

نوین کنکور

کنکور

امتحان نهایی

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

novinkonkor.com

پاسخ نامہ سوالات فیزکس کنکور ۱۴۳۲ فوب اول ۱۴۳۲ اردو سہ ۱۴۳۲

$$x = vt + x_0$$

$$\Delta x = v \Delta t$$

$$(24 - 1) = v(11 - 6)$$

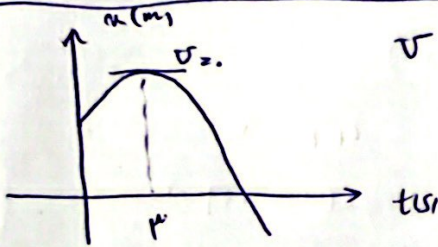
$$18 = 5v \quad (v = 3.6)$$

$$\rightarrow x = 3.6t + x_0$$

$$x = 3.6t - 2$$

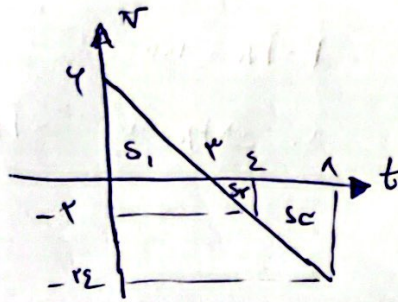
۲ (۴۶)

لفظ حسن



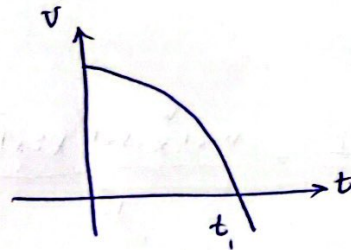
$$a = -2 \frac{m}{s^2}$$

$$v = at + v_0 \xrightarrow[t=3]{v_0} v_0 = 4 \frac{m}{s}$$

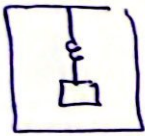


$$\frac{l_{t=0 \rightarrow 4s}}{l_{t=4 \rightarrow 6s}} = \frac{S_1 + S_2}{S_3} = \frac{4 + 1}{2} = \frac{5}{2}$$

۳ (۲۹)



v_0
ac. ...



$$mg - k\Delta x = ma$$

$$1. - 2. \Delta x = 2$$

$$2. \Delta x = 14$$

$$\Delta x = \frac{14}{2} \times 1. = \boxed{7 \text{ cm}}$$

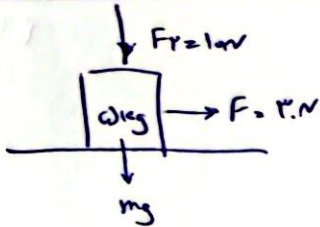
$$x_2 - x_1 = 2$$

$$x_2 - x_1 = 2$$

$$x = 7 \text{ cm}$$

فرض حسب

2(a)



$$F - F_k = ma$$

$$a = 2$$

$$1. - F_k = 2 \times 2 \rightarrow F_k = 2 \times 2 = 4$$

$$\mu_k (mg + F_c) = 2$$

$$\mu_k (10 + 1) = 2$$

$$\mu_k = \frac{1}{11}$$

$$F - F_k = ma$$

$$1. - F_k = -1. \rightarrow F_k = 2. \rightarrow \mu_k F_N = 2.$$

$$F_N = 11. \rightarrow F_N = mg + F_c = 11.$$

$$F'_c = 11. - 1. = \boxed{10 \text{ N}}$$

$$\Delta F = F'_c - F_c = 10. - 1. = 9 \text{ N}$$

2(a)

$$\Delta t = 10$$

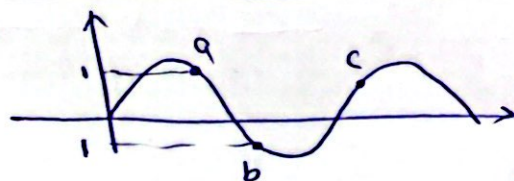
$$F = ma = \frac{m \Delta v}{\Delta t}$$

