Fundamentals × Economics: A Quiz

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A Quiz

Q1 Billie Eilish or Taylor Swift?

You won a free ticket to see a Billie Eilish concert (which is personal and has no resale value). Taylor Swift is performing on the same night and is your next-best alternative activity. Tickets to see Taylor Swift are super cheap and cost 40 USD. On any given day, you would be willing to pay up to 50 USD to see Taylor Swift. Assume there are no other costs of seeing either performer. Based on this information, what is the opportunity cost of seeing Billie?

A. 0 USD
B. 10 USD
C. 40 USD
D. 50 USD
E. 90 USD

Q2 Growth

In a market society … is the fundamental process for long term development of the society and the economy.

A. demand and supply
B. profit maximization
C. research and development (R&D)
D. competition

Q3 Exchange

It takes Mary one day to produce 100 table candles or 50 tealight candles. It takes Bob one day to produce 20 table candles or 20 tealight candles. Bob is a business partner of Mary. He …

A. doesn't deal with Mary on a regular basis, because he is not as competitive as she is.
B. regularly exchanges table candles for tealight candles.
C. regularly exchanges tealight candles for table candles.

Q4 Strategic Trade

Germany and Sweden have similar wages, climates and technologies — yet Germany ships BMWs to Sweden while Sweden ships Volvos to Germany. And virtually all large passenger aircraft come from just two places, Seattle and Toulouse: early factories happened to be there, and increasing returns locked the pattern in. What follows for trade policy?

A. Nothing can follow — all real-world trade rests on comparative advantage, so such trade patterns cannot exist.
B. A great deal: since scale and history, not nature, decide who captures the industry rents, a smart government should subsidize its national champion like Airbus and secure those rents for its own citizens.

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C. Such trade is wasteful — nearly identical countries swapping similar cars burn transport costs for nothing and should be discouraged.
D. The theoretical case for strategic trade policy is sound — but self-defeating in practice: government would need knowledge nobody has (which industries yield excess rents), must expect subsidy races and retaliation, and hands every rent seeker a gilt-edged pretext. Free trade remains the pragmatic rule.
E. High-wage countries will inevitably lose these industries to low-wage countries and must protect themselves.

Q5 Trade Statistics

In the 1780s, under the Articles of Confederation, American states taxed each other's commerce: New York levied duties on firewood from Connecticut and cabbages from New Jersey — a statistician could have computed New York's «trade deficit» with New Jersey. The Constitution ended these internal tariffs; today nobody knows whether Texas runs a deficit with Ohio, and nobody cares. Meanwhile, politicians warn that the nation's trade deficit with China proves «we are losing» and demand tariffs. What does the economic way of thinking say?

A. The politicians are right: a nation with a trade deficit loses money and grows poorer, just like a firm losing revenue.
B. Nations never trade — only people and firms do, and only when both sides expect to gain. The deficit is an accounting artifact of where the border is drawn.
C. The problem is real, but the remedy is wrong: export subsidies, not tariffs, would balance the account.
D. Trade statistics measure competitiveness: countries compete like companies, and a chronic deficit shows the nation has lost the race.
E. Whatever their effect on trade, tariffs are at least a harmless way for the state to raise revenue.

Q6 All You Can Eat

On Tuesdays Fat Jack likes to hit the Giuseppe's Pizza Place on Main Street. One large pizza slice costs 5 USD, soft drinks are free of charge. After paying 22 USD for all you can eat pizza, he stays for more than one hour and eats as many as 6 pizza slices. After dinner Fat Jack goes home and throws the pizza slices up because he ate at least two slices too much. What would an economically rational all you can eat behavior look like?

A. Fat Jack did the economically right thing eating 6 slices.
B. Fat Jack should have eaten 5 slices.
C. Fat Jack should have eaten 4 slices.
D. Fat Jack should have eaten 3 slices.
E. Fat Jack should have eaten slices only as long as he was hungry.

Q7 Economics

Economics is mainly …

A. about money and profit maximization.
B. about individual optimal behavior.
C. about mutually beneficent cooperation and exchange.
D. about the economy and concerned with stability, growth and employment.

