

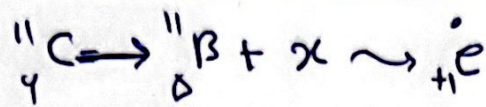
نوین کنکور

کنکور

امتحان نهایی

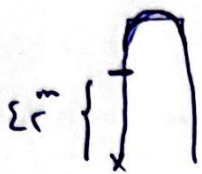
**نوین کنکور
شرط لازم و کافی
برای موفقیت**

novinkonkor.com



۲ (۴۱)

۳ (۴۲)



$$K_f = \frac{v_i}{v_i} K_i$$

$$\frac{1}{2} m v_i^2 = \frac{v}{v_i} \frac{1}{2} m v_i^2$$

$$v_f = \sqrt{v_i v_i}$$

$$v_i^2 = rgh + v_f^2$$

$$v_i^2 = rgh + v_f^2$$

$$\frac{1}{2} m v_i^2 = \frac{1}{2} m v_f^2$$

$$v_i = \sqrt{v_f^2}$$

$$h = \frac{v_i^2}{2g} = \frac{v_i^2}{2g} = (14)$$

۱۲ (۴۳)

$$L_f = L_i (1 + \alpha \Delta \theta)$$

$$q_{p0}, q = q_{-} (1 + 1.2 \times 10^{-5} \Delta \theta) \rightarrow \Delta \theta = 1.0 \text{ } ^\circ$$

۱ (۴۴)

۲ (۴۵)

$$x_A = x_B \Rightarrow \frac{1}{2} a t^2 + v_i t = \frac{1}{2} (a + \Delta) (t - \tau)^2 + 0 \cdot \tau$$

$$a \times 37 = (a + 0.1 \Delta) (37)^2 \rightarrow a = 0.1 \text{ } \frac{\text{m}}{\text{s}^2}$$

$$|x_A - x_B| = \frac{1}{2} \times 0.1 \times 100 - \frac{1}{2} \times 0.1 \times 100 = 1.1 \text{ m}$$

$$\left. \begin{matrix} v_i \\ v_f \\ \dots \end{matrix} \right\} \begin{matrix} \delta_{10} \\ \delta_{20} \\ \dots \end{matrix}$$

۴ (۴۶)

۲ (۴۷)

$$\Delta x = v t = 2.0 \times 1 = 2.0 \text{ m} \rightarrow n.0$$

$$x_A = x_B$$

$$\frac{1}{2} (-2) t^2 + 1t + 24 = \frac{1}{2} (-2) (t-1)^2 + 2.0 (t-1) + 2.0 t$$

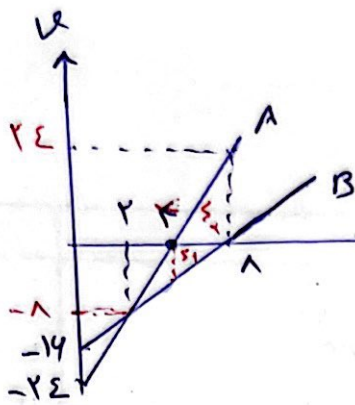
$$-t^2 + 1t + 24 = -2(t^2 - 2t + 1) + 2.0(t-1) + 2.0 t \rightarrow t = 3 \text{ s}$$

برابر A

$$t-1 = 3 \text{ s} \leftarrow \text{برابر B}$$

$$v = at + v_i = -2 \times 3 + 2.0 = -4 \text{ m/s}$$

در روز پنجشنبه
۰۹۱۴۱۰۰۷۰۲۳



$$s_1 = \frac{\sum x(-1)}{2} = -17$$

$$s_2 = \frac{\sum x \cdot 28}{2} = 28$$

$$17 + 28 = 45$$

3 (F1)

$$\vec{P} = (3t - 4) \vec{i}$$

$$F = \frac{\Delta P}{\Delta t} = \frac{3 - (-3)}{3 - 1} = \frac{6}{2} = 3 \vec{i}$$

2 (F9)

1 (d0)



$$F - f_k = ma$$

$$24 - 7 \times 0.4 = 0.4a$$

$$a = 1.2$$

$$R = \sqrt{f_k^2 + f_n^2}$$

$$R = \sqrt{2.8^2 + 1.2^2} = 1.4 \sqrt{29}$$

3 (a1)

$$F = m \frac{v^2}{R} = 2 \times 10^3 \times \frac{4}{2} = 4000 \text{ N}$$

2 (d2)

$$f_n = \frac{h v}{\lambda} \rightarrow v_n = \frac{v}{\lambda \times 0.4}$$

$$v = 1.2$$

$$f_1 = \frac{1 v}{\lambda} = 1.2$$

3 (d3)

$$\Delta \beta = 1. \log \left(\frac{P_2}{P_1} \times \left(\frac{r_1}{r_2} \right)^2 \right) = 1. \log \left(2 \times \left(\frac{1}{2} \right)^2 \right) = 1. \log 1 = 0 \text{ dB}$$

4 (d4)

3 (d5)

$$\frac{114.8}{100} = \sqrt{\frac{L_2}{L_1}} \Rightarrow$$

$$\frac{9}{1} = \sqrt{\frac{L_1 + 14}{L_1}} \rightarrow \frac{81}{9} = \frac{L_1 + 14}{L_1}$$

$$\frac{81}{9} = \frac{L_1 + 14}{L_1}$$

$$L_1 = 45 \text{ cm}$$

$$T = 2\pi \sqrt{\frac{L}{g}} = 2\pi \sqrt{\frac{0.45}{9.8}} = 2 \times 0.42 = 0.84 \text{ s}$$

مطلوبه جواب

0.84 s

1 24

∇ (δV)

