



## DPP - 8 (Basic Maths)

## Video Solution on Website:-

https://physicsaholics.com/home/courseDetails/36

Video Solution on YouTube:-

https://youtu.be/B8q0FwLlikE

Written Solution on Website:-

https://physicsaholics.com/note/notesDetalis/70

Q 1. Find 
$$\int_{1}^{3} x \, dx = ?$$
 (a) 2

Q 2. Find 
$$\int_{-2}^{1} (5z^2 - 7z + 3) dz = ?$$

(b) 
$$-\frac{69}{2}$$

(c) 
$$\frac{69}{2}$$

(d) 
$$\frac{89}{2}$$

Q 3. Find 
$$\int_0^{\frac{\pi}{2}} (7 \sin t - 2 \cos t) dt = ?$$

(a) 
$$\pi$$

$$(c)\frac{\pi}{2}$$

$$(d)^{\frac{5}{2}}$$

Q 4. Find 
$$\int_5^2 \left(\frac{2}{y}\right) dy = ?$$

(a) 
$$2 \ln(2-5)$$

(b) 
$$\ln \frac{2}{5}$$

(c) 
$$2 \ln 2 - \ln 5$$

(d) 
$$2 \ln \frac{2}{5}$$

Q 5. Find 
$$\int_{-1}^{1} (2e^x) dx = ?$$

(a) 
$$2\left(\frac{e^{2}-1}{1}\right)$$

(c) 
$$2(e^2)$$

(b) 
$$2\left(\frac{e^2}{e-1}\right)$$
  
(d)  $2(e^2 - 1)$ 

(d) 
$$2(e^2 - 1)$$

Q 6. Find 
$$\int_{1}^{2} \left(x^{2} + \frac{1}{x^{2}}\right) dx = 3$$

(b) 
$$\frac{17}{6}$$

(d) 
$$\frac{27}{6}$$

Q 7. Find 
$$\int_e^{e^2} \frac{dx}{x} = ?$$

(d) 
$$\frac{1}{e}$$

Q 8. Find 
$$\int_0^{\frac{\pi}{2}} \sin\left(2x + \frac{\pi}{4}\right) dx = ?$$

(a) 
$$\frac{1}{2}$$

(b) 
$$\frac{1}{\sqrt{2}}$$



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(c) 
$$\frac{1}{2\sqrt{2}}$$

(d) 
$$\sqrt{2}$$

- Find  $\int_0^1 \frac{1}{(x+1)} dx = ?$ Q 9.
  - (a) zero

(b) ln 2

(c) ln 3

- (d) 2 ln 2
- Q 10. Find  $\int_{-1}^{1} (3x + 2)^3 dx = ?$ (a) 50

(b) 51

(c) 52

(d) 53

- Q 11. Find  $\int_0^4 \frac{1}{\sqrt{x}} dx = ?$

(b) 2

(a) 1 (c) 3

- (d) 4
- Q 12. Find  $\int_0^{\frac{\pi}{2}} (e^x + \sin x) dx = ?$ (a)  $e^{\frac{\pi}{2}}$ (c)  $e^{\frac{\pi}{2}} 1$

- (b)  $e^{\frac{\pi}{2}}$
- (d) 1

## **Answer Key**

Q.1 b	Q.2 c	Q.3 b	Q.4 d	Q.5 a
Q.6 b	Q.7 a	Q.8 b	Q.9 b	Q.10 c
Q.11 d	Q.12 a			