

ATUL CLASSES

S.C.O.3 SOHI COMPLEX BALTANA(ZIRAKPUR), 8968103999

Test / Exam Name: Atul Classes

Standard: 9th

Subject: Science

Student Name:

Section:

Roll No.:

Questions: 40 Time: 01:00 hh:mm Negative Marks: 0 Marks: 40

- Q1.** Which of the following class of forces is different from others? **1 Mark**
A Pulling of a cart B Stretching of a coiled spring C Kicking of a football
D Weight of the body
- Q2.** Identify the force which is used to lift an object: **1 Mark**
A Horizontal pull B Horizontal push C Vertical Pull D Vertical Push
- Q3.** A body is said to be under balanced forces when the resultant force acting on the body is: **1 Mark**
A Unity B Zero C Infinite D None of these
- Q4.** During a football match the ball shot towards the goal struck the defender's foot at the speed of 10m/s and it bounces back at 20m/s. If the time of impact was 0.2s and mass of the ball is 0.5kg will then the average force exerted by defender on the ball will be. **1 Mark**
A 65 N B 75 N C 70 N D 80 N
- Q5.** While opening a tap with two fingers, the forces applied are : **1 Mark**
A Equal in magnitude B Parallel to each other C Opposite in direction D All the above
- Q6.** Identify the type of force involved when loaded cart is moved: **1 Mark**
A Lifting B Pulling C Running D Reading
- Q7.** Inertia is _____? **1 Mark**
A A property of mass B A type of force C The speed of an object D None of these
- Q8.** Organisms causing elephantiasis belongs to phylum: **1 Mark**
A Echinodermata B Nematode C Arthropoda D Annelida
- Q9.** In above figure, two boys A and B are shown applying force on a block. If the block moves towards the right, which one of the following statements is correct? **1 Mark**
A Magnitude of force applied by A is greater than that of B.
B Magnitude of force applied by A is smaller than that of B. C Net force on the block is towards A.
D Magnitude of force applied by A is equal to that of B.
- Q10.** Which of the following has more inertia.A rubber ball or a stone of the same size: **1 Mark**
A Rubber ball B Stone C Both have same inertia
D Cannot be determined
- Q11.** Nereis and Leech belongs to: **1 Mark**
A Annelids B Arthropods C Echinoderms D Mammals
- Q12.** What can force do to an object? **1 Mark**
A Accelerate an object B Slow down an object C Have the object remain in place
D All of the above
- Q13.** Choose the correct statement(s): **1 Mark**
A Motion necessarily takes place along the direction of force B If no force acts, the body is at rest
C A body in motion, need not be acted upon by a force

D A change in speed is always there, whenever a force is applied on the moving body

- Q14.** _____ is an opposing force that makes objects in motion slow down. **ATUL CLASSES** **1 Mark**
A Force **B** Speed **C** Friction **D** Mass
- Q15.** A water tank filled upto $\frac{2}{3}$ of its height is moving with a uniform speed. On sudden application of the brake, the water in the tank would: **1 Mark**
A Move backward **B** Move forward **C** Come to the rest **D** Be unaffected
- Q16.** 'When a hanging carpet is beaten with a stick, the dust particles start coming out of it'. This phenomenon can be best explained by making use of: **1 Mark**
A Newtons third law of motion. **B** Newtons law of gravitation. **C** Newtons first law of motion.
D Newtons second law of motion.
- Q17.** The ratio of force and acceleration is: **1 Mark**
A Mass **B** Impulse **C** Momentum **D** None of these
- Q18.** A passenger in a moving train tosses a coin which falls behind him. This shows that the motion of train is: **1 Mark**
A Accelerated. **B** Uniform. **C** Retarded. **D** Along circular track.
- Q19.** According to the third law of motion, action and reaction: **1 Mark**
A Always act on the same body but in opposite directions.
B Always act on different bodies in opposite directions. **C** Have same magnitudes and directions.
D Act on either body at normal to each other.
- Q20.** What is force in physics? **1 Mark**
A A power in star wars. **B** A push or pull on an object. **C** A stop on an object.
D The start of an object.
- Q21.** Two objects of masses 1kg and 2kg are moving velocities 2m/s and 4m/s, respectively. They collide and after collision the first object moves at a velocity 3m/s, then velocity of second object is: **1 Mark**
A 3.5m/s **B** 4.5m/s **C** 2.5m/s **D** 0m/s
- Q22.** Force exerted is: **1 Mark**
A Effort **B** Load **C** Fulcrum **D** None of these
- Q23.** The unit of measuring momentum of a moving body is: **1 Mark**
A ms^{-1} **B** kg ms^{-1} **C** kg ms^{-2} **D** $\text{Nm}^2\text{kg}^{-2}$
- Q24.** When a rubber balloon held between the hands is pressed, its shape changes. This happens because: **1 Mark**
A Balanced forces act on the balloon. **B** Unbalanced forces act on the balloon.
C Frictional forces act on the balloon. **D** Gravitational forces act on the balloon.
- Q25.** **1 Mark**
1. Force can change the direction and magnitude of the velocity.
2. Acceleration may be acquired due to the reduction in the mass of the body under motion.
3. Two masses moving with the same velocity can be stopped in distances S_1 and S_2 ($S_2 < S_1$) such that $m_1 > m_2$ with the same retarding force.
A A, B and C are all true statements. **B** A is true, B is false and C is true statements.
C A, B and C all are false statements. **D** A is false, B is true and C is true statements.
- Q26.** A girl is pushing a box towards east direction. In which direction should her friend push the box so that it moves faster in the same direction? **1 Mark**
A North **B** South **C** East **D** West
- Q27.** When a fire man directs a powerful stream of water on a fire from a hose pipe, the hose pipe tends to go backward. This is an example of Newton's: **1 Mark**