Q8 Prices

Market prices …

A. are a result of global market processes and contain a multitude of information.
B. are mainly based on average labor costs.
C. are mainly based on marginal labor costs.
D. are based on marginal production costs.
E. are mainly based on marginal demand.
F. frequently fluctuate on a daily basis and thus have no further meaning.

Q9 Allocation

Which of the following procedures is not a social allocation and distribution process?

A. Lottery
B. Saving
C. Politics
D. Administrative and judicial decisions
E. Standing in a queue
F. Negotiations
G. Markets

Q10 Value

Economic value is …

A. objective and depends on labor costs.
B. objective and depends on opportunity costs.
C. sometimes objective and sometimes subjective.
D. neither objective nor subjective.
E. not an economic term.
F. subjective.

Q11 Marginal Thinking

Deirdre is thinking and deciding at the margin means …

A. she is taking decisions in small steps.
B. she behaves in a borderline manner.
C. she considers total utility minus total costs.
D. she only takes utility into account.
E. she only takes costs into account.

Q12 Market Failures

When markets fail, …

A. nothing can be done.
B. politics should correct or replace the markets.
C. nothing should be done.
D. other allocation procedures may enlarge the pie.
E. taxes and subsidies will always improve the market outcome.
F. the definition of property rights solves the problem.

Q13 Externalities

Kamala buys a house right next to a long-established airport — at 25% below the price of otherwise identical houses in quiet neighborhoods. After moving in, she petitions the city to impose a noise tax on the airlines. The aircraft noise is …

A. no externality at all: the expected noise was already capitalized in the price discount, so Kamala was compensated at purchase — a noise tax would compensate her twice and reward rent seeking.
B. a negative technological externality; a Pigouvian tax will restore efficiency.
C. an externality, because Kamala is physically affected by third-party actions she never consented to.
D. a market failure that only government can correct, since Kamala cannot possibly negotiate with all airlines.
E. a pecuniary externality and therefore harmless.

Q14 Profits

After a firm has paid all its inputs — including interest on the owners' capital and a market wage for the managers' work — sometimes something is left over, sometimes something is missing. What are these profits (and losses)?

A. A markup that firms add to their costs.
B. A residual for bearing uninsurable uncertainty — unknown unknowns.
C. Interest on the capital invested by the owners.
D. A wage for the managers' skill and effort.
E. A premium for bearing risks like fire, hail or default.
F. Value extracted from workers, customers or other stakeholders.

Q15 Profit Maximization

Thousands of drivers leave Chicago at the same time, picking their highways at random — nobody knows which roads have gasoline stations. Tanks run dry; only those who happened to choose a road with stations are still driving. A business magazine celebrates them: «visionary route planners who maximized their range.» What does the drivers' survival actually prove?

A. Only that they happened to fit their environment: under uncertainty, the environment adopts survivors — luck can fully substitute for foresight. *Ex post* success is no proof of *ex ante* maximization; what can be maximized nobody knew.
B. Superior foresight — the survivors clearly planned better than the stranded.
C. Maximization, at least unconsciously: whoever survives such a race must have optimized, otherwise he'd be stranded too («as if» foresight).
D. Nothing — markets are a lottery, and success deserves neither study nor respect.
E. Chance mattered at the start, but in the long run luck washes out and only skill survives.

Q16 Property Rights

Today Zohran Mamdani, the Mayor of New York City, credibly announces a permanent rent cap that will cut the rental income of all apartment buildings by 20% — starting in five years. Armen owns such a building today. Three years from now (two years before the cap takes effect) he sells it to Harold. Who bears the burden of the regulation?

A. Harold alone.
B. Armen and Harold share the burden in proportion to how long each owns the building under the cap.
C. Armen alone.

D. Future tenants, because landlords will pass the loss on.
E. Nobody yet — the cap only affects rental flows that lie years in the future.
F. Nobody because rental income doesn't influence the value of a building.

