

## Civil Engineering Applied Mechanics Objective Questions and Answers Pdf Download

1. The necessary condition of equilibrium of a body is
  - a. algebraic sum of horizontal components of all the forces must be zero
  - b. algebraic sum of vertical components of all the forces must be zero
  - c. algebraic sum of the moments of the forces about a point must be zero
  - d. all a, b and c

Ans: D

2. A smooth cylinder lying on its convex surface remains
  - a. in stable equilibrium
  - b. in unstable equilibrium
  - c. in neutral equilibrium
  - d. out of equilibrium

Ans: B

3. A heavy ladder resting on a floor and against a vertical wall may not be in equilibrium, if
  - a. floor is smooth and the wall is rough
  - b. floor is rough and the wall is smooth
  - c. floor and wall both are smooth surfaces
  - d. floor and wall both are rough surfaces

Ans: C

4. The centre of gravity of a plane lamina will not be at its geometrical centre if it is a
  - a. circle
  - b. equilateral triangle
  - c. rectangle
  - d. square
  - e. right angled triangle

Ans: E

5. The centre of gravity of a homogenous body is the point at which the whole
  - a. volume of the body is assumed to be concentrated
  - b. area of the surface of the body is assumed to be concentrated
  - c. weight of the body is assumed to be concentrated
  - d. all the above

Ans: C

6. Centre of gravity of a thin hollow cone lies on the axis of symmetry at a height of
  - a. one half of the total height above base
  - b. one third of the total height above base
  - c. one fourth of the total height above base
  - d. none of these

Ans: B

7. The maximum frictional force which comes into play, when a body just begins to slide over the surface of a other body, is known as
  - a. sliding friction
  - b. rolling friction
  - c. limiting friction
  - d. none of thee

Ans: C

8. The angle of friction is
- The ratio of the friction and the normal reaction
  - The force of friction when the body is in motion
  - The angle between the normal reaction and the resultant of normal reaction and limiting friction
  - The force of friction at which the body is just about to move

Ans: C

9. Kinetic friction may be defined as
- friction force acting when the body is just about to move
  - friction force acting when the body is in motion
  - angle between normal reaction and resultant of normal reaction and limiting friction
  - ratio of limiting friction and normal reaction

Ans: B

10. The angle which an inclined surface makes with the horizontal when a body placed on it is on the point of moving down, is called
- angle of repose
  - angle of friction
  - angle of inclination
  - none of these

Ans: A

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