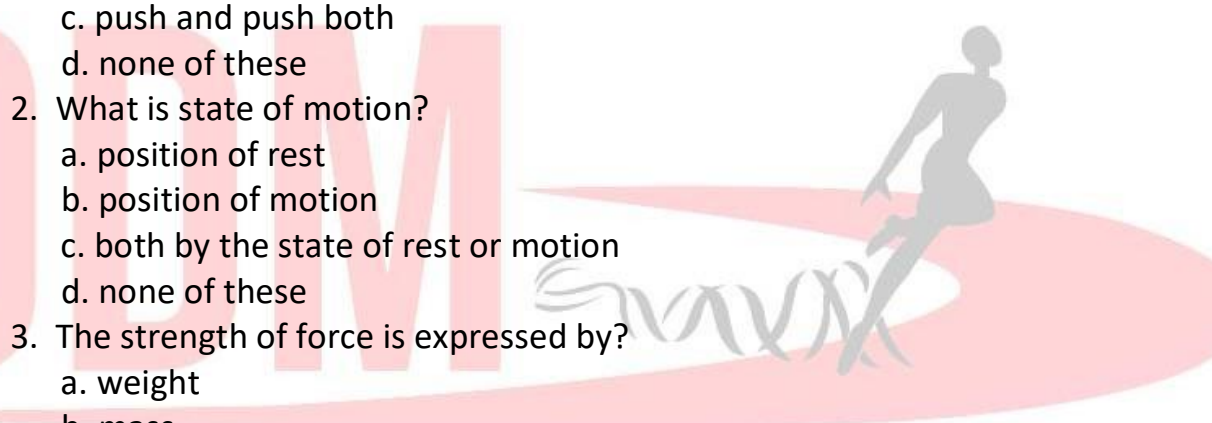


## CHAPTER-3

### FORCE

#### worksheet

#### Level1: 1 MARK QUESTIONS (MCQ)

1. What is force?
    - a. pull
    - b. push
    - c. push and pull both
    - d. none of these
  2. What is state of motion?
    - a. position of rest
    - b. position of motion
    - c. both by the state of rest or motion
    - d. none of these
  3. The strength of force is expressed by?
    - a. weight
    - b. mass
    - c. magnitude
    - d. longitudinal force
  4. The force between two charged bodies is called
    - a. muscular force
    - b. gravitational force
    - c. magnetic force
    - d. electrostatic force
  5. When two forces act in opposite directions, then net force acting two forces
    - a. sum of two factors
    - b. difference between two factors
    - c. both of these
    - d. none of these
  6. Magnetic force is
    - a. contact force
    - b. non-contact force
    - c. both a and b
    - d. none of these
  7. Force acts on an object may change
    - a. direction
- 
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- b. shape
  - c. speed
  - d. all of above
8. Leaves or fruits fall on the ground due to
- a. magnetic force
  - b. gravitational force
  - c. electrostatic force
  - d. muscular force

9. Friction is a
- (a) non-contact force
  - (b) contact force
  - (c) magnetic force
  - (d) electrostatic force

10. Which of the following produces least friction?

- (a) Sliding friction
- (b) Rolling friction
- (c) Composite friction
- (d) Static friction

11. Friction always

- (a) opposes the motion
- (b) helps the motion
- (c) both (a) and (b)
- (d) none of these

12. Friction can be reduced by using

- (a) oil
- (b) grease
- (c) powder
- (d) all of these

13. Static friction is less than

- (a) sliding friction
- (b) rolling friction
- (c) both (a) and (b)
- (d) none of these

**LEVEL 2- QUESTIONS (SHORT ANSWER TYPE)**

1. If we push the book on the table, it stops after sometime. Why?
2. Why are the worn out tyres discarded?
3. Why is it easier for the fish to swim in water?
4. Give some examples to show that friction produces heat.
5. Give some examples of smooth and rough surfaces
6. How does the friction depend on the nature of the surface?
7. When the two surfaces are pressed harder, friction increases. Explain why?
8. Why is it easier to move the box already in motion than to get it started?  
or  
The sliding friction is slightly smaller than the static friction. Explain why?
9. Why are the soles of shoes and tyres of vehicles grooved?
10. Which force is responsible for downward movement of a parachutes? Will he come down with the same speed without the parachute?
11. Two thermocol balls held close to each other move away from each other. When they are released, name the force which might be responsible for this phenomenon. Explain.
12. Name the forces acting on the car sticking to an electromagnet in a Junkyard. Which one of them is larger?
13. What are the effects of force on an object?

**LEVEL 3 (LONG ANSWER TYPE QUESTIONS)**

1. What is force? State the difference between contact force and non-contact force .Give examples for each
2. Why it is easier to walk on soft sand if we have flat shoes rather than shoes with sharp heels (or pencil heels)?
3. What are the causes of friction? Explain in detail.
4. Write advantages and disadvantages of friction.
5. On Sunday Ram invited everybody to play carom in his house. While playing, striker was not moving properly from one place to another. Everybody thought it is their bad luck. But Seema, one of the player, quickly got up and sprinkled some talcum powder on the board.
  - a) Why Seema sprinkled some talcum powder?
  - b) Can you give some other example which serves the same purpose?
  - c) What value of Seema is shown here?
6. Imagine that friction suddenly vanishes. How would life be affected? List ten such situations