Q17 Rent

A journalist writes: «A Manhattan at a bar in Manhattan costs 24 USD because rents are sky-high. Cap those rents, and cocktails will get cheaper.» This reasoning is …

A. correct: rent is a cost of production, and costs determine prices.
B. exactly backwards: because customers at this location are willing to pay high prices, competing bidders drive the rent up to the land's use value. The high rent is the result of high cocktail prices. A rent cap would not change the price of a Manhattan by a single cent — it would only hand the incumbent tenant a windfall.
C. correct at least for the individual bar: since every owner must cover his rent to survive, high rents force high prices — and what is true for each bar is true for the market.
D. half correct: causality runs both ways, so a rent cap would lower cocktail prices somewhat.
E. wrong, because rents are irrelevant for business decisions.

Q18 Efficiency

At a conference about renewable energy, five participants define efficiency. Whose definition is correct?

A. The engineer: «Efficiency is an objective technical ratio — useful output per unit of input. Physics decides, values have nothing to do with it.»
B. The energy bureaucrat: «A process is efficient when it delivers a given output — light, heat, timber — with the minimum input of energy.»
C. The economist and scholar: «Efficiency is a value judgment — with a different judge on each level. A choice is efficient if its expected benefits exceed its opportunity costs in the actor's own ex-ante evaluation. A process is efficient if the market value of its output exceeds the market value of all resources it consumes — prices lending us everyone else's valuations. And a rule is efficient if all affected parties would consent to it.»
D. The policy consultant and adviser: «An economy is efficient when its allocation of goods is Pareto-optimal. Deviations can be identified by experts and corrected by policy.»
E. A participant at the back: «Since values are subjective, every chosen activity is efficient — the chooser believed it worthwhile, and nobody else's judgment counts.»

Q19 Dispositions

Three economists stand at the same congested downtown intersection. The first economist says: «Congestion is real, but internalizing it would cost more than it's worth — leave it alone.» The second economist says: «This is a Pareto-relevant externality, but give entrepreneurs time: navigation apps, ride sharing and private toll roads will sort it out.» The third economist says: «Pareto-relevant indeed, and only a government congestion charge can fix it.» Their disagreement …

A. can be settled by better data and econometrics.
B. proves that at least two of them are making an analytical error.
C. is not analytically decidable: all three positions rest on differing priors about the competence of people acting privately versus people acting politically.
D. shows that «externality» is a meaningless concept and should be dropped.
E. will disappear once economics matures into a hard science.

Q20 Tobacco Taxes

Australia levies the world's highest tobacco taxes: a pack of cigarettes costs 35–40 USD, a single Cuban Partagas D4 cigar 65 USD. «Smokers will grumble and pay — addicts always do,» says the treasurer, expecting stable revenue. What do you think has the policy actually achieved?

A. Smoking has barely declined and revenue is high and stable: addicts' demand for nicotine is inelastic, so they pay almost any price.
B. Smoking has barely declined; the tax is being paid out of the tobacco companies' profits, which have turned into losses.
C. Smoking has fallen sharply while revenue remains high — the promised «double dividend» of health and treasury works.
D. Smoking and revenue have both collapsed: Australians simply quit.
E. Smoking has fallen only modestly, but legal sales have collapsed: roughly 80% of tobacco consumed is now illicit, excise forecasts have halved, gangs fight tobacco wars and firebomb each other's selling points.

B Short Answers

1B
2D
3C
4D
5B
6E
7C
8A
9B
10F
11A
12D
13A
14B
15A
16C
17B
18C
19C
20E

C The Twenty Answers, Explained

This guide explains the correct answer to each of the twenty quiz questions. It is written for students and interested lay readers; no prior training in economics is assumed. Try the quiz first — the explanations give everything away. As you read, notice that a handful of tools do all the work, question after question: count costs as forgone alternatives, not as payments; decide at the margin and ignore sunk costs; remember that value is subjective and that prices carry information; convert future flows into present asset values; check the direction of causality before accepting a claim; and be careful when reading success backwards from survival. Whoever masters these habits of thought has learned more than a vocabulary — they have learned the economic way of thinking. The footnotes contain hints to seminal or otherwise helpful references (see Part D).