$$\frac{4. (-10 - 2)}{10} = -4000$$

$$V_1 = \frac{155 \text{ km}}{h} = 2. \frac{m}{s}$$

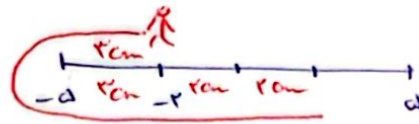
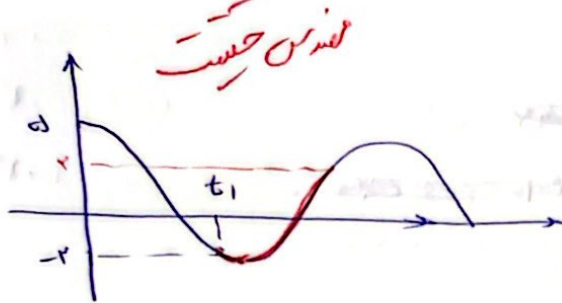
$$V_2 = -\frac{14 \text{ km}}{h} = -1. \frac{m}{s}$$

$$\rightarrow \Delta V = -2. \frac{m}{s}$$



فرض حسب

1(a)



۲ (۵۲)

$$\lambda = \lambda A = \frac{v}{f}$$

$$T = \frac{1}{f} \quad \text{و} \quad 1.0 \text{ cm} = (r + r + r + r)$$

سرعت صوت در جامدات < سرعت صوت در مایعات < سرعت صوت در هوا

۳ (۵۵)

از فرکانس

$$\begin{aligned} \lambda &= v_1 t_1 \rightarrow t_1 = \frac{\lambda}{v_1} \\ \lambda &= v_r t_r \rightarrow t_r = \frac{\lambda}{v_r} \end{aligned}$$

$$\Delta t = t_r - t_1 = \frac{\lambda}{v_r} - \frac{\lambda}{v_1}$$

$$\Delta t = \frac{(v_1 - v_r) \lambda}{v_1 v_r}$$

۴ (۵۶)

$$f = \frac{v}{\lambda}$$

$$\lambda = \frac{v}{f}$$

$$\lambda = \frac{a}{r} \times 10^{-4}$$

$$v = \lambda f \rightarrow \frac{a}{r} \times 10^{-4} \times \frac{v}{\lambda} = \frac{v}{r} \times 10^{-4} = \frac{a}{r} \times 10^{-4} = \frac{v}{r} \times 10^{-4}$$

$$v = \frac{c}{n} \rightarrow n = \frac{c}{v} = \frac{r}{\frac{a}{r}} = \frac{r^2}{a} = \frac{r}{a} = \frac{r}{a}$$

۵ (۵۷)

فردین حسینی

۶ (۵۸)

$$E = hf = \frac{hc}{\lambda}$$

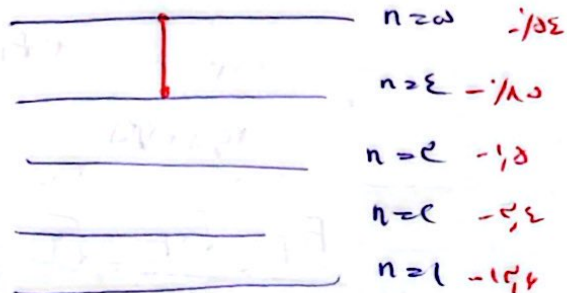
۱ (۵۹)

$$\lambda_{\max} \rightarrow E_{\Delta} \rightarrow E_{\Sigma} \rightarrow \Delta E = \frac{hc}{\lambda_1}$$

$$\lambda_{\min} \rightarrow E_r \rightarrow E_i \rightarrow \Delta E = \frac{hc}{\lambda_2}$$

$$\lambda_{\max} - \lambda_{\min} \rightarrow \Delta E_{\max} - \Delta E_{\min} = \frac{hc}{\lambda_1} - \frac{hc}{\lambda_2} = 9.14 \text{ eV}$$

