6th Ed. Associate CET Study Guide Errata Sheet

An updated version of the Associate CET Study Guide Errata Sheet can be found online at www.eta-i.org/6thEdASTErrataSheet.pdf

Resonance, Page 23

".0159" should be .159 and the square root sign should not be in the third step of the example:

$$f_r = \frac{.159}{\sqrt{(2 \times 10^{-4}) \times (2 \times 10^{-10})}}$$

$$f_r = \frac{159 \times 10^{-3}}{\sqrt{4 \times 10^{-14}}}$$

$$f_r = \frac{159 \times 10^{-3}}{2 \times 10^{-7}}$$

A further remark on the solution:

If you remember your order of math operation rules and your common denominator rules, use your calculator strokes as:

Take √LC as **200µH** times **200pF** (or .0002 times .0000000002 on your calculator). You then keystroke the √ {square root} key, resulting in .0000002 (or 2 x10-7 as you see in the equation).

Then you multiply .0000002 to 2 to the **π** button on your calculator. This results in .000001256637061 on the screen, your denominator. Then you keystroke the 1/X button resulting in 795,774.7154594766. Recall your answer choices above and the result is 795 kHz.

Be sure you know your Electronics Units!

AC Circuit Operations, Page 47

"13.2KΩ" should be 132.6KΩ in the formula below:

$$XC = \frac{1}{6.28 * 30 \times 10^{3} * 40 \times 10^{-12}} = 132.6\text{K}\,\Omega$$

AC Circuit Operations, Page 48

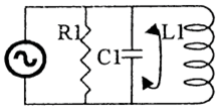
"W" should be an "Ω" symbol in R1, X_{L1} and X_{C1} below:

Source Voltage = 120V
Source Frequency = 50 KHz
L1 = 10mH
C1 = 100pF
R1 = 300Ω

BASED ON THE VALUES GIVEN

$X_{L1} = 6.28 * (50 \times 10^{3}) * (10 \times 10^{-3}) = 3.14\text{K}\Omega$

$X_{C1} = 1 / 6.28*(50 \times 10^{3})* (100 \times 10^{-12}) = 31.8\text{K}\Omega$



$I_{R1} = V_T / R1 = 400\text{mA}$

$I_{C1} = V_T/X_{C1} = 3.77\text{mA}$

$I_{L1} = V_T/X_{L1} = 38.2\text{mA}$

$I_T = \sqrt{Ir^2 + I_{XNET}^{\ 2}} = 401\text{mA}$

$I_{net} = I_{Ct} - I_{Lt}$

I_{net} represents only the out-of-phase currents

I_{XNET} = Difference between the Inductive and Capacitive Currents

Semiconductors, Page 74

"(highest voltage gain)" should be under #2 (not #1) and input should be "output" under #3:

1. **Common emitter** - like the circuit in Fig. 16
2. **Common base** - where the input signal is applied to the emitter rather than the base (highest voltage gain)
3. **Common collector** - has high input impedance (and low output impedance)

Chapter 9 Quiz, Page 78

#9 - C

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Chapter 8 Electronic Components, Page 68

The middle paragraph on the right side ("Thermacouple: A thermocouple is a junction...") Thermacouple should be Thermocouple.

Unit 5 Review Questions, Page 102

The Formulas for C. and D. on question #6, should be:

c. $1 + \left(\frac{Rf}{Ri}\right)$

d. $1 - \left(\frac{Rf}{Ri}\right)$

"c" is still correct.

Chapter 16 Flip-Flops: Sequential logic gates, Page 138

"S=0" should be "R=0" and the gates are NOR not NAND under the R-S Flip Flop diagram.

What input state on S will cause Q output to be high? The answer is: When R=0, then S=1, Q=1. You can prove this to yourself by looking back at NOR gate truth table to see that if any input is 1, the output for that NOR is 0.

Practice Exam #2, Page 202

The answer for Question #2 should be "a. Cache". Cache is internal, whereas Tape Drive (b.) is external memory.

and

The answer for Question #24 should be "d. 2.9 Ohms". The question asks for RESISTANCE, whose units are Ohms, but the correct calculation to use is R = E2 / P. You are given the Volts (E or V) and are given the Power (P or Watts) to find Resistance. "d. 2.9 Ohms" is correct => 144 / 50 = 2.88.

Common Formulas Sheet, Page 224

"Inductors connected in series" and "Inductors connected in parallel" are switched:

Inductors connected in series
$L = L_1 + L_2 + L_3 + ...$

Inductors connected in parallel
$1 \div L = (1 \div L_1) + (1 \div L_2) + (1 \div L_3) ...$