Q1 Billie Eilish or Taylor Swift? — Correct answer: B (10 USD)

Opportunity cost is the value of the best alternative you give up, measured as a net amount. By going to the Billie Eilish concert you sacrifice the enjoyment of seeing Taylor Swift, which is worth 50 USD to you. But you also keep the 40 USD you would have had to spend on the Taylor Swift ticket. Your net sacrifice is therefore 50−40 = +10 USD.[2]

The wrong answers are all natural slips: 0 USD confuses a free ticket with a free evening; 40 USD counts the money you never spend; 50 USD counts the gross benefit and forgets you save the ticket price; 90 USD adds the two numbers instead of netting them. The deeper lesson: costs are not payments, they are forgone alternatives.

Q2 Growth — Correct answer: D (competition)

Competition is the fundamental process behind long-term development because it is, in Hayek's phrase, a discovery procedure. Nobody knows in advance which products, technologies and ways of organizing work will serve people best. Competition lets thousands of rival answers be tried out in parallel, rewards the better ones with customers and profits, and weeds out the worse ones through losses.[3]

The other options describe things that happen inside this process, not the process itself. Supply and demand describe how prices form; profit maximization is a motive, not a mechanism; and research and development produces ideas but cannot, by itself, tell good ideas from bad ones — centrally planned economies had plenty of laboratories and very little development. It is competition that turns invention into improvement.

Q3 Exchange — Correct answer: C

Mary can make 100 table candles or 50 tealights per day; Bob only 20 or 20. Mary is better at everything — she has an absolute advantage in both goods. Yet trade still pays, because what matters is comparative advantage: the opportunity cost of one good in terms of the other. For Mary, one tealight costs two table candles. For Bob, one tealight costs only one table candle. Tealights are therefore relatively cheap for Bob to make and relatively expensive for Mary.[4]

2 Ferraro & Taylor (2005)

3 Hayek (1968)

4 Alchen & Allen (2018)

So Bob specializes in tealights and regularly exchanges tealights for Mary's table candles — answer C. Answer A is the popular fallacy that only the more productive party is 'competitive' enough to trade. In fact, someone who is worse at everything is still comparatively best at something, and both sides gain from the exchange.

Q4 Strategic Trade — Correct answer: D

Not all trade follows comparative advantage. When production shows increasing returns to scale, history and accident can decide who ends up making what: aircraft come from Seattle and Toulouse because early factories happened to be there and the advantage locked itself in. This is the core of the 'new trade theory'. It creates a real theoretical temptation: if history rather than nature assigns the profitable industries, why shouldn't a clever government subsidize its national champion and grab those rents?[5]

The answer is that the policy defeats itself in practice. Government would need knowledge nobody has — which industries will yield excess returns; other governments will retaliate with subsidies of their own; and every rent seeker gains a respectable pretext for demanding 'strategic' support. That is why answer B, which states the theory correctly but draws the interventionist conclusion, is the trap. Even the theory's chief architect, Paul Krugman, concluded that free trade remains the pragmatic rule — 'not passé, but an idea that has lost its innocence.

Q5 Trade Statistics — Correct answer: B

Nations never trade — only people and firms do, and only when both sides expect to gain. Every line in a trade statistic records a voluntary exchange that made both parties better off, by their own judgment. A 'trade deficit' appears the moment an accountant draws a line on the map and adds up the transactions that happen to cross it. Drawn around a state, the number strikes everyone as meaningless — nobody knows or cares whether Texas runs a deficit with Ohio. Drawn around a nation, the same number becomes high politics. Your household runs a lifelong deficit with its supermarket and a lifelong surplus with your employer; neither fact harms you.[6]

Answer A is mercantilism: it confuses money with wealth and forgets that imports are the gain from trade while exports are its price. C accepts the false premise and doctors the symptom. D treats countries as competing companies — but countries do not go out of business, and trade is not a race. E fails too: as a source of revenue, tariffs are among the most damaging taxes available — a narrow base, large hidden losses, retaliation, and an open invitation to every industry to lobby for 'protection'.