$$9.14 \text{ eV} \times 1.6 \times 10^{-19} = 1.46 \times 10^{-18}$$



2

$$\frac{1}{\lambda} = 1.5 \left(\frac{1}{n^2} - \frac{1}{n^2} \right)$$

$$1.527 < \lambda < 2$$

$$n_1 = 1.5, n_2 = 1.5$$

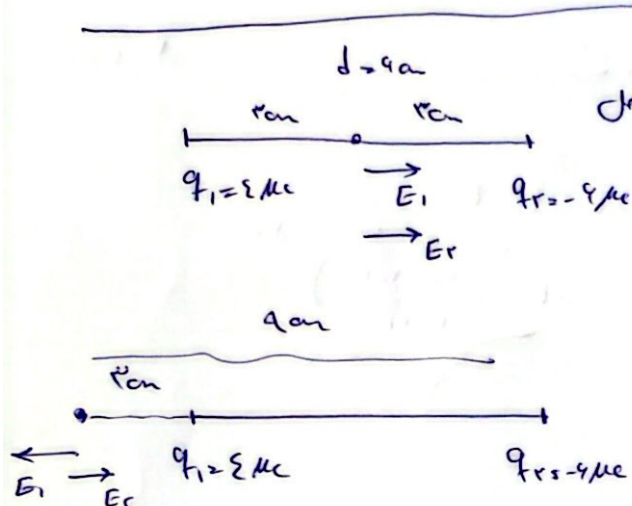
$$n_1 = 1.5, n_2 = 1.5$$

$$\frac{1}{\lambda} = 1.5 \left(\frac{1}{a} - \frac{1}{\lambda} \right)$$

$$2.5 < \lambda < 7.5$$

فردن حسی

$$\lambda = \frac{2 \times 10^{-7}}{2} \times 1.5 = 1.5 \times 10^{-7} \text{ m}$$



دو بار

$$E_T = E_1 + E_2 = \frac{kq_1}{r_1^2} + \frac{kq_2}{r_2^2}$$

$$\frac{2 \times 10^{-6} \times 9 \times 10^9}{(10^{-2})^2} + \frac{4 \times 10^{-6} \times 9 \times 10^9}{(2 \times 10^{-2})^2} = 10 \times 10^5 = 10^6 \text{ V/m}$$

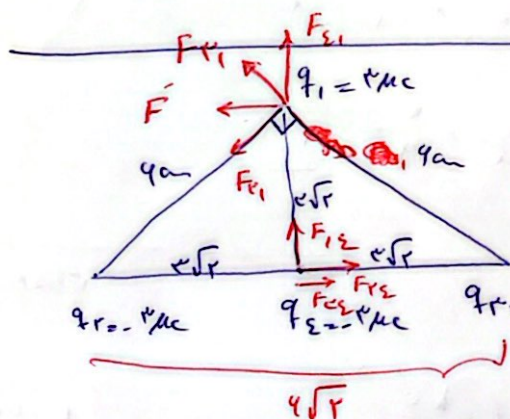
دو بار

$$E_T = E_1 - E_2 = \frac{kq_1}{r_1^2} - \frac{kq_2}{r_2^2}$$

$$\frac{2 \times 10^{-6} \times 9 \times 10^9}{(10^{-2})^2} - \frac{4 \times 10^{-6} \times 9 \times 10^9}{(2 \times 10^{-2})^2} = 10 \times 10^5 = 10^6 \text{ V/m}$$

$$\frac{E}{E'} = \frac{10 \times 10^5}{10^6} = 1$$

فردن حسی



$$F_{12} = F_{21} = \frac{q_1 q_2}{r^2} = \frac{2 \times 4 \times 10^{-6}}{(4a)^2} = \frac{2 \times 4 \times 10^{-6}}{16a^2} = \frac{1}{2} \times 10^{-6} \text{ N}$$

