UNIVERSITY OF CALIFORNIA
DEPARTMENT OF ECONOMICS

Economics 202A
Fall 2014
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Problem Set 6

NOT TO BE HANDED IN / NO ANSWERS WILL BE PROVIDED

1. In models where the allocation of resources to R&D is determined by market forces, the inputs that embody different ideas are typically modeled as:

A. Supplied in exogenously determined amounts.
B. Public goods.
C. Perfect substitutes for one another.
D. Imperfect substitutes for one another.

2. If the production function in country i is $Y_i = K_i^{\alpha}[A_iH_i]^{1-\alpha}$, $0 < \alpha < 1$, we could reasonably measure the contribution of differences in human capital to the difference in log income per worker between two countries, 1 and 2, as

A. $\ln(H_2/L_2) - \ln(H_1/L_1)$.
B. $[(1-\alpha)/\alpha][\ln(H_2/L_2) - \ln(H_1/L_1)]$.
C. $\alpha\ln K_2 + (1-\alpha)[\ln A_2 + \ln H_2] - \{\alpha\ln K_1 + (1-\alpha)[\ln A_1 + \ln H_1]\}$.
D. $\ln(H_2/Y_2) - \ln(H_1/Y_1)$.

3. The following is an example of income differences NOT due to differences in social infrastructure:

A. Country A has a better functioning legal system than Country B; as a result, fewer resources are devoted to litigation in Country A than in Country B.

B. Country A has higher equipment investment than Country B because of more favorable tax treatment; equipment investment has large externalities, so the difference in equipment investment translates into a large difference in income per worker.

C. Because of a government-sponsored religious campaign, the citizens of Country A become much more honest than those of Country B; as a result, output per worker is higher in Country A than in Country B.

D. None of the above.

4.–8. Romer, Problems 4.1, 4.3, 4.4, 4.7, 4.9.

EXTRA EXTRA PROBLEMS (not directly related to the material you are responsible for on the exam)

9.–10. Romer, Problems 4.10 and 4.11.