

Solution
PHYSICS
MHT - CET - Physics

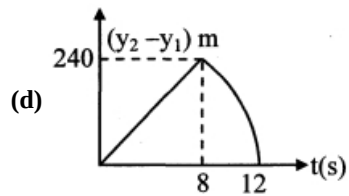
1.

(c) $y = x \left[1 - \frac{gx}{400} \right]$

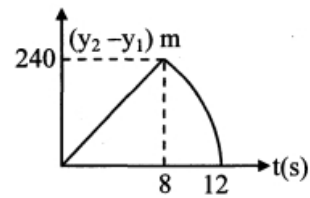
Explanation:

$y = x \left[1 - \frac{gx}{400} \right]$

2.



Explanation:



3.

(d) 3 ms^{-2}

Explanation:

3 ms^{-2}

4.

(d) option (i)

Explanation:

on the line joining the particles

5.

(d) $1 : 2\sqrt{2}$

Explanation:

$1 : 2\sqrt{2}$

6.

(d) $3R$

Explanation:

$3R$

7.

(d) $\log(\theta - \theta_0) = -Kt + c$

Explanation:

$\log(\theta - \theta_0) = -Kt + c$

8.

(b) first increases and then decreases.

Explanation:

first increases and then decreases.

9. (a) pressure of medium.

Explanation:

pressure of medium.

10.

- (b) isothermal

Explanation:

isothermal

11.

- (c) 30° for both the colours.

Explanation:

30° for both the colours.

12.

- (d) 32 cm

Explanation:

32 cm

13. (a) zero

Explanation:

zero

14.

- (d) surface charge density

Explanation:

surface charge density

15.

- (b) option (c)

Explanation:

there will be a steady current from p-side to n-side.

16.

- (c) 24 rad/s

Explanation:

24 rad/s

17. (a) 6 rad/s^2

Explanation:

6 rad/s^2

18.

- (d) $\frac{1}{2\sqrt{3}} \text{ m}$

Explanation:

$\frac{1}{2\sqrt{3}} \text{ m}$

19. (a) 2

Explanation:

2

20.

(d) $x = 5 \sin\left(100\pi t + \frac{\pi}{6}\right)$

Explanation:

$x = 5 \sin\left(100\pi t + \frac{\pi}{6}\right)$

21.

(b) $2\pi \sqrt{\frac{x_2^2 - x_1^2}{v_1^2 - v_2^2}}$

Explanation:

$2\pi \sqrt{\frac{x_2^2 - x_1^2}{v_1^2 - v_2^2}}$

22. (a) π rad

Explanation:

π rad

23.

(d) 220 V

Explanation:

220 V

24.

(d) $\frac{L}{\sqrt{2\pi}}$

Explanation:

$\frac{L}{\sqrt{2\pi}}$

25.

(b) $A_v = \text{constant}$

Explanation:

$A_v = \text{constant}$

26. (a) Option (a)

Explanation:

same frequency as that of external periodic force.

27. (a) 384 m/s

Explanation:

384 m/s

28.

(c) 1838 m/s

Explanation:

1838 m/s

29.

(b) 11RT

Explanation:

11RT

30.

(c) $\frac{V}{RT}(P - P')$

Explanation:

$\frac{V}{RT}(P - P')$

31. **(b)** $12 \mu\text{F}$
Explanation:
 $12 \mu\text{F}$
32. **(a)** $\frac{C}{3}, 3\text{V}$
Explanation:
 $\frac{C}{3}, 3\text{V}$
33. **(a)** charge flows from the battery to the capacitor.
Explanation:
charge flows from the battery to the capacitor.
34. **(d)** intensities of individual sources are 25 and 9 units respectively
Explanation:
intensities of individual sources are 25 and 9 units respectively
35. **(c)** planar
Explanation:
planar
36. **(d)** different wavelengths.
Explanation:
different wavelengths.
37. **(b)** 2
Explanation:
2
38. **(b)** 26Ω
Explanation:
 26Ω
39. **(a)** 2 : 1
Explanation:
2 : 1
40. **(b)** $31.4 \times 10^{-3} \text{T}$
Explanation:
 $31.4 \times 10^{-3} \text{T}$
41. **(a)** 4 : 1
Explanation:
4 : 1
42. **(d)** the current source

Explanation:
the current source

43.

(d) 5 mH

Explanation:

5 mH

44.

(c) 0.2 A

Explanation:

0.2 A

45.

(a) $\frac{W_0(v_2 - v_1)}{v_1 V_2 - v_2 V_1}$

Explanation:

$\frac{W_0(v_2 - v_1)}{v_1 V_2 - v_2 V_1}$

46.

(b) $\frac{r}{2}$

Explanation:

$\frac{r}{2}$

47.

(d) alpha rays

Explanation:

alpha rays

48.

(d) $n_1 = 2$ to $n_2 = 1$

Explanation:

$n_1 = 2$ to $n_2 = 1$

49.

(a) 24 mA

Explanation:

24 mA

50.

(c) 39 °C

Explanation:

39 °C

SATISH SCIENCE
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