Chapter-1

Worksheet-1

Section 1

Q1. Discuss Force.

Q2. What do you understand by forces due to interaction? Explain with an example.

Q3. Why direction in which force is applied is necessary? Explain in brief.

Q4. Discuss effects of force in brief.

Q5. How are forces are classified? How many types of forces are there?

Q6. Explain electrostatic force with an example.

Q7. Differentiate between Force and Pressure.

Q8. A force of 100 N is applied to an object of area 2 m^2. Calculate the pressure.

Q9. Why a Sharp Knife Cuts Better than a Blunt Knife? Explain.

Q10. How pressure changes with the depth of the liquid?

Section 2

Q11. Maria is amazed to see that her dry hair gets attracted towards the plastic comb during the combing. The hairs are attracted toward the comb because of

a) Gravitational Force
b) Electrostatic Force

c) Muscular Force
d) Frictional Force

Q12. Iron filings get attracted toward a bar magnet because of the presence of

a) Gravitational Force
b) Electric Force
c) Magnetic Force
d) Muscular Force

Q13. Jessy is pulling a bucket full of water, out of a well. What is Jessy working against?

a) Gravitational Pull of Earth
b) Magnetic Field of earth
c) Elasticity of rope
d) Tension in the rope

Q14. A force of 16N acts on an area of 50 cm^2.what is the pressure in Pascal?

a) 3200 Pa
b) 4200 Pa
c) 5200 Pa
d) 2200 Pa

Q15. A rectangular block of mass 2kg is lying on the ground. What will be the thrust on the surface of the ground due to the block?

a) 16.6 N
b) 18.6 N
c) 19.6 N
d) 20.6 N

Q16. What will be the area of a body which experiences a pressure of 6000 Pa by a force of 120 N?

a) $\frac{1}{5}$ m^2
b) $\frac{1}{50} m^2$
c) $\frac{1}{500} m^2$
d) $\frac{1}{5000} m^2$

Q17. The mass of a brick is 2.5 kg. Its dimensions are 10 cm x 5 cm x 2 cm. What will be its pressure exerted by it on the ground if it is resting on? (Take 1 kg wt. = 10 N) (i) a 10 cm x 5 cm base (ii) a 5 cm x 2 cm base.

a) 6000 Pa, 20,000 Pa
b) 5000 Pa, 25,000 Pa
c) 4000 Pa, 15,000 Pa
d) 10000 Pa, 10,000 Pa

Q18. Which of these is not a SI unit of measurement.
a) N
b) Pa
c) kg

d) cm

Q19. The pressure exerted by a liquid:

a) decreases with depth
b) does not change with depth
c) increases with depth
d) In different in different direction at the same depth

Q20. When a given force is applied on larger area of contact the pressure exerted by it:

a) increases
b) decreases
c) does not change
d) None of these