1 21

$$-\frac{1}{n^{\prime r}} + \frac{1}{n^r} = \frac{12,78}{12,9} = \frac{288}{299} = 0,9 \quad \begin{cases} n' = K \\ n = 1 \end{cases}$$

2 29

κ 4%

3 41




$$+ \frac{\ominus}{\pi} -$$

1 (42)

$$E_T = \frac{q\sqrt{r \times l.}^r}{rc} \quad \star$$

$$\left. \begin{aligned} E_r &= \frac{1 \times 1.2}{r^2} \\ E_r &= \frac{2 \times 1.2}{r^2} \end{aligned} \right\} \frac{9 \times 1.2}{r^2}$$

$$E_r = \frac{rV \times 10^9}{r^2}$$

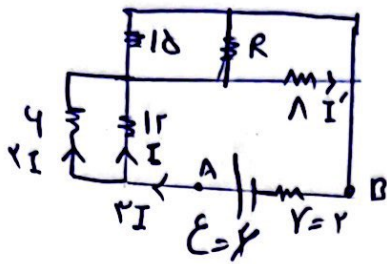
$$\rightarrow E_1 = \frac{q \times 10^9}{r^2}$$

$$E'_T = \frac{q x_1^r}{h^c} (\sqrt{1+A}) = \frac{q \sqrt{r_0}}{r^c} x_1^r$$

$$\frac{E'}{E} = \frac{\sqrt{12}}{\sqrt{2}} = \sqrt{6}$$

با حذف ۹۲ :

~~Q) = \frac{(V_1 \times x_1)}{r_c}~~



2 (4f)

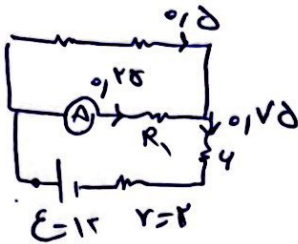
$$V_A - 12I - 12I' - 2(3I) + 4 = V_A$$

$$9 \quad 12I' = 4(3I) \\ I' = \frac{1}{3}I$$

$$-12I - 12\left(\frac{1}{3}I\right) - 4I + 4 = 0 \\ I = \frac{1}{8}A \quad I' = \frac{1}{24}A$$

$$V = RI \rightarrow I_{(1.2)} = \frac{0}{1} = 0$$

2 (4d)



$$V(4) = RI = 4 \times \frac{1}{2} = 2V$$

$$V = E - rI = 10V$$

$$V(R_1) = 10V - 2V = 8V \rightarrow 8V = R_1 \times 0.2A$$

$$R_1 = 40\Omega$$

$$(1) \text{ حل } V = R_T I_T = 2R \times \frac{E}{2R + R_T} = \frac{4E}{3R}$$

3 (4g)

$$(2) \text{ حل } V' = R_T I_T = 2R \times \frac{E}{\frac{R}{2} + 2R} = \frac{4E}{5R}$$

$$\frac{V'}{V} = \frac{\frac{4E}{5R}}{\frac{4E}{3R}} = \frac{3}{5}$$

$$B_1 = \frac{\mu \cdot NI}{2r} = \frac{1.2 \times 10^{-6} \times 1 \times 0.1}{2 \times 10 \times 10^{-2}} = 6 \times 10^{-9} T$$

$$B_{12} = 2\sqrt{2} \times 10^{-9} T$$

$$B_T = 10^{-9} \left(\sqrt{(2\sqrt{2})^2 + 2^2} \right) = 2\sqrt{2} \times 10^{-9} T$$

1 (4v)

$$L = k \frac{\mu \cdot N^2 A}{l} = \frac{4\pi \times 10^{-7} \times 10^4 \times 1 \times 10^{-2}}{10 \times 10^{-2}} = 4 \times 10^{-3} H$$

4 (4g)

$$\mathcal{E} = -\frac{N \Delta \Phi}{\Delta t} = -\frac{3.14 \times 10^3 \times 10^{-2} \times 10^{-2} \times 10^{-2} \times 1}{10 \times 10^{-2}} = 0.314 V$$

1 (4v)

مجموع
0.314 + 0.314 = 0.628

۴ (VI)

$$P = \frac{F}{A} \rightarrow m \times l = l \cdot \Delta \times \Delta x l^{-4} \quad m = \Delta \cdot g r$$

۴ (VII)

$$W = K_f - K_i \Rightarrow F_T d \cos \theta = \Delta K$$

1 (VIII)

$$\Delta K = F_{\text{net}} \times \Delta x_{\text{of}} - F_{\text{net}} \times \Delta = F_{\text{net}} \cdot j$$

۴ (IX)

$$\theta_e = \frac{m_1 g \theta_1 + m_2 g \theta_2 + \dots}{m_1 c_1 + m_2 c_2 + \dots} = \frac{\lambda_0 \times \Sigma \dots \times \gamma_0 + \gamma_0 \times \Sigma \dots \times \lambda_0 + \gamma_0 \times \Sigma \dots \times \gamma_0}{\lambda_0 \times \Sigma \dots + \gamma_0 \times \Sigma \dots + \gamma_0 \times \Sigma \dots} = 32^\circ$$

۳ (X)

$$P_1 v_1 = P_2 v_2$$

$$\left(P_1 + \frac{1 \cdot v_1 \cdot \Delta}{\Delta \cdot x l^{-4}} \right) \times F_1 A = \left(P_2 + \frac{1 \cdot v_1 \cdot \Delta + 9 \times 1 \cdot v_1 \cdot \Delta}{\Delta \cdot x l^{-4}} \right) \times F_2 A \rightarrow P_1 = 91 \dots P_2$$

سرگرمی
۰۹۱۴۱۰۷۰۲۳

نوین کنکور

کنکور

امتحان نهایی

**نوین کنکور
شرط لازم و کافی
برای موفقیت**

novinkonkor.com