Chapter 13

MULTIPLE CHOICE QUESTIONS

1. b	2. a	3. d	4. a
5. c	6. a	7. a	8. c
9. a	10. c		

VERY SHORT ANSWER QUESTIONS

11. 1650 m

12. Yes, larynx (vocal cords)

13. The speed of sound is lower than that of the speed of light and therefore sound reaches him later than light.

14. Yes, eardrum.

15. Sitar and Ektara (any other musical instruments which produces sound by a vibrating string)

SHORT ANSWER QUESTIONS

16. Time period : 2 s
frequency : 0.5 oscillations/sec

17. If the sound produced by a vibrating body is in the audible range, the sound produced will be heard by us otherwise we will not be able to hear the sound even though the body is vibrating.

18. The frying pan will vibrate. We will not be able to hear the sound of vibration because sound cannot travel in vacuum.

19. No, In space there is vacuum and sound cannot travel in vacuum.

20. Vehicle noise, bursting of crackers, loudspeakers.
(Any other reasonable sources of noise pollution should be accepted)

LONG ANSWER QUESTIONS

21. The loudness of sound depends upon the amplitude of vibration. The amplitude of string is larger when it is plucked with greater force and hence the sound will be louder in that case.

22. **Hint:** Explain how a vibrating body produces sound and how it travels through the air and is heard by us by our ears.

23. The loudness of the sound will decrease as the air is removed slowly from the plastic bottle. If the air in the plastic bottle is removed completely, there is vacuum in the bottle. The sound cannot travel through vacuum and we cannot hear the sound of the alarm clock at all.

24. The noise level is quite low at night. Therefore the sound of the clock appears much clearer at night than in the day.

25. i) Trees must be planted along the roads and around the buildings.
    ii) Use of horns should be minimised.
    iii) Silencers must be installed in transport vehicles and industrial machines.

    (Other reasonable measures should be accepted)