.
(a) increase
(b) remains same
(c) decrease
(d) none of these

▼ Answer

(a) increase
The pressure increases with the height of the liquid column.

Question 21.
By decreasing the contact area the pressure:
(a) is decreased
(b) remain same
(c) is increased
(d) none of these

▼ Answer

(c) is increased
By decreasing the contact area the pressure is increased.

Question 22.
The unit of pressure is:
(a) Newton
(b) Newton/metres
(c) Newton metres
(d) Newton/metre

▼ Answer

(b) Newton/metres
The unit of pressure is Newton/metres.

Question 23.
The instrument used to measure pressure of liquids is:
(a) barometer
(b) manometer
(c) pressure meter
(d) none of these

▼ Answer

(b) manometer
The instrument used to measure pressure of liquids is manometer.

Question 24.
When we press the bulb of a dropper with its nozzle kept in water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, water gets filled in the dropper. The rise of water in the dropper is due to:
(a) pressure of water
(b) gravity of the earth
(c) shape of rubber bulb
(d) atmospheric pressure

▼ Answer

(d) atmospheric pressure
Atmospheric pressure.

Question 25.
Pushing a rock from a hill top is an example of:
(a) muscular force
(b) magnetic force
(c) frictional force
(d) electrostatic force

▼ Answer

(a) muscular force
Pushing a rock from a hill top is an example of muscular force.

Question 26.
Under which condition can a moving object charge its direction:
(a) by reducing friction
(b) by increasing friction
(c) by applying force
(d) by not applying force

▼ Answer

(c) by applying force
By applying force, a moving object can change its direction.

Question 27.
A stone thrown with a catapult (Gulal) falls back on the ground because :
(a) the muscles apply force
(b) the stone applies force
(c) the earth exerts force
(d) the catapult exerts force

▼ Answer

(c) the earth exerts force
A stone thrown with a catapult (Gulal) falls back on the ground because the earth exerts force on it

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Question 28.
The SI unit of force is:
(a) kilogram
(b) gram
(c) newton
(d) none of these

▼ Answer

(c) newton
The SI unit of force is Newton.

Question 29.
A man walking on the street slips on a banana skin because:
(a) it is sticky
(b) his foot crushes it
(c) at that point there is very little friction
(d) all of these.

▼ Answer

(c) at that point there is very little friction
A man walking on the street slips on a banana skin because at that point there is very little friction between his shoe and the ground.

Question 30.
between his shoe and the ground In desert areas, a camel can walk very easily as compared to horse because it has:
(a) lesser weight
(b) broader feet
(c) smaller feet
(d) heavier body

▼ Answer

(b) broader feet
Broader feet exerts lesser pressure therefore in desert areas, a camel can walk very easily as compared to horse.

Match the Column-A with Column-B:

Question 1.

Column-A	Column-B

(a) The braked of a bicycle are applied to bring it to rest.	(i) Force changes the direction of a moving body.
(b) The brakes of a bicycle are applied in a crowded area.	(ii) Force makes a body move faster.
(c) Step on to the pedal of a standing bicycle.	(iii) Force stops the motion of a body.
(d) Pedalling towards the finishing line in a cycle race.	(iv) Force slows down a moving body.
(e) Turning the handle-bar of a cycle while taking turns	(v) Force starts the movement in a at.

▼ Answer

Column-A	Column-B
(a) The braked of a bicycle are applied to bring it to rest.	(iii) Force stops the motion of a body.
(b) The brakes of a bicycle are applied in a crowded area.	(iv) Force slows down a moving body.
(c) Step on to the pedal of a standing bicycle.	(v) Force starts the movement in a at.
(d) Pedalling towards the finishing line in a cycle race.	(ii) Force makes a body move faster.
(e) Turning the handle-bar of a cycle while taking turns	(i) Force changes the direction of a moving body.

Question 2.

