

Biology 200, Autumn 2009

Corrections and addenda to Problem Sets:

Week 4: Question 3, Column I, #8 should read "sterol" (not "steroid").

Week 5: Question 7, **letter i** should read: "Ribosome K has just synthesized the carboxyl terminus of the completed protein (the final protein product of this gene)."

Week 6: Question 2, in Column 3, the growth condition should be "no lactose, no glucose" for the top part of the table.

Question 9, the third paragraph after the diagram should read:

"Three different mutations were isolated that affect the ability of *E. coli* to produce **functional Xase enzyme**. When the inducer (X) is added to wild type *E. coli* cells, Xase is quickly synthesized; in the absence of inducer X, **very little Xase activity is present** (see the first line in the table below). The three mutations (a-, b-, and c-) affect the **presence of Xase activity differently**."

Also, the right hand column of the table should read "Units of Xase enzyme **ACTIVITY**".

DURING WEEK 7 OF THE COURSE: Do all of week 7 PS except #s 10, 11, 12, and 14

DURING WEEK 8 OF THE COURSE: Do all of week 10 PS except # 8, 9, 10, 11, 12. Also do all of week 11 PS except #5 and #s 7-10.

DURING WEEK 9 OF THE COURSE: Do week 7 PS, #s 10, 11, 12, and 14 and week 11 #s 7-10.

DURING WEEK 10 OF THE COURSE: Do all of week 8 PS

DURING WEEK 11 OF THE COURSE: Do all of week 9 PS and week 10, # 8.

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Corrections and addenda to Answers to Problem Sets:

Week 1+2: Question 8, part b should read: " $20^{200} \sim 10^{99}$ "

Week 3: Question 7 – note that the lettering is off (but the order is correct).

Question 7, part G (in the answer key) should read: "It depends on the concentrations of the reactants and products"

Week 4: Question 4, second part should read "Both – one atom is oxidized, the other is reduced".

Week 5: Question 6, part d should not include the sentence beginning "Degenerate"

Week 6: Question 4, part g should read "There would be no N enzyme made, but all others could be made, and should be regulated normally. However, the cell with this mutation would not be able to synthesize phenylalanine."

Week 7: Question 6, part g (optional answer, C: RNA pol does appear to have some proofreading ability).

Question 9 should have an X in the box for UTP and DNA replication (as a building block for the RNA primer).