$$F = \sqrt{F_{12}^2 + F_{13}^2} = 2 \times 10^{-6} \text{ N}$$

ریشه است

$$F_T = F + F_{12}, F_{12} = \frac{q_1 q_2}{1a} = 2 \times 10^{-6} \text{ N}$$

$$F_T = \sqrt{2 \times 10^{-6} + 2 \times 10^{-6}} = 2 \times 10^{-6} \text{ N}$$

$$F_T = F_{12} + F_{13} = 2 \times 10^{-6} + 2 \times 10^{-6} = 4 \times 10^{-6} \text{ N}$$

$$F_{12} = \frac{q_1 q_2}{1a} = 2 \times 10^{-6} \text{ N}, F_{13} = \frac{q_1 q_3}{1a} = 2 \times 10^{-6} \text{ N}$$

$$F_T = \sqrt{2 \times 10^{-6} + 2 \times 10^{-6}} = \sqrt{4 \times 10^{-6}} = 2 \times 10^{-6} \text{ N}$$

$$\frac{F_T}{F} = \frac{2 \times 10^{-6}}{2 \times 10^{-6}} = 1$$

$q = 2.0 \mu c$

۵. فاصله بین صفحات $\rightarrow \frac{dc}{d_1} = 1.5$
اذاً

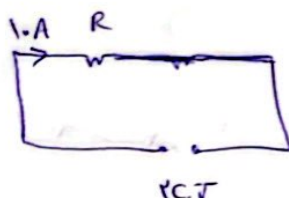
$$\frac{C_r}{C_i} = \frac{k_r}{k_i} \cdot \frac{A_c}{A_i} \cdot \frac{d_i}{d_r} = \frac{r}{R}$$

$$\frac{v_r}{v_i} = \left(\frac{q_r}{q_i} \right)^r \left(\frac{c_i}{c_r} \right) = \frac{v}{v}$$

$$U_1 = \frac{1}{r} \frac{q^r}{c} = \frac{1}{r} \frac{\sum \alpha_i^2 \alpha_i^{-1r}}{d \alpha_i^{-r}} = 1/\sum \alpha_i^{-r} = \sum m_j$$

$$U_T = \frac{1}{2} \Delta U_1 = 4 \text{ mJ}$$

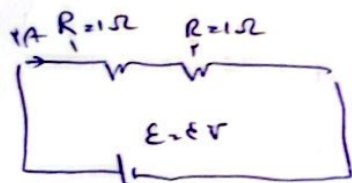
$$\Delta U = \gamma m_f$$



$$U = P \times t = V I t$$

$$\frac{P_0 \times 1 - X (P_0 \times \Delta \times \Delta)}{1000}$$

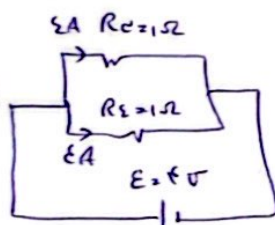
$$\frac{22 \times 10 \times 10^2}{1.8} = \frac{14 \times 10^2}{1.8} = 19 \text{ d.}$$



$$I_2 = \frac{K}{r} = 2A$$

for $P_1 = 2W$

$P_r = 2w$ موزی



$$I = \frac{E}{r\omega} = 1A$$

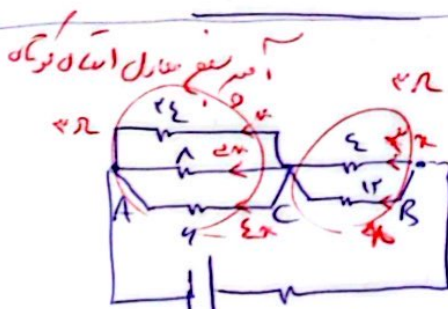
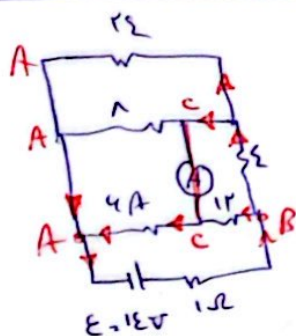
$$P_T = R \int_T = \Sigma W$$