A Law of gravitation **B** First law of motion **C** Second law of motion **D** Third law of motion

- Q28.** Which of the following statement is not correct for an object moving along a straight path in an accelerated motion? **1 Mark**
1. Its speed keeps changing.
 2. Its velocity always changes.
 3. It always goes away from the earth.
 4. A force is always acting on it.
- Q29.** Which of the following situations involves the Newton's second law of motion? **1 Mark**
- A** A force can stop a lighter vehicle as well as a heavier vehicle which are moving.
- B**
A force exerted by a lighter vehicle on collision with a heavier vehicle results in both the vehicles coming to a standstill.
- C** A force can accelerate a lighter vehicle more easily than a heavier vehicle which are moving.
- D**
A force exerted by the escaping air from a balloon in the downward direction makes the balloon to go upwards.
- Q30.** The inertia of an object tends to cause the object. **1 Mark**
- A** To increase its speed. **B** To decrease its speed. **C** To resist any change in its state of motion.
D To decelerate due to friction.
- Q31.** A force-time graph for a linear motion of a body is shown in the figure. The change in linear momentum between 0 and 7s is. **1 Mark**
- A** 2 N-S **B** 3 N-S **C** 4 N-S **D** 5 N-S
- Q32.** The seat belts are provided in the cars so that if the car stops suddenly due to an emergency braking, the persons sitting on the front seats are not thrown forward violently and saved from getting injured. Can you guess the law due to which a person falls in forward direction on the sudden stopping of the car? **1 Mark**
- A** Newton's first law of motion. **B** Newton's second law of motion. **C** Newton's third law of motion.
D Newton's law of gravitation.
- Q33.** Which of the following is NOT attributable to application of force? **1 Mark**
- A** Rowing of a boat **B** Bursting of a balloon while blowing **C** Pedaling a cycle
D Catching a moving cricket ball
- Q34.** A 20kg gun fires a bullet of mass 20g with a velocity of 400m/s. The action on the shoulder of the person per second by the gun is: **1 Mark**
- A** 4000N **B** 4N **C** 8N **D** 8000N
- Q35.** When a balloon held between the hands is pressed, its shape changes. This happens because: **1 Mark**
- A** Balanced forces act on the balloon. **B** Unbalanced forces act on the balloon.
C Frictional forces act on the balloon. **D** Gravitational force acts on the balloon.
- Q36.** An organism having some characteristics of plant and animal kingdom is: **1 Mark**
- A** Paramecium **B** Amoeba **C** Euglena **D** Giraffe
- Q37.** A water tanker filled upto $\frac{2}{3}$ of its height is moving with a uniform speed. On sudden application of the brake, the water in the tank would: **1 Mark**
1. Move backward.
 2. Move forward.
 3. Be unaffected.
 4. Rise upwards.
- Q38.** A tennis ball and a cricket ball, both are stationary. To start motion in them? **1 Mark**

A A less force is required for the cricket ball than for the tennis ball

B A less force is required for the tennis ball than for the cricket ball

C Same force is required for both the balls

D Nothing can be said

ATUL CLASSES

Q39. You are on a frictionless horizontal plane. You can get off the plane:

1 Mark

A By jumping

B By throwing some pieces of stone

C By rolling your body on the surface

D By running on the plane

Q40. When a horse pulls the tonga, the tonga moves forward due to:

1 Mark

A Force exerted by horse in forward direction

B Reaction of the tonga

C Reaction of the ground on the horse

D None of these