

## KLJUČ RJEŠENJA FIZIKA, JESEN DM 2012.

- 1.D.
- 2.C.
- 3.A.
- 4.A.
- 5.C.
- 6.C.
- 7.C.
- 8.B.
- 9.D.
- 10.D.
- 11.B.
- 12.C.
- 13.D.
- 14.B.
- 15.B.
- 16.A.
- 17.B.
- 18.C.
- 19.D.
- 20.D.
- 21.A.
- 22.A.
- 23.B.
- 24.A.

25.

$$F_{cp} = G \frac{m_{Sat} m_{st}}{r^2} \quad 1 \text{ bod}$$
$$m_{Sat} = \frac{F_{cp} r^2}{G m_{st}} = 5,7 \cdot 10^{26} \text{ kg} \quad 1 \text{ bod}$$

26.

$$\frac{1}{2} \frac{mv^2}{2} = mgh \quad 1 \text{ bod}$$
$$h = \frac{v^2}{4g} = 0,1 \text{ m} \quad 1 \text{ bod}$$

27.

$$\frac{V_1}{T_1} = \frac{V_2}{T_2}$$
$$\frac{V_1}{T_1} = \frac{2V_1}{600} \quad 1 \text{ bod}$$
$$T_1 = 300 \text{ K} \quad 1 \text{ bod}$$

28.

$$Z = \sqrt{R^2 + 1/(2\pi fC)^2} \quad 1 \text{ bod}$$
$$R = 376 \text{ } \Omega \quad 1 \text{ bod}$$

29.

$$d \sin \alpha = 2\lambda \quad 1 \text{ bod}$$
$$\alpha = 53^\circ \quad 1 \text{ bod}$$

**30.**

$$E = E_4 - E_2$$

1 bod

$$E = 2,55 \text{ eV}$$

1 bod

**31.**

$$v_a = 30 \text{ m/s}$$

1 bod

$$v_m = v_a + v_k = 55 \text{ m/s}$$

1 bod

$$t = \frac{s}{v_m}$$

1 bod

$$t = 7,3 \text{ s}$$

1 bod

**32.**

$$T_H = 300 \text{ K}, T_T = 600 \text{ K}$$

1 bod

$$\eta = 1 - T_H/T_T = 0,5$$

1 bod

$$\eta = \frac{W}{Q}$$

1 bod

$$W = 5 \text{ kJ}$$

1 bod

**33.1.**

Inducirani *napon* najveći je u vremenskom intervalu 5 s – 7 s.

1 bod

**33.2.**

$$\Delta\Phi = -0,005 \text{ Wb},$$

1 bod

$$\Delta t = 2 \text{ s}$$

1 bod

$$U_i = -N \frac{\Delta\Phi}{\Delta t} = 1,5 \text{ V}$$

1 bod

**34.**

$$v_o = 0,02 \text{ m/s}$$

1 bod

$$T = 6 \text{ s}$$

1 bod

$$a_o = 2\pi v_o/T$$

1 bod

$$a_o = 0,02 \text{ m/s}^2$$

1 bod

**35.**

$$E_{k \max} = h \frac{c}{\lambda} - W_i$$

1 bod

$$E_{k \max} = 2,16 \cdot 10^{-19} \text{ J}$$

1 bod

$$eU = E_{k \max}$$

1 bod

$$U = 1,35 \text{ V}$$

1 bod