Universidade Federal do Rio de Janeiro
Escola Politécnica

DATA / /

GRAUS

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Aluno(a): Gabarito

Disciplina:

Turma:

Professor(a): Marcelo Luiz R. Dias

(i) $\Delta t = \frac{2d}{c}$

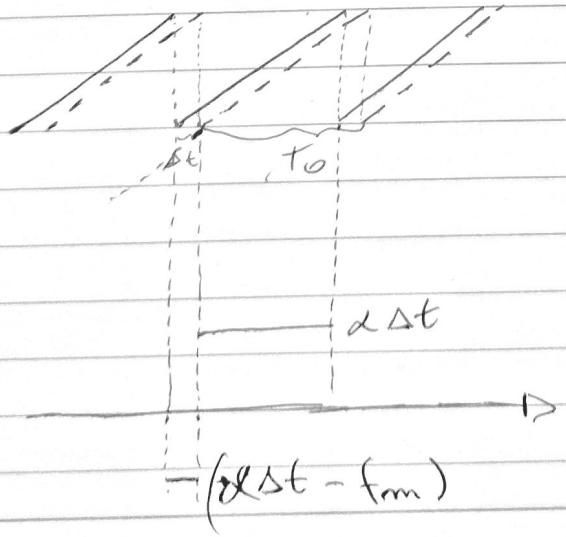
$\hat{x}(t) = C\, x(t - 2d/c)$ (2,5)

(ii) $\hat{f}_i(t) = f_i(t - 2d/c)$ (2,5)

(iii) $f_{i,m}(t) = f_i(t) - f_i(t - 2d/c)$

(2,5)

(iv)



Área Média:

$$\bar{f} = \frac{2\Delta f(T_0 - \Delta t) + (f_m - 2\Delta t)\cdot \Delta t}{T_0}$$

$$\bar{f} = 2\Delta t\underbrace{\left(\frac{T_0 - 2\Delta t}{T_0}\right)}_{\approx 1} + f_m \cdot \underbrace{\frac{\Delta t}{T_0}}_{\approx 0}$$

$$\boxed{\bar{f} \approx 2\Delta t = \frac{f_m}{T_0} \cdot \frac{2d}{c}} \quad (2,9)$$

(v) $1\ m \propto 1\ Hz = \boxed{\frac{2 f_m}{c \cdot T_0} \approx 1}$ (2,0)