

Quiz 1 — Unemployment

Questions	Answers
1. At the steady state, the unemployment rate is:	☐ Structural. ☐ Cyclical. ☐ Long-run. ☐ Natural. ☐ None of the above.
2. At date t , $U_t = U_{t-1} + S_t - F_t$:	☐ $S_t - F_t$ is the net inflow into unemployment. ☐ U_t is a flow of unemployed people. ☐ U_t lies in $[0; 1]$. ☐ S_t lies in $[0; 1]$ and is called the separation rate.
3. (Discrete time.) If f is the instantaneous probability of leaving unemployment:	☐ The event “leaving unemployment in the third period” has probability $f(1 - f)^2$. ☐ The average duration of unemployment equals f . ☐ The average duration of employment equals $1/f$.
4. The structural unemployment rate is $u = \frac{s}{s+f}$:	☐ This relies on the assumption that the labor force is constant and equal to $\bar{L}$. ☐ This relies on the assumption of full employment. ☐ None of the above.
5. The labor market is dual because:	☐ On one side insiders are very well protected, and on the other outsiders suffer the precariousness of fixed-term contracts. ☐ On one side there are unemployed people, and on the other there are people who work. ☐ On one side there are vacancies (the vacancy schedule), and on the other there are people looking for work.

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6. The elasticity of labor supply with respect to the wage:	☐ Is zero, because a 1% rise in the wage does not change the percentage of labor supplied. ☐ Follows from setting marginal cost equal to marginal productivity when firms maximize profit over the labor input. ☐ Equals $\frac{w}{L^s} \frac{dL^s}{dw}$. ☐ None of the above.
7. The matching rate $f(I, M, v)$:	☐ Depends positively on the quality of information I . ☐ Depends negatively on the heterogeneity M of workers and jobs. ☐ Depends positively on the intensity v of job search.
8. From the course, $u = \frac{s}{s+f}$:	☐ If the economy is at the steady state and f falls after a policy shock, it reaches a new equilibrium with a higher long-run unemployment rate. ☐ If the economy is at the steady state and f falls after a policy shock, nothing changes. ☐ u can be read as an elasticity. ☐ If s rises, u rises. ☐ This result follows from the assumption that the inflows into and outflows from unemployment are proportional.
9. The elasticity of $Y = F(X, Z)$ with respect to X is $\frac{\Delta Y/Y}{\Delta X/X}$, equivalently $\frac{\partial Y}{\partial X} \frac{X}{Y}$:	☐ If the elasticity is zero, the production curve is horizontal in the (x, y) plane. ☐ If y is perfectly elastic with respect to x , the production curve is vertical in the (x, y) plane. ☐ If the elasticity is zero, the production curve is vertical in the (x, y) plane. ☐ If y is perfectly elastic with respect to x , the production curve is horizontal in the (x, y) plane.
10. In microeconomics, the price elasticity of demand equals ... In the (q, p) plane, this usually gives:	☐ A vertical curve if my supply is inelastic, because changing my price by 1% changes q by 0%, so for every p I pick the same quantity. ☐ A horizontal curve if my supply is inelastic, because changing my quantity by 1% changes p by 0%, so for every q I pick the same price. ☐ A vertical curve if my supply is perfectly elastic, because changing my price by 1% changes q by 0%, so for every p I pick the same quantity. ☐ A horizontal curve if my supply is perfectly elastic, because at the q chosen by the firm, consumers will buy regardless of the price.