$$P_L \approx \Sigma W$$

(۹۷) ۳ من اخرونی با مال عدم فرعی

$R = 1 \Omega$

$$\mathcal{E} = \kappa V$$



$$E = 12V \quad r = 1\Omega$$

$$I = \frac{12}{4+1} = 2A$$

$$f_n = \gamma A \rightarrow n = \gamma \omega A \quad \underline{\gamma} \quad (77)$$

$$F_n + F_{n-1} + a = rA$$

$$\rightarrow \underline{r = \frac{1}{\Sigma} A}$$

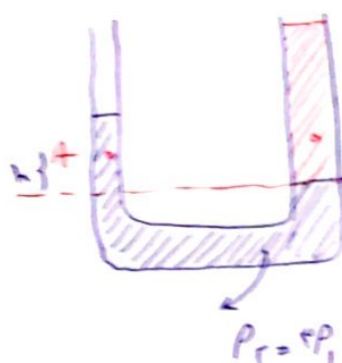
$$I_{(A)} = I_{4\Omega} - I_{12\Omega}$$

$$f(x) = x \cdot \sqrt{x}$$

الفصل الخامس

$$Q = BA \cos \theta = (5 \times 10^{-2}) (2 \times 10^{-2}) \times (1) = 10^{-4} \text{ m}^2 = 10^{-4} \text{ m}^2 \quad \Sigma (17)$$

17h



$$\Delta P = \Delta \rho g h$$

من سطح مفتوحة
في سطح مغلقة

$$(P_2 - P_1) g h = \rho g h$$

$$P_2 = P_1$$

17g

$$\frac{v_c}{v_i} = \frac{\Delta}{\epsilon}$$

$$\frac{k_r}{k_i} = \frac{m_r}{m_i} \times \left(\frac{v_c}{v_i} \right)^2$$

$$1 = \frac{m_r}{m_i} \times \frac{17}{17} \rightarrow \frac{m_r}{m_i} = \frac{17}{17}$$

$$\frac{m_r}{m_i} = \frac{17}{17}$$

الكتلة / الكتلة

$$W = F d \cos \theta$$

$$W = 10 \times 10 \times (1) = 100 \text{ J}$$

$$F = 10\mathbf{i} + 10\mathbf{j}$$

$$d = 10\mathbf{i}$$

17v

17v

$$\frac{\text{kg m}^2}{\text{A s}^2}$$

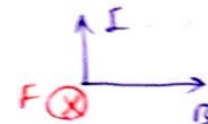
$$B = \frac{F}{\Delta L} = \frac{N}{m \cdot A} = \frac{\text{kg m}^2}{\text{s}^2} = \frac{\text{kg}}{\text{A s}^2}$$

$$Q = B \cdot A = \frac{\text{kg}}{\text{A s}^2} \cdot \text{m}^2 = \frac{\text{kg m}^2}{\text{A s}^2} = \text{Wb}$$

الفصل الخامس

0.9579.37492

17v



(x) 17v

✓

$$B = \frac{\mu_0 N I}{l} = \frac{1.257 \times 10^{-6} \times 200 \times 10}{0.2} = 1.257 \times 10^{-4} \text{ T} \quad \text{3/17/21}$$

لکھن جیسٹ

2/17/21

100 m / 100 m

$$Q = m c \Delta \theta + m L_f + m c \Delta \theta$$

$$c = 1$$

$$Q = \frac{m}{\epsilon} \left(\frac{1}{\epsilon} \right) \times 10 + 100 \frac{m}{\epsilon} + 10 \frac{m}{\epsilon} = 100 \frac{m}{\epsilon}$$

$$L_f = 100 \frac{m}{\epsilon}$$

$$c = 10$$

100 m / 100 m

$$Q' = m c \Delta \theta = 100 \frac{m}{\epsilon}$$

$$Q = Q'$$

$$100 \frac{m}{\epsilon} = 100 \frac{m}{\epsilon}$$

$$\frac{100}{\epsilon} = 100$$

لکھن جیسٹ

0947904795

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