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Part I: Practice Examination Questions (1–50)

1. In a one-hectare irrigated rice plot, a farmer observes that total grain output increases at a decreasing rate as she adds the fourth, fifth, and sixth bags of urea while keeping land, water, and labor fixed. Within which stage of the classical production function is she operating?

- **a.** Stage one, where average product is still rising
- **b.** Stage two, where marginal product is positive but declining and lies below average product
- **c.** Stage three, where marginal product has turned negative
- **d.** The long-run constant returns stage where all inputs vary proportionally

2. On a fixed one-hectare cornfield, applying three bags of urea yields 4,200 kilograms of corn, whereas applying four bags yields 4,600 kilograms. What are the marginal product and average product at four bags of urea?

- **a.** Marginal product is 1,150 kilograms and average product is 400 kilograms
- **b.** Marginal product is 4,600 kilograms and average product is 1,400 kilograms
- **c.** Marginal product is 400 kilograms and average product is 1,150 kilograms
- **d.** Marginal product is 400 kilograms and average product is 1,400 kilograms

3. A vegetable grower continues hiring additional daily weeders on a tiny quarter-hectare plot until workers begin crowding one another and trampling seedlings, causing total harvest weight to fall. Which economic principle is demonstrated once marginal product turns negative?

- **a.** The third stage of the law of diminishing marginal returns caused by over-application of a variable input to a fixed factor
- **b.** Economies of scale resulting from expanding farm size
- **c.** Increasing marginal rate of technical substitution between land and capital
- **d.** Perfectly elastic short-run supply response

4. Why will a profit-maximizing rice farmer never rationally operate in stage one or stage three of the short-run production function?

a. Stage two always yields zero marginal product while stage one maximizes profit

b. Fixed costs are zero in stage one and infinite in stage three

c. Output prices drop to zero automatically outside stage two

d. In stage one average product of the variable input is still rising so adding more input improves efficiency, whereas in stage three additional input actually reduces total output

5. A commercial swine grower rents a hog barn on a five-year fixed lease and purchases commercial hog feeds weekly depending on herd size. As the farmer raises more pigs within the existing barn, how do his fixed cost and variable cost behave?

a. Total fixed cost rises with every pig sold while total variable cost stays constant

b. Total fixed cost remains constant regardless of output while total variable cost increases as output expands

c. Both total fixed cost and total variable cost drop to zero whenever output increases

d. Average fixed cost increases steadily as more pigs are produced in the barn

6. A broiler farm incurs 20,000 pesos in total fixed costs and 60,000 pesos in total variable costs to produce 1,000 marketable birds in one cycle. What are the farm's average variable cost and average total cost per bird?

a. Average variable cost is 20 pesos and average total cost is 60 pesos

b. Average variable cost is 80 pesos and average total cost is 100 pesos

c. Average variable cost is 60 pesos and average total cost is 80 pesos

d. Average variable cost is 40 pesos and average total cost is 80 pesos

7. When a palay producer expands output from 100 sacks to 120 sacks per harvest, total production cost increases from 70,000 pesos to 86,000 pesos. What is the marginal cost of producing each additional sack of palay in this range?

a. 800 pesos

b. 700 pesos

c. 717 pesos

d. 1,600 pesos

8. Why does the short-run marginal cost curve of a crop farm eventually slope upward and intersect both the average variable cost and average total cost curves at their respective minimum points?

a. Because fixed land rent doubles every time one more sack of grain is harvested

b. Because input suppliers charge higher prices only when average cost is falling

c. Because government taxes increase automatically whenever average total cost reaches its lowest point

d. Because diminishing marginal returns cause marginal cost to rise, pulling average cost down while below it and pulling average cost up once above it

9. A dairy cooperative operates with a fixed 30-cow barn during the current year, but over a five-year horizon it can buy additional land, construct larger barns, and install automated milking parlors. What distinguishes the cooperative's short-run condition from its long-run condition?

a. In the short run all costs are variable, whereas in the long run all costs are fixed

b. In the short run at least one factor of production is fixed, whereas in the long run all factors of production are variable

c. In the short run the farm faces zero explicit costs, whereas in the long run it faces only implicit costs

d. The short run is strictly defined as less than 30 days while the long run exceeds 10 years

10. As a banana plantation expands from 50 hectares to 500 hectares over several years, bulk fertilizer purchasing, specialized packing lines, and dedicated cold trucks reduce its long-run average cost per box. Which long-run economic phenomenon is the plantation experiencing?

a. Diminishing marginal utility

b. Diseconomies of scale

c. Economies of scale

d. Short-run capacity shutdown

11. During a seasonal market glut, a highland tomato grower faces a farmgate price of 25 pesos per kilogram. His average total cost is 32 pesos per kilogram and his average variable cost is 22 pesos per kilogram. What is his profit-maximizing or loss-minimizing short-run decision?

