



RJEŠENJA ISPITA DRŽAVNE MATURE IZ **FIZIKE**  
U ŠKOLSKOJ GODINI 2023./2024. (2. rok)

BROJ ZADATKA	TOČAN ODGOVOR
1.	C
2.	A
3.	B
4.	B
5.	D
6.	B
7.	D
8.	A
9.	D
10.	B
11.	D
12.	D
13.	B
14.	A
15.	A
16.	D
17.	D
18.	A
19.	B
20.	D
21.	A
22.	A
23.	D
24.	D
25.	$Q = W + \Delta U$ 1 bod $\Delta U = 10 \text{ kJ}$ 1 bod



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26.	$\omega = 2\pi f$	1 bod
	$f = 55 \text{ Hz}$	1 bod
27.	$E_k = W$	1 bod
	$E_k = \frac{mv^2}{2} \quad \text{i} \quad W = Fs$	1 bod
	$F = 50 \text{ N}$	1 bod
28.	$F_u = \rho g V_u$	1 bod
	$F_u = F_g \quad \text{ili} \quad F_u = 3 \text{ N}$	1 bod
	$\rho = 1200 \text{ kg/m}^3$	1 bod
29.	$Q = mc\Delta t \quad \text{i} \quad Q = m_L \lambda$	1 bod
	$m_{VC}(t - \tau) = m_L \lambda + m_{LC}(\tau - t_L)$	1 bod
	$\tau = 14,62 \text{ }^\circ\text{C}$	1 bod
30.	$\tan \alpha = \frac{n_2}{n_1}$	1 bod
	$\frac{\sin \alpha}{\sin \beta} = \frac{n_2}{n_1}$	1 bod
	$\beta = 36^\circ 56' 8''$	1 bod
31.	$m_1 v_1 = (m_1 + m_2)v$	1 bod
	$F_{tr} = \mu(m_1 + m_2)g \quad \text{i} \quad F = (m_1 + m_2)a$	1 bod
	$v^2 = v_0^2 + 2as$	1 bod
	$s = 1,44 \text{ m}$	1 bod



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32.	$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$	1 bod
	$P = \frac{U^2}{R}$	1 bod
	$P_I = 3P_{II}$	1 bod
	$R = 3 \Omega$	1 bod
33.	$P = \frac{U_i^2}{R}$	1 bod
	$U_i = Blv$	1 bod
	$s = vt$	1 bod
	$s = 5 \text{ m}$	1 bod
34.	$E_{uk} = E_k + E_p = \text{const.}$	1 bod
	$E_p = mgl(1 - \cos\theta)$	1 bod
	$E_p(5^\circ) = 0,7 E_{uk}$	1 bod
	$\theta_0 = 6^\circ$	1 bod
35.	$L = L_0 \sqrt{1 - \frac{v^2}{c^2}}$	1 bod
	$T = \frac{T_0}{\sqrt{1 - \frac{v^2}{c^2}}}$	1 bod
	$v = \sqrt{\frac{5}{9}}c = 0,745c$	1 bod
	$T_0 = \frac{2}{3}T = 0,67s$	1 bod