

ΑΠΑΝΤΗΣΕΙΣ



ΘΕΜΑ Α

1.γ

2.β

3.β

4.Σ, Λ, Λ, Λ, Σ

5. Λ, Σ, Σ, Λ, Λ

ΘΕΜΑ Β

B1

β, $K_1=3U_1$: $t_1=T/12$, $K_2=U_2$: $t_2=T/8$, $\Delta t = t_2 - t_1 = T/24$

B2: β, (640Hz)

B3: α, (0,4π rad)

ΘΕΜΑ Γ

Γ1

$t_1=2s$, $t_2=3s$, $T=0,2s$, $\lambda=0,5s$

$\psi=0,5\sigma\sigma\nu 5\pi.\eta\mu 2\pi(5t-12,5)=0,5\eta\mu 10\pi t$

Γ2

$\psi=0,3m > A$, $A'=0,5m$ και $\omega=2\pi f=10\pi$ r/s

$$\omega = \pm \omega \sqrt{A'^2 - \psi^2} = \pm 4\pi \text{ m/s}$$

Γ3

$t_3=3s$, $v_3=5\pi$ m/s, $t_4=4s$, $v_4=5\pi$ m/s

$$W=K_4-K_3=0$$

Γ4

$t=37/12s > 3s$

$\psi=0,25m$

$$\frac{K}{U} = \frac{E-U}{U} = 3$$

ΘΕΜΑ Δ

Δ1

$\Delta m=0,9$ Kg

Δ2

$v_1=1$ m/s, $v_2=3$ m/s

Δ3

$\Delta\psi=0,4$ m

Δ4

$h=0,4$ m