

Practice test 04

1. Ans. 2)
2. Ans. 2) NCERT –XII, para 4.2, Page – 59
NCERT – XII, para 4.2, Page – 66
3. Ans 2) NCERT Pg. # 29
4. Ans 1)
5. And. 4)

The length of the vector is not changed by the rotation of the coordinate axes.

$$\sqrt{(n+1)^2 + 1^2} = \sqrt{n^2 + 3^2} \Rightarrow n = 3.5$$

6. Ans. 1)
7. Ans. 3)
8. Ans. 2)
9. Ans. 2)
10. Ans. 3)

Practice Test 03

Biology

Q 1. Ans. 2) NCERT XI Pg. # 72, Fig. 5.11 & 5.12

**Q 2. Ans. 3) NCERT – XII, Para 3.4, Page – 50, 51
NCERT – XII, Para 3.4, Page-54, 55**

**Q 3. Ans. 2) NCERT – XII, para 4.2, Page – 59
NCERT – XII, para 4.2, Page – 66**

Q 4. Ans. 4) NCERT Pg. # 33

Physics

Q5. Ans. 4)

$$\frac{x_1}{x_2} = \frac{4}{3} \tan \theta \text{ and } x_1 \times x_2 = 48 \sin 2\theta \cos \theta = 24$$

$$\sin 2\theta x_1 \times x_2 = 8 \sin \theta + 6 \cos \theta = 10 \sin(\theta + \alpha)$$

$$\text{Here } \alpha = \tan^{-1} \frac{3}{4}$$

Q 6. Ans. 1)

$$|\vec{P} - \vec{Q}| = \sqrt{P^2 + Q^2 - 2PQ \cos 90^\circ} = 10$$

Q 7. Ans. 3)

Chemistry

Q 8. Ans. 4)

- Q 9. Ans. 4)
Q 10. Ans. 1)

PRACTICE TEST 02 (ANSWER)

Biology

1. Ans: 1)
2. Ans 3)
3. Ans 1) NCERT Pg # 35
4. Ans 2) NCERT Pg. # 32

Physics

5. Ans Ans 4)

Here $a = y$; $b = y/t$; $c = y/t^2$

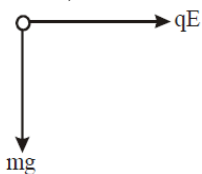
$$abc = (y/t)^3$$

6. Ans 1)

$$\frac{\Delta g}{g} \% = \frac{\Delta \ell}{\ell} \times 100 + 2 \frac{\Delta T}{T} \times 100$$

$$= \frac{0.1}{100} \times 100 + 2 \times \frac{0.1}{50} \times 100 = 0.5\%$$

7. Ans 4)



$$F_{\text{net}} = \sqrt{(qE)^2 + (mg)^2}$$

$$a_{\text{net}} = \sqrt{\left(\frac{qE}{m}\right)^2 + (g)^2} = q_{\text{effective}}$$

Chemistry

8. Ans 1)
9. Ans 2)
10. Ans 3)

PRACTICE TEST 01 (ANSWER)

BIOLOGY

Ans 1. (3)

Ans 2. (4)

Ans 3. (4)

Ans 4. (3)

PHYSICS

Ans 8. (4)

$$\frac{dA}{dt} = 10t + 4$$

$$\text{at } t = 3\text{s } \frac{dA}{dt} = 34\text{m}^2 / \text{s}$$

Ans 9. (4) (iii), (iv)

Ans 10. (2) 9s

$$\text{Given: } v = 20\text{ms}^{-1}, u = 10\text{ms}^{-1}$$

$$\text{and } s = 135\text{m}$$

$$\therefore a = \frac{400 - 100}{2 \times 135} = \frac{300}{270} = \frac{10}{9} \text{m/s}^2$$

$$v = u + at \text{ or } t = \frac{v - u}{a} = \frac{10\text{m/s}}{\frac{10}{9} \text{m/s}^2} = 9\text{s}$$

CHEMISTRY

Ans 5. (3)

Ans 6. (2)

Ans 7. (4)