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1. Explain the classification of force on the basis of its application.

Ans- Depending upon the application of forces, they are classified into two categories:

1. Contact forces and
2. Non-contact forces

i) Contact forces: The force which acts on bodies by making an actual contact, is called contact force.

Examples:

a) The muscular force applied as push and pull.

ii) Non-contact forces: Forces which act on bodies with no contact with them are called non-contact forces or forces from a distance.

Examples:

a) Gravitational force between two bodies at a distance, such as the force of attraction between two heavenly bodies.

2. What do you mean by contact forces? Give some examples.

Ans- Contact forces: The force which acts on bodies by making an actual contact, is called contact force.

Examples:

a) The muscular force applied as push and pull.

b) The force of friction or the frictional force exerted by a surface on a body in contact with it, in a

direction opposite to the direction in which the body is moved on the surface.

c) The force of tension in a string when a load is suspended from it.

d) The force of reaction normal to the surface when a body is placed on a surface.

3. List the type of non-contact forces.

Ans- The type of non-contact forces are-

a) Gravitational force between two bodies at a distance such as the force of attraction between two heavenly bodies.

b) Electrostatic force between charged bodies at a distance either repel or attract each other.

c) Magnetic force between the poles of magnets at a distance. Like poles repel each other while the unlike poles attract each other.

4. Explain electrostatic forces.

Ans- Electrostatic force between charged bodies at a distance either repel or attract each other. Unlike charges attract while like charges repel.