Q6 All You Can Eat — Correct answer: E

The 22 USD entrance fee is a sunk cost: it is gone whether Jack eats one slice or ten, so it must not influence any decision made after paying. From that moment on, the marginal cost of an extra slice is zero, and the rational rule is to eat as long as the next slice still gives positive enjoyment — that is, as long as he is hungry — and to stop the moment it doesn't.[7]

There is no magic number of slices, which rules out answers B, C and D. Jack's actual mistake was the familiar urge to 'get his money's worth': by forcing down slices that already made him

5 Krugman (1987)

6 Irwin (2020)

7 Alchen & Allen (2018)

feel ill, he paid a second time — with his stomach — for a fee that was already spent. Sunk costs are sunk; only marginal benefits and marginal costs should steer behavior.

Q7 Economics — Correct answer: C

At its core, economics is the study of how people cooperate to mutual advantage — how millions of strangers, each pursuing their own goals, end up serving one another through voluntary exchange. Trade is not a zero-sum contest but a positive-sum arrangement: both sides expect to gain, or the exchange would not happen.[8]

Answer A mistakes the measuring rod (money) for the subject. B is half right — economists do study individual choices — but choice is the building block, not the point; the interesting question is how individual choices mesh. D describes one branch (macroeconomic policy), not the discipline. The heart of the economic way of thinking is mutually beneficial cooperation and what makes it possible: property, prices, and exchange.

Q8 Prices — Correct answer: A

A market price is a result of global market processes and a compressed message. Into the price of tin, say, flow droughts and strikes and inventions and shifts of taste on every continent — more information than any statistical office could gather, translated into a single number that tells every user how scarce the good is and every producer how urgently it is wanted. Nobody sets these prices; they emerge from millions of transactions, and their daily fluctuation is not noise but the message being updated.[9]

Answers B, C and D commit the cost fallacy in three versions: they derive prices from one side only — production costs. Answer E makes the mirror-image mistake, deriving prices from demand only. Both blades of Marshall's scissors cut together: valuations and costs (which are themselves other people's valuations of alternatives) jointly determine prices. And F draws exactly the wrong conclusion from volatility — a price that never moved would be a broken signal.

Q9 Allocation — Correct answer: B (Saving)

An allocation and distribution procedure is a social mechanism for deciding who gets scarce goods when many people want them: markets ration by willingness to pay, queues by patience, lotteries by luck, politics by votes and influence, courts by legal argument, negotiation by agreement. Each of these settles conflicts between different people over the same resources.

Saving does not belong on this list because it involves no conflict between persons at all. Saving is an individual decision to shift one's own consumption from the present to the future. It changes when you consume, not who gets what. The question trains an important habit: whenever a society replaces one allocation procedure with another — for instance, prices with queues — it does not abolish scarcity, it only changes the currency in which people compete.

8 Buchanan (1964)

9 Hayek (1945)

Q10 Value — Correct answer: F (subjective)

Economic value does not reside in objects; it resides in the valuations of persons. The same glass of water is worth almost nothing at a fountain and almost everything in a desert; the good is identical, the valuation differs. This insight — the subjective theory of value — resolved the old paradox of why water, essential for life, is cheap, while diamonds, mere ornaments, are dear: what counts is the usefulness of the next unit, judged by someone, somewhere, at the margin.[10]

Answer A is the labor theory of value: if it were true, mud pies requiring much labor would be valuable. Answer B is the subtle trap: opportunity costs sound objective, but they are themselves the value of forgone alternatives — and that value, too, exists only in someone's judgment. Objectivity cannot be smuggled back in through the cost side.

Q11 Marginal Thinking — Correct answer: A

Thinking at the margin means making decisions in small steps: not 'should I study economics?' but 'should I study one more hour tonight?'; not 'is water more important than diamonds?' but 'what is this additional liter worth?'. At each step Deirdre compares the marginal benefit of the next unit with its marginal cost, and continues as long as the benefit is larger.[11]

Answer C describes the opposite procedure — comparing totals — which is exactly what marginal thinking replaces, and which leads to paradoxes (total water value is enormous; that tells you nothing about the price of a liter). D and E each drop one side of the comparison. Almost every other question in this quiz secretly relies on this tool: Fat Jack's pizza, the smoker's next pack, the firm's next unit of output.