Column-A	Column-B
(a) Magnet attracts iron fillings.	(i) Electrostatic force
(b) A piece of chalk wears out as it is used on a blackboard.	(ii) Newton
(c) Force required to lift 100 g mass vertically against the gravity.	(iii) Non-contact force
(d) Force is measured in	(iv) Friction causes wear and tear
(e) Tiny bits of dry paper are pulled by the rubbed comb.	(v) Kilogram weight

▼ Answer

Column-A	Column-B
(a) Magnet attracts iron fillings.	(v) Kilogram weight
(b) A piece of chalk wears out as it is used on a blackboard.	(iii) Non-contact force
(c) Force required to lift 100 g mass vertically against the gravity.	(i) Electrostatic force

(d) Force is measured in	(ii) Newton
(e) Tiny bits of dry paper are pulled by the rubbed comb.	(iv) Friction causes wear and tear

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Question 3.

Column-A	Column-B
(a) Pulling a drawer out from a table	(i) Friction
(b) Force	(ii) Weight of the body
(c) Moving ball stops after sometime due to	(iii) Push or pull
(d) Spring balance	(iv) Gravitational force
(e) An apple falls on the earth due to	(v) Contact force

▼ Answer

Column-A	Column-B
(a) Pulling a drawer out from a table	(v) Contact force
(b) Force	(iii) Push or pull
(c) Moving ball stops after sometime due to	(i) Friction
(d) Spring balance	(ii) Weight of the body
(e) An apple falls on the earth due to	(iv) Gravitational force

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State whether the following statements are True or False:

Question 1.
Force always has a particular direction.

▼ Answer

True

Question 2.
Friction is always harmful.

▼ Answer

False

Question 3.
A magnet attracts all metals towards itself.

▼ Answer

False

Question 4.
Force can increase or decrease the speed of a moving object.

▼ Answer

True

Question 5.
Powder applied to a carrom-board reduces friction.

▼ Answer

True

Question 6.
Gravity is a contact force.

▼ Answer

False

Question 7.
Weight is a measure of the gravitational attraction on a body.

▼ Answer

True

Question 8.
Buildings have wide foundations.

▼ Answer

True

Question 9.
It is easier to cut with a blunt knife than with a sharp knife.

▼ Answer

False

Question 10.
Horse can easily move in desert.

▼ Answer

False

Question 11.
The fountain pens start leaking at higher altitudes.

▼ Answer

True

Question 12.
The atmospheric pressure gradually falls as we go up above earth's surface.

▼ Answer

True

Question 13.
The SI unit of pressure is Pascal.

▼ Answer

True

Question 14.
The pressure is exerted equally in all directions.

▼ Answer

True

Question 15.
The atmospheric pressure is measured with the help of an instrument called barometer.

▼ Answer

True

Fill in the blanks:

Question 1.
To draw water from a well we have to ..... at the rope.

▼ Answer

pull

Question 2.
A charged body ..... an uncharged body towards it.

▼ Answer

attracts

Question 3.
To move a loaded trolley we have to …… it.

▼ Answer

push

Question 4.
The north pole of a magnet …… the north pole of another magnet.

▼ Answer

repels

Question 5.
A women using pointed heels, exerts …… pressure than while using a flat heel.

▼ Answer

more

Question 6.
The SI unit of pressure is …….

▼ Answer

Pascal

Question 7.
Force acting on a unit area is called …….

▼ Answer

pressure

Question 8.
The lesser is the …… of a solid, the more the pressure it exerts.

▼ Answer

area

Question 9.
Pressure in liquids is measured by ……

▼ Answer

manometer

Question 10.
If force is increased, pressure ……

▼ Answer

increases

Question 11.
Spring balance is used to measure …… of the body.

▼ Answer

weight

Question 12.
An object slows down when force is applied on it in the …… direction.

▼ Answer

opposite

Question 13.
…… is necessary to make body start moving from rest.

▼ Answer

Force

Question 14.
The …… of dough (kneaded flour) changes on pressing with a rolling pin (belan) to make chapatis.

▼ Answer

shape

Question 15.
When you want to open the pencil box you …… the lid and when you want to close the pencil box you down the lid of your pencil box.

▼ Answer

pull, push

Question 16.
At a give depth a liquid exerts …… pressure in all directions.

▼ Answer

equal

Question 17.
The pressure of sea water increase with the increase in …… of the sea.

▼ Answer

depth

Question 18.
Pressure = Force ÷ …….

▼ Answer

Area