a. Continue harvesting and selling because price exceeds average variable cost, contributing 3 pesos per kilogram toward fixed costs

b. Shut down immediately because price is below average total cost

c. Double his fixed land rental payments to push average total cost below 25 pesos

d. Sell only half his crop at 25 pesos and discard the rest to eliminate fixed costs

12. In a perfectly competitive agricultural market, which segment of an individual farm's cost structure constitutes its short-run supply curve?

a. The entire average fixed cost curve from zero output onward

b. The downward-sloping portion of the average total cost curve

c. The horizontal total fixed cost line

d. The upward-sloping portion of the marginal cost curve lying at or above minimum average variable cost

13. When urban consumer demand for fresh dressed chicken surges during the December holiday season, commercial hatcheries immediately experience a sharp increase in orders for day-old chicks and broiler starter feed. What type of demand is illustrated by the hatcheries' orders for chicks and feed?

a. Autonomous consumer demand

b. Derived demand driven by demand for the final food product

c. Inferior good demand

d. Speculative demand

14. If a steep rise in the retail price of fresh pork causes households to buy significantly more dressed chicken even though the price of chicken has not changed, how are pork and chicken related in consumer demand?

a. They are complementary goods consumed strictly together

b. They are independent goods with zero demand interaction

c. They are substitute goods in consumption

d. They are both Giffen goods

15. A nutrition campaign widely publicizes the health benefits of eating local purple sweet potatoes, leading urban shoppers to purchase more sweet potatoes at every possible retail price. How is this market change depicted on a demand diagram?

a. A rightward shift of the entire demand curve representing an increase in demand

b. A downward movement along the existing demand curve

c. An upward movement along the existing demand curve

d. A leftward shift of the entire demand curve

16. A nationwide economic boom raises average household disposable income by 12 percent. Following this income growth, consumers buy more fresh beef cuts but buy noticeably less salted dried fish. How do economists classify salted dried fish for these households?

a. A normal luxury food

b. A complementary good to beef

c. A capital good

d. An inferior good whose demand falls as income rises

17. When an unusually large mango harvest lowers the retail price of ripe mangoes from 140 pesos to 90 pesos per kilogram, households increase their weekly mango purchases from 1 kilogram to 3 kilograms. How should an economist describe this consumer response?

a. An outward shift in demand caused by changing tastes

b. An increase in quantity demanded represented by a downward movement along the same demand curve

c. A decrease in market demand caused by lower price

d. A rightward shift in both demand and consumer income

18. Following a sudden 40 percent hike in the retail price of refined cane sugar, local bakeries and households reduce their purchases of brewed coffee powder even though coffee prices stayed unchanged. Which demand determinant explains this leftward shift in coffee demand?

a. Increase in the price of a substitute good

b. Decrease in household population size

c. Increase in the price of a complementary good

d. Expectation of lower future coffee prices

19. News reports forecast that a severe El Nino drought will drive retail rice prices sharply higher next month. In response, households immediately rush to supermarkets this week to stock up on extra sacks of rice at current prices. How does this expectation affect current rice demand?

a. Current demand shifts rightward as consumers accelerate purchases ahead of anticipated price increases

b. Current quantity demanded falls along the existing demand curve

c. Current demand shifts leftward as buyers wait for higher prices

d. Current demand remains unchanged until the drought actually destroys the harvest

20. To construct the total municipal market demand curve for fresh eggs from the individual demand schedules of 500 households, how must an economist combine the individual curves?

a. Add the maximum prices each household is willing to pay at each fixed quantity vertically

b. Multiply the highest individual quantity by the average egg price

c. Take the median quantity demanded by a single representative household

d. Sum the quantities demanded by all households horizontally at each given price

21. When commercial beef slaughtering expands in response to higher steak prices, meatpacking plants automatically place larger quantities of raw cattle hides onto the leather market. What type of supply relationship exists between beef and cattle hides?

a. Competitive supply

b. Joint supply produced simultaneously from the same production process

c. Derived supply

d. Composite supply

22. A vegetable trader brings 500 kilograms of highly perishable fresh leafy lettuce to an open-air wet market without refrigeration, knowing the entire stock must be sold before closing time at whatever price clears the stall. What shape characterizes this immediate market-period supply curve?

a. Perfectly horizontal because price cannot change

b. Downward sloping from left to right

c. Vertical and perfectly inelastic because quantity supplied is fixed regardless of price

d. Upward sloping with infinite price elasticity

23. The global price of imported nitrogen fertilizer rises by 45 percent prior to the wet planting season, sharply raising production costs for rice farmers across Central Luzon. How does this input price shock affect the market supply of palay?

