EXERCISE-I

1. Define force and write its unit.
2. Write down the two classes of force based on their classification.
3. Write down two names of contact forces and non contact forces.
4. Define pressure.
5. Write down the expression for pressure exerted by a liquid column and mention the terms involved.
6. Define Pascal's law.
7. Write down the archimedes principle.
8. Write down the unit of pressure in CGS system.

EXERCISE-II

SECTION-A

- **Fill in the blanks**

1. If the same force is made to act on a larger area, the pressure_____
2. A _____ is used to measure liquid pressure.
3. The pressure exerted by the air around is called _____
4. At a given depth, a liquid exerts _____pressure in all directions.
5. The pressure of air _____with the increase in height above sea level.

SECTION-B

- **Multiple choice question with one correct answer**

1. When a stationary football is being kicked the kind of force applied on football is
   (A) Push (B) Pull (C) Squeeze (D) None
2. The SI unit of force is
   (A) metre (B) cm (C) Newton (D) m/s
3. Wind is a kind of
   (A) Contact force (B) Non contact force
   (C) Action at a distance force (D) None of these
4. Gravitational force is
   (A) Contact force (B) Repulsive force (C) Attraction force (D) None of these
5. A force
   (A) can change the shape and size of object (B) can be seen
   (C) is a scalar physical quantity (D) none of these

6. Which of the following class of forces is different from others?
   (A) Magnetic force (B) Electrical force
   (C) Gravitational force (D) Stretching of a spring
7. If a rock is brought from the surface of the moon
   (A) Its mass will change (B) Its weight will change, but not mass
   (C) Both mass and weight will change (D) Its mass and weight will remain the same
8. A contact force cannot act through
   (A) Empty space (B) Touching
   (C) Touching with metal rod (D) Touching with wooden rod
9. Density is equal to
   (A) $\frac{\text{volume}}{\text{mass}}$ (B) $\frac{\text{mass}}{\text{weight}}$ (C) $\frac{\text{mass}}{\text{volume}}$ (D) mass×volume

SECTION-C

- **Match the following (one to one)**

Column-I and **column-II** contains **four** entries each. Entries of column-I are to be matched with some entries of column-II. Only One entries of column-I may have the matching with the some entries of column-II and one entry of column-II Only one matching with entries of column-I

1.

Column I	**Column II**
(A) Force	(P) m^2
(B) Pressure	(Q) N/m^2
(C) Area	(R) N
(D) Density	(S) kg/m^3

2.

Column I	**Column II**
(A) Charge	(P) Magnetic force
(B) Moon	(Q) Biological force
(C) Magnet	(R) Electrostatic force
(D) Muscles	(S) Gravitational force

3.

Column I	**Column II**
(A) Force	(P) A non contact force
(B) Weight	(Q) Push or pull
(C) Pressure	(R) Weight of fluid displaced
(D) Buoyancy	(S) Pascal

EXERCISE-III

SECTION-A

- **Multiple choice question with one correct answers**

1. The buoyant force depends on the
   (A) depth of a liquid (B) density of a liquid (C) colour of a liquid (D) None of these

2. The SI unit of pressure is
(A) atmosphere (B) dyne/cm^2 (C) pascal (D) mm of Hg

3. Pressure cannot be measured in
(A) Nm^{-2} (B) Bar (C) Pa (D) kg weight

4. Frictional force can't be measured in
(A) kg weight (B) newton (C) dyne (D) kg ms^{-1}

5. 1 Dyne is equal to
(A) 980 g weight (B) 1/980 g weight (C) 980 g weight (D) none of these

6. Friction is a/an
(A) variable force (B) necessary evil
(C) important force is daily life (D) all of the above

7. The atmospheric pressure at the surface of the earth is about
(A) 10^3 Nm^{-2} (B) 10^5 Nm^{-2} (C) 10^{-3} Nm^{-2} (D) 10^5 Nm^{-2}

8. Pascal is the unit for
(A) Pressure (B) Thrust (C) Boyant force (D) None of these

9. At sea level, atmospheric pressure is
(A) 76 cm of Hg column (B) 7.6 cm of Hg column
(C) 0.76 cm of Hg column (D) 76 cm of water column

10. The pressure exerted by a liquid of height h is given by (symbols have their usual ?)
(A) h/dg (B) hdg (C) h/d (D) hg

11. The density of water is
(A) 10^{-3} kg m^{-3} (B) 10^{-2} kg m^{-3} (C) 10^2 kg m^{-3} (D) 10^3 kg m^{-3}

12. It is difficult to walk on ice because of
(A) absence of friction (B) absence of inertia (C) more inertia (D) more friction

13. A body is said to be under balanced forces when the resultant force acting on the body is
(A) unity (B) zero (C) infinite (D) None of these

14. The hot air balloon rises because it is
(A) denser (B) less dense
(C) equally dense (D) the given statement is wrong

15. 1 millibar is equal to
(A) 100 Nm^{-2} (B) 100 Nm^{-2} (C) 1 Nm^{-2} (D) 1/100 Nm^{-2}

16. Atmospheric pressure is measured by a
(A) Doctor's thermometer (B) Speedometer (C) Mercury barometer (D) None of these

17. The weather forecasting department uses an the unit of pressure.
(A) bar (B) Nm^{-2} (C) Pa (D) mm of Hg

18. Decreasing order of friction forces is
(A) rolling, static, sliding (B) rolling, sliding, static
(C) sliding, static, rolling (D) static, sliding, rolling

Answers

Exercise-II

Section-A

1. Decreases
2. Manometer
3. Atmospheric pressure
4. Equal
5. Decreases

Section-B

1.	(A)	2.	(C)	3.	(A)	4.	(C)	5.	(A)
6.	(D)	7.	(B)	8.	(A)	9.	(C)		

Section-C

1. (A)-(R), (B)-(Q), (C)-(P), (D)-(S)
2. (A)-(R), (B)-(S), (C)-(P), (D)-(Q)
3. (A)-(Q), (B)-(P), (C)-(S), (D)-(R)

Exercise-III

Section-A

1.	(B)	2.	(C)	3.	(D)	4.	(D)	5.	(B)
6.	(D)	7.	(B)	8.	(A)	9.	(A)	10.	(B)
11.	(D)	12.	(A)	13.	(B)	14.	(B)	15.	(A)
16.	(C)	17.	(A)	18.	(D)				