Exercise problems from Lecture 17:

Q1. Calculate the ΔE for a ^{1}H-nucleous in a 1.41 Tesla applied magnetic field. (Given γ for proton = 267.572×10^{6} rad. $T^{-1}. s^{-1}$)

Q2. Calculate the resonating frequency (in Hz and MHz) of ^{1}H-nucleous in a 5.87 Tesla applied magnetic field. (Given γ for proton = 267.572×10^{6} rad. $T^{-1}. s^{-1}$)

Q3. Calculate the strength of applied magnetic field (B_o in Tesla), if the ^{1}H-nucluoeus resonate at; (given γ for proton = 267.572×10^{6} rad. $T^{-1}. s^{-1}$)

(i) 60 MHz (ii) 80 MHz (iii) 100 MHz

(iv) 200 MHz (v) 300 MHz and (v) 600 MHz