Chapter 12

MULTIPLE CHOICE QUESTIONS

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

VERY SHORT ANSWER QUESTIONS

9. Larger force will be required to move the heavier block.

10. Yes.

11. The bicycle with worn out tyres is more likely to skid.

12. Force of friction will be zero as the net force on the box is zero.

13. No

SHORT ANSWER QUESTIONS

14. When rubber soles are used for a long time, their surfaces become smooth. Hence, the friction between the sole and the floor decreases. Therefore, slippers become slippery.

15. Yes, rolling friction. If an air cushion is introduced between the wheel and the rails, the friction will decrease.

16. The wearing off of cartilage will increase the friction. As a result the movement of joints will become difficult which may lead to joint pains.

17. She may rub soil to increase friction between the rope and her hand.

18. To increase friction between handle of the bat and hands, to have a better grip.

19. To increase friction to make it more effective for grinding again.

20. On the surface covered with sand, it will cover the least distance because sand offers maximum friction against its motion.

21. Because initially they had to apply force to set the card in motion but once the car started rolling,they had to apply force only to balance rolling friction of the car, the value of which is very less.

LONG ANSWER QUESTIONS

22. Friction between grinding stone and the cutting edge of the knife produces heat. As the friction is very large in this case, a large amount of heat is produced and we see sparks flying.

23. The friction between sand paper and metal sheet is very large, compared to that between the ordinary paper and the metal sheet. Thus the sand paper is able to remove the outer dull layer from the metal sheet more effectively and makes it more shining.

24. If the seat cover is very smooth then the friction between our body and the seat is very small. Therefore, when the brakes are applied we tend to slip.

25. They can put rollers below the heavy load. Since, the rolling friction is smaller than the sliding friction putting rollers below the heavy load will make the task easier for them.