



RJEŠENJA ISPITA DRŽAVNE MATURE IZ **FIZIKE**
U ŠKOLSKOJ GODINI 2022./2023. (jesenski rok)

BROJ ZADATKA	TOČAN ODGOVOR
1.	D
2.	A
3.	D
4.	A
5.	A
6.	A
7.	A
8.	C
9.	C
10.	B
11.	D
12.	B
13.	D
14.	D
15.	A
16.	B
17.	B
18.	A
19.	B
20.	C
21.	C
22.	B
23.	C
24.	D
25.	$v = \frac{2r\pi}{T}$ 1 bod $v = 5,03 \text{ m/s}$ 1 bod



26.	$\lambda = \frac{h}{mv}$ 1 bod $\frac{\lambda_p}{\lambda_e} = 5,99 \cdot 10^{14} = 6 \cdot 10^{14}$ 1 bod
27.	$F_L = qBv \sin \alpha$ 1 bod $F = ma$ 1 bod $a = 1,92 \cdot 10^{13} \text{ m/s}^2$ 1 bod
28.	$I = \frac{U}{R}$ 1 bod $I = \frac{U}{2R+R'}$ ili $U = 2U_z + U'$ 1 bod $\frac{R'}{R} = 3,14$ 1 bod
29.	$N = N_0 2^{-\frac{t}{T}}$ 1 bod $\Delta N = N_0 - N$ 1 bod $\Delta N = 1,56 \cdot 10^{23}$ 1 bod ili $\Delta N = N_0 \left(1 - 2^{-\frac{t}{T}}\right)$ 2 boda $\Delta N = 1,56 \cdot 10^{23}$ 1 bod
30.	30.1. 1. 1 bod 30.2. $n = \frac{\sin \alpha}{\sin \beta}$ 1 bod $n = 1,6$ 1 bod
31.	$v_{01} = \sqrt{v_0^2 + 2as}$ 1 bod $ma = -\mu mg$ 1 bod $d = v_{01} t_{pad}$ 1 bod $\mu = 0,43$ 1 bod
32.	$S_1 v_1 = S_2 v_2$ 1 bod $p_1 + \frac{1}{2} \rho v_1^2 = p_2 + \frac{1}{2} \rho v_2^2$ 1 bod $d_2 = 2,5 \text{ cm}$ 1 bod $\rho = 918,52 \text{ kg/m}^3$ 1 bod



33.	$W = p\Delta V = p(V_B - V_A)$ 1 bod $p_A V_A = p_C V_C$ 1 bod $U = \frac{3}{2}pV$ ili $U = \frac{3}{2}Nk_B T$ 1 bod $U = 3750 \text{ J}$ 1 bod
34.	$F_A = BIl \sin \alpha$ 1 bod $B = \mu_0 \mu_r \frac{I}{2r\pi}$ 1 bod $F = F_{23} - F_{13}$ 1 bod $F = 2,1 \cdot 10^{-4} \text{ N}$ 1 bod
35.	$I = \frac{P}{S}$ 1 bod $L = 10 \log_{10} \frac{I}{I_0}$ 1 bod $P_{\text{detektor}} = 0,8 P_{\text{izvor}}$ 1 bod $L = 59 \text{ dB}$ 1 bod