

SECTION – A**(40 Marks)****(Choose the correct answer)****QUESTION -1****[1x15=15]**

- (i) Which of the following is a monoatomic molecule.
(a) oxygen (b) water (c) neon (d) hydrogen
- (ii) A gas does not
(a) get compressed (b) have free surfaces (c) expand when heated (d) have viscosity
- (iii) Read both the **Assertion (A)** and the **Reason (R)**. Choose the correct option:
A: solids have a definite size
R: the particles of solids do not leave their mean position
(a) Both A and R are true, and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.
- (iv) Which of the following can flow?
(a) solids (b) liquids (c) gases (d) both (b) and (c)
- (v) water turns into steam by _____
(a) freezing (b) boiling (c) melting (d) condensation
- (vi) Which of the following is the correct symbol of its S.I unit?
(a) kelvin - K (b) metre- M (c) kilogram- KG (d) second- S
- (vii) 10 mm is equal to
(a) 10 dm (b) 1 m (c) 1 cm (d) 100 cm
- (viii) The range of clinical thermometer is:
(a) 35° C to 40° C (b) 35° C to 42° C (c) 35° C to 98° C (d) 35° C to 100° C
- (ix) Which of the following is not the bigger unit of mass?
(a) Metric tonne (b) quintal (c) kilogram (d) milligram
- (x) A force does not change
(a) mass (b) length (c) shape (d) state of motion

- (xi) A force is expressed by
 (a) Magnitude only (b) direction only (c) both magnitude and direction (d) none of these
- (xii) Which of the following force is always attractive
 (a) Magnetic force (b) electrostatic force (c) frictional force (d) gravitational force
- (xiii) Identify the false statement
 (a) Gases are less viscous than liquids. (b) force of friction is always oppose the motion
 (c) The unit of weight is kilogram (d) like poles repel and unlike poles attract
- (xiv) Identify the correct statement
 (a) The force of friction depends on the speed of the moving body
 (b) Molecules of a substance are constantly in motion.
 (c) Liquids offer more friction than gases.
 (d) Boiling point of water is 373°K
- (xv) Friction is reduced by:
 (a) Making the surface dry (c) making the surface rough
 (b) the surfaces are made wet (d) sprinkling sand on the surface

QUESTION -2 Define the following

[1x5=5]

- | | |
|-----------------------|------------------|
| (i) rolling friction | (iv) temperature |
| (ii) Weight of a body | (v) molecule |
| (iii) Balanced force | |

QUESTION - 3 Fill in the blank.

[1x5=5]

- (i) The zero mark in _____ thermometer is the melting point of ice (Celsius/ Kelvin)
 (ii) A solid exerts pressure _____. (in all direction/ downwards)
 (iii) A molecule or a cluster of molecules is called.(nanoparticles/ micro-particles)
 (iv) The S.I unit of force is _____. (kgf/ N)
 (v) We use ball bearings to _____ friction. (increase/ reduce)

QUESTION - 4 Match the following

[1x5=5]

Column- A

Column- B

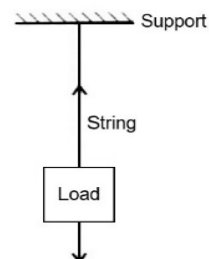
- | | |
|-------------------------|-------------------------|
| (i) like poles | (a) short time interval |
| (ii) contact force | (b) length |
| (iii) stop watch | (c) force of friction |
| (iv) electronic balance | (d) repel |
| (v) metre ruler | (e) mass |
| | (f) attract |

QUESTION - 5

- (i) Define the state of rest and state of motion. [2]
- (ii) Convert: a) 3 h = _____ min, b) 5 foot = _____ inch [2]
- (iii) Draw the table and fill it. [3]

Scale of temperature	Ice point	Steam point
1) Kelvin		
2) Celcius		
3) Fahrenheit		

- (iv) Copy the diagrams and label the force. [2]
- (v) Moving parts of a machine get warm after sometime. Give reason [1]

**SECTION-B (40 MARKS)****ANSWER ANY FOUR QUESTIONS****QUESTION -6****[3+3+4]**

- write the three properties which decide the state of a substance.
- Name the instrument used for measuring the temperature of a person. Write the normal temperature of the human body in Celsius Scale and Kelvin Scale.
- Define the following terms (i) mass (ii) area (iii) static friction (iv) force

QUESTION -7**[3+3+4]**

- State the S.I units with symbol of the following quantities i) mass (ii) time (iii) temperature.
- List any three advantages of friction.
- Write four characteristics of particles of matter.

QUESTION -8**[3+3+4]**

- Write any three effects of the force on a body which is allowed to move.
- Define gas. Write it's properties of based on (i) thermal expansion (ii) diffusion
- Convert the following quantities as indicated.
 - 3.5 m= _____ cm
 - 8 h 30 min= _____ min
 - 8.6 kg = _____ g
 - 100°C = _____ K

QUESTION -9**[3+3+4]**

- a. What is measurement? How measurement is expressed? Mention any one property of a unit.
- b. Define force of cohesion and force of adhesion. Mercury doesn't stick to the glass because _____ force between mercury particles is more.
- c. Copy and complete the table

	SOLID	LIQUID	GAS
1) Volume			
2) Number of free surfaces			
3) Expansion on heating			
4) Inter molecular space			

QUESTION-10

[3+3+4]

- (a) What is the cause of friction? State two factors which directly affect the force of friction.
- (b) Give reason : (i) A ball thrown up returns to the ground
(ii) A bicycle comes to the rest slowly when the cyclist stops pedaling.
(iii) It is difficult to open an inkpot with oily fingers
- (c) Name the following (i) The quantity which the unit 'm/s' measures
(ii) one thousandth part of a metre
(iii) The error due to incorrect position of the eye while taking a reading.
(iv) The front portion of a body is made sharp or pointed

*****ALL THE BEST*****