

Chapter 11

MULTIPLE CHOICE QUESTIONS

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| 1. a | 2. c | 3. b | 4. d |
| 5. d | 6. b | 7. a | 8. a |

VERY SHORT ANSWER QUESTIONS

9. Muscular force.
10. While walking we apply force on the ground.
11. Towards east.
12. Magnetic force.
13. Electrostatic force.
14. Force of gravity.
15. Yes
16. Upward force is larger than the force of gravity.
17. Yes

SHORT ANSWER QUESTIONS

18. The force changes the shape of the dough.
19. Force of gravity. No, without the parachute his speed will be higher.
20. Both the forces are of equal magnitudes and applied in the opposite directions.
21. Electrostatic force. The balls have similar charges. They move away due to repulsion between similar charges.
22. Earth and fruits.

23. He should apply a force to pull the cart up the slope.
24. Magnetic force (in the upward direction) and force of gravity or the weight of the car (downward). Magnetic force is larger than the force of gravity.

LONG ANSWER QUESTIONS

25. The archer stretches the string of the bow by applying muscular force. In the process the shape of the bow changes. When the string is released, it regains its original position that provides the initial force to set the arrow in motion. The force of gravity that acts on the arrow in the downward direction brings it to the ground.
26. Blunt blades have larger area compared to the sharp-edged blades. Thus, the applied force produces a lower pressure in case of blunt blades, which makes it difficult to cut the cloth.
27. Rod B will go deeper as it has a smaller area of contact, therefore the same force (weight of the rod) produces more pressure. In case of rod A the same force produces less pressure.
28. The woman wearing sandals with flat soles will feel more comfortable while walking on the sandy beach. The flat soles have larger area compared to the sandals with pointed heels. Since the two women are of the same weight, they will apply same force on the ground. Therefore, the pressure exerted by the pointed heels will be more compared to that with sandals having flat soles. As a result the pointed heel sandals will sink more in the sand than the flat sole sandals. Hence, walking with flat sole sandals will be more comfortable.
29. When we prick the surface of an inflated balloon with a needle it exerts a larger pressure because it has a smaller area of contact compared to the finger. The large pressure pierces the surface of the balloon easily.
30. B, D, A, C. Because pressure of a liquid column depends upon the height of the liquid column and not on volume of the liquid.