



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

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



26.	$\lambda = \frac{h}{mv}$	1 bod
	$\lambda = 1,32 \cdot 10^{-13} \text{ m}$	1 bod
27.	$F_L = qvB \sin \alpha$	1 bod
	$B = \mu_0 \mu_r \frac{I}{2r\pi}$	1 bod
	$F_L = 1,54 \cdot 10^{-19} \text{ N}$	1 bod
28.	$W = UIt, I = \frac{U}{R} \quad \text{ili} \quad W = \frac{U^2 t}{R}$	1 bod
	$R = \rho \frac{l}{S}$	1 bod
	$l_2 = 1,2 \text{ m}$	1 bod
29.	$N = N_0 2^{\frac{-t}{T}}$	1 bod
	$A = \frac{\ln 2}{T} N$	1 bod
	$N = 2,41 \cdot 10^{12}$	1 bod
30.	30.1. 4	1 bod
	30.2. $\frac{1}{a} + \frac{1}{b} = \frac{1}{f}$	1 bod
	$f = 4,26 \text{ cm}$	1 bod
31.	$(m_A + m_B)a = F - \mu g(m_A + m_B)$	1 bod
	$F_{NB} = m_B a + \mu m_B g$	1 bod
	$F_{NA} = m_A a + \mu m_A g$	1 bod
	$\Delta F_N = 6,25 \text{ N}$	1 bod



32.	$p_1 + \frac{\rho v_1^2}{2} = p_2 + \frac{\rho v_2^2}{2}$	1 bod
	$S_1 v_1 = S_2 v_2$	1 bod
	$q = \frac{V}{t}$ ili $V = Svt$	1 bod
	$t = 154,2 \text{ s}$	1 bod
33.	$W_{izobarni} = p\Delta V = p(V_B - V_A)$	1 bod
	$W_{BE} = W_{BC} + W_{CD} + W_{DE} = W_{CD}$	1 bod
	$U = \frac{3}{2}nRT = \frac{3}{2}pV$	1 bod
	$U = 4,5 \text{ kJ}$	1 bod
34.	$Uq = \frac{mv^2}{2}$	1 bod
	$F_L = F_{cp}$	1 bod
	$qvB = \frac{mv^2}{R}$	1 bod
	$q = 1,6 \cdot 10^{-19} \text{ C}$	1 bod
35.	$L = 10 \log \frac{I}{I_0}$	1 bod
	$I = \frac{P}{S}$	1 bod
	$\Delta L = L_1 - L_2$	1 bod
	$\Delta L = 0,31 \text{ dB}$	1 bod