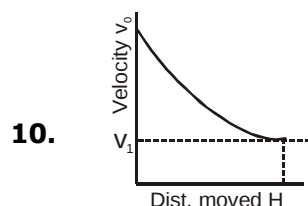


Exercise-I

1. D 2. C 3. C 4. B 5. B 6. C 7. B
 8. C 9. D 10. B 11. A 12. C 13. D 14. A
 15. A 16. C 17. D 18. B

Exercise-II

1. $1.44 \times 10^{-5} \text{ J}$ 2. $1.25 \times 10^{-2} \text{ m}$ 3. $7.2 \times 10^{-2} \text{ Nm}^{-1}$ 4. $8.08 \times 10^5 \text{ Nm}^{-2}$
 5. 0.004 m (common film will be concave towards the centre of the smaller bubble)
 6. $\sigma = \frac{P(c^3 - a^3 - b^3)}{4(a^2 + b^2 - c^2)}$ 7. $h = 1.5 \text{ cm}$ 8. 1860 Nm^{-2} 9. $\ell = 1 \text{ cm}$



11. 2.5 cm 12. 20.4 m 13. 4.5 m

Exercise-III

1. A, D 2. B 3. D 4. C 5. A 6. B