

Answers

Chapter 1

1. (iii) 2. (d) 3. (a)

Chapter 2

1. (d) 2. (b) 3. (d) 4. (c)

Chapter 3

1. (d) 2. (c) 3. (a) 4. (c)

Chapter 4

1. (b) 2. (c) 3. (b)

Chapter 5

1. (c) 2. (a) 3. (d) 4. (b)

Chapter 6

1. (d) 2. (b) 3. (d)

Chapter 7

1. (b) 2. (c) 3. (d)

Chapter 8

1. (c)

Chapter 9

1. (d) 2. (d) 3. (b)
4. (a) 5. (d) 6. (c)

7. Distance less than 15 cm; virtual; Enlarged.

9. Yes.

10. 16.7 cm from the lens on the other side; 3.3 cm, reduced; real, inverted.

11. 30 cm

12. 6.0 cm, behind the mirror; virtual, erect

13. $m = 1$ indicates that image formed by a plane mirror is of the same size as the object. Further, the positive sign of m indicates that the image is virtual and erect.

14. 8.6 cm, behind the mirror; virtual, erect; 2.2 cm, reduced.

15. 54 cm on the object side; 14 cm, magnified; real, inverted.

16. -0.50 m; concave lens

17. $+0.67$ m; converging lens

Chapter 10

1. (b)
2. (d)
3. (c)
4. (c)
5. (i) -0.18 m ; (ii) $+0.67\text{ m}$
6. Concave lens; -1.25 D
7. Convex lens; $+3.0\text{ D}$

Chapter 11

1. (d)
2. (b)
3. (d)
4. (c)
5. Parallel
6. 122.7 m ; $\frac{1}{4}$ times
7. $3.33\ \Omega$
8. $4.8\text{ k}\Omega$
9. 0.67 A
10. 4 resistors
12. 110 bulbs
13. 9.2 A , 4.6 A , 18.3 A
14. (i) 8 W ; (ii) 8 W
15. 0.73 A
16. 250 W TV set in 1 hour
17. 1100 W
18. (b) High resistivity of alloys
(d) inversely.

Chapter 12

1. (d)
2. (c)
3. (a) True (b) False
6. vertically downwards
7. (i) Right-hand thumb rule, (ii) Fleming's left-hand rule

Chapter 13

1. (a), (c), (d)
2. (b)
3. (d)

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