Q12 Market Failures — Correct answer: D

Markets can fail — information can be poor, property rights incomplete, spillovers real. But the discovery that a market falls short of a textbook ideal does not, by itself, justify intervention. The relevant comparison is never 'imperfect market versus perfect government'; it is one imperfect arrangement versus another. This is why the honest answer says other allocation procedures may enlarge the pie — sometimes politics, courts, or newly defined property rights genuinely improve matters, sometimes they make things worse.[12]

Answer B assumes what needs proving: that political processes, with their own incentives and knowledge problems, will correct rather than compound the failure — the 'nirvana fallacy'. E's word 'always' should set off every alarm. F is too strong: clear property rights often help, but defining and enforcing them is costly and sometimes impossible. A and C turn a comparative question into dogma in the opposite direction.

Q13 Externalities — Correct answer: A

Kamala bought the house 25% below the price of otherwise identical houses precisely because of the airport noise. The expected nuisance was already capitalized into the price: the discount is her compensation, received in advance, at the moment of purchase. Her property right never included silence — in the language of the common law, she 'came to the nuisance'. A noise

10 Stringham (2010)

11 Alchen & Allen (2018)

12 Coase (1960), Demsetz (1969)

tax would therefore compensate her a second time, at the airlines' and travelers' expense, and would reward exactly this kind of petitioning — rent seeking.[13]

Answer C states the popular fallacy that being physically affected is what makes something an externality. But expected spillovers are internalized through prices and adjusted behavior; a genuine externality requires an unexpected, uncompensated effect. B applies the textbook Pigouvian reflex without asking whether anything is left to correct, and D reaches for government because bargaining looks hard — overlooking that the market already 'bargained' through the housing price.

Q14 Profits — Correct answer: B

Any good theory of profit must pass one test: it must also explain losses. Profit is what remains — sometimes a positive number, sometimes negative — after every input has been paid its market price. It is the residual reward for bearing genuine, uninsurable uncertainty: the unknown unknowns of future demand, technology, and competition that nobody can calculate or insure against (Frank Knight's distinction).[14]

The distractors all fail the loss test or confuse profit with a cost. A markup (A) chosen by the firm could never be voluntarily negative. Interest (C) and managerial wages (D) are costs with market prices — and the question says they were already paid. Insurable risks (E) become insurance premiums, which are also costs; wherever outcomes can be calculated, competition squeezes the residual away. And exploitation (F) explains losses least of all — who exactly is being exploited when a firm loses money? A profit signals that customers voluntarily paid more for the output than the inputs were worth elsewhere: value was created, not extracted.

Q15 Profit Maximization — Correct answer: A

The drivers' survival proves only that they happened to fit their environment. Nobody knew where the gasoline stations were, so nobody could have planned the winning route; the environment 'adopted' whoever chanced onto it (Armen Alchian's famous example). Under real uncertainty, luck can fully substitute for foresight, and success observed after the fact is no evidence of maximization before the fact — there was nothing calculable to maximize.[15]

B is the business-press version of survivorship bias: every surviving CEO becomes a visionary in retrospect. C is the subtlest trap — the 'as if' argument that survivors must have maximized unconsciously; but where outcomes overlap and are unknowable, there is no maximum to hit, only positive results to survive on. E ('luck washes out in the long run') fails because new uncertainty keeps arriving; skill improves the odds but never eliminates chance. And D overshoots into nihilism: the system still directs resources sensibly, because newcomers imitate the survivors' routes and gasoline stations spring up along traveled roads — selection plus imitation creates order without any maximizer.

Q16 Property Rights — Correct answer: C

Armen bears the entire burden — even though he sells the building before the cap ever takes effect. The reason is capitalization: an asset's price today is the present value of all the income it

13 Coase (1960), Boudreaux & Meiners (2019)

14 Knight (1921)

15 Alchian (1950)

is expected to yield in the future. The moment the rent cap is credibly announced, every future year of reduced rent is discounted into the building's market value, and the price drops at once. When Armen sells three years later, Harold pays this reduced price, collects the reduced rents, and earns a perfectly normal return; he bears nothing.[16]

Whoever answers A or B is thinking in flows — placing the burden in the years when the rent is actually missing. Asset markets do not work that way: they convert expected future flows into present stocks instantly. E confuses the announcement with the start date, and D forgets that a price cap is precisely a ban on passing costs on. The general lesson: interventions in future income strike, in one second, whoever holds the asset when expectations change.

Q17 Rent — Correct answer: B

The journalist has the causality backwards. Customers in that location are willing to pay 24 USD for a cocktail; because such revenues are attainable there, competing would-be tenants bid the rent up until it absorbs the location's advantage. High rents are the result of high prices, not their cause — Ricardo's insight, summarized by Marshall as 'rent does not enter into cost of production'. Cap the rent and the cocktail still costs 24 USD, because the customers' willingness to pay hasn't changed; the cap merely hands the sitting tenant the difference as a windfall.[17]

Answer C is the most instructive mistake: it correctly describes how things look to the individual bar owner, who must indeed cover his rent — and then commits the fallacy of composition, assuming that what is true for each is true for all. It is precisely this perspective that makes the error so widespread and so durable.

Q18 Efficiency — Correct answer: C

Efficiency is not a physical ratio but a value judgment — and the key is that a different judge presides at each level. A choice is efficient if, in the actor's own ex-ante evaluation, its expected benefits exceed its opportunity costs. A process is efficient if the market value of its output exceeds the market value of all resources it consumes — market prices lending us the valuations of everyone else in the economy. A rule is efficient if all affected parties would consent to it.[18]

The engineer (A) is refuted by thermodynamics itself: physically, every process converts 100% of its inputs; calling some output 'useful' is already a value judgment. The energy bureaucrat (B) minimizes one input and ignores the value of all the others — insulation, heat pumps, and the capital tied up in them are not free. The consultant (D) presumes knowledge no expert has and a politics that applies it benevolently. And the participant at the back (E) makes efficiency a tautology: if every chosen act is efficient by definition, the word can no longer do any work.

Q19 Dispositions — Correct answer: C

All three economists can be competent, honest, and in full command of the same data — and still disagree. The first holds that most externalities are real but not worth the cost of correcting; the second that the relevant ones will be handled by entrepreneurs, given time; the third that only government action will do. Which of them is right cannot be settled by economic analysis

16 Alchen & Allen (2018), Autor et al (2014)

17 Alchian (1987)

18 Heyne (2007), Hostettler (2024)

alone, because each position rests on a prior judgment about the comparative competence of people acting privately versus people acting politically.[19]

Answers A and E express the scientistic hope that policy questions are ultimately technical questions — collect enough data and the dispute dissolves. It won't, because the disagreement is not about the facts but about what to expect from imperfect institutions. B assumes welfare economics can prove policy recommendations; it cannot. D overshoots into nihilism — the concept of externality is meaningful; it is simply applicable far less often than commonly claimed. Knowing where analysis ends and disposition begins is itself a piece of economic literacy — perhaps the final one this quiz can teach.

Q20 Tobacco Taxes — Correct answer: E

The treasurer's premise is right and his conclusion is wrong. The demand for nicotine is indeed inelastic — addicts pay almost any price. But the demand for legally taxed nicotine is a different thing entirely: its elasticity depends on the substitutes available, and beyond a certain tax rate the tax itself calls the substitute into being. Australia crossed that line. Smoking has fallen only modestly, but legal sales have collapsed: roughly 80% of the tobacco consumed is now illicit, excise revenue forecasts have halved, and criminal gangs fight 'tobacco wars' over a multi-billion-dollar black market, firebombings included.[20]

In Laffer-curve language: the early tax increases raised revenue and seemed to confirm answer A, but each step moved the country toward the peak, and the last ones pushed it past — long-run elasticities are always larger than short-run ones, because substitutes take time to organize. B fails on tax incidence (with inelastic demand, consumers bear the tax) and on Q14 (competitive firms have no cushion of profit to 'give up'). C works only at moderate rates: at the extreme, you can have health gains or revenue, not more of both. D overlooks that people did not quit — they changed dealers. The saddest part is allocative: the addicts' inelastic demand still yields its rent, but it now flows to organized crime instead of the treasury, and disputes are settled with firebombs instead of prices.

19 Boudreaux & Meiners (2019)
20 Davidson (2025)

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