a. The supply curve shifts leftward, reducing the quantity of palay farmers are willing to supply at every given price

b. The supply curve shifts rightward as farmers plant more to recover costs

c. Quantity supplied increases along the existing supply curve

d. Supply becomes perfectly vertical with zero change in cost

24. A government agricultural research institute releases a high-yielding, pest-resistant hybrid corn variety that cuts per-kilogram production costs by 25 percent. How does widespread adoption of this technology affect the corn supply curve?

a. Shifts the corn supply curve leftward

b. Causes an upward movement along the existing corn supply curve

c. Rotates the demand curve for corn into a vertical line

d. Shifts the corn supply curve rightward, increasing quantity supplied at every price

25. Suppose the farmgate price of yellow corn rises by 30 percent while the price of soybeans remains unchanged on land suitable for growing either crop. How does this price change affect the supply curve of soybeans next season?

a. Soybean supply shifts rightward because both crops share the same soil

b. Soybean supply shifts leftward as farmers reallocate farmland from soybeans into more profitable corn

c. Quantity supplied of soybeans rises along the existing soybean supply curve

d. Soybean supply remains completely unaffected because soybean price did not change

26. When the farmgate price of live hogs increases from 160 pesos to 210 pesos per kilogram due to strong holiday demand, swine producers respond over the next cycle by expanding their marketable hog volume from 10,000 to 13,000 head without any change in feed costs or technology. What does this response represent?

a. A rightward shift of the entire supply curve

b. A leftward shift of the entire supply curve

c. An increase in quantity supplied shown as an upward movement along the existing supply curve

d. A decrease in supply caused by higher hog prices

27. A provincial government grants a per-bag cash subsidy to smallholder cassava farmers to cover part of their planting and harvesting costs. How does this production subsidy affect the cassava supply curve?

a. Shifts the supply curve rightward and downward by the amount of the per-unit subsidy

b. Shifts the supply curve leftward and upward

c. Causes a downward movement along the existing supply curve

d. Has zero effect on supply until consumer incomes rise

28. Why is the short-run supply curve of tree crops such as coconut, mango, and coffee much more price-inelastic than the supply curve of fast-maturing leafy vegetables like pechay?

a. Tree crop farmers never respond to profit incentives

b. Leafy vegetables require ten years to reach bearing age

c. Coconut and mango prices are fixed permanently by international law

d. Tree crops require long biological gestation periods of several years before newly planted trees yield harvestable output

29. When the retail price of milled rice increases by 10 percent, household quantity demanded declines by only 3 percent. What is the absolute value of the price elasticity of demand for rice, and how is it classified?

a. 3.33, classified as price-elastic

b. 0.30, classified as price-inelastic

c. 1.00, classified as unitary elastic

d. 0.03, classified as perfectly elastic

30. If consumer demand for domestic garlic has an absolute price elasticity of 0.40 and a harvest shortfall drives garlic prices up by 20 percent, how does total consumer expenditure on garlic change?

a. Total expenditure falls sharply because quantity demanded drops by 50 percent

b. Total expenditure remains completely unchanged

c. Total expenditure increases because the percentage rise in price outweighs the smaller 8 percent decline in quantity demanded

d. Total expenditure drops to zero as consumers abandon garlic entirely

31. When average household income rises by 15 percent, weekly consumption of fresh cassava falls by 6 percent while weekly consumption of choice beef cuts rises by 18 percent. What are the income elasticities of demand for cassava and beef respectively?

a. Minus 0.40 for cassava indicating an inferior good, and plus 1.20 for beef indicating a normal luxury good

b. Plus 0.40 for cassava and minus 1.20 for beef

c. Minus 2.50 for cassava and plus 0.83 for beef

d. Plus 1.20 for cassava and plus 0.40 for beef

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32. A 10 percent rise in the retail price of pork belly triggers an 8 percent increase in the quantity demanded of dressed broiler chicken. What is the cross-price elasticity of demand between pork and chicken, and what relationship does it confirm?

a. Minus 0.80, confirming they are complementary goods

b. Plus 1.25, confirming they are inferior goods

c. Minus 1.25, confirming they are independent goods

d. Plus 0.80, confirming they are substitute goods

33. According to Engel's law of household consumption behavior, what happens to the proportion of total household income spent on basic staple foods as a nation's per capita income grows steadily over time?

a. The percentage share of income spent on food rises steadily toward 100 percent

b. The percentage share of income spent on food declines even if total peso spending on food rises

c. Households stop buying food altogether once income doubles

d. Food expenditure always grows at exactly twice the rate of income growth

34. Because consumer demand for staple crops such as rice and corn is highly price-inelastic, why can an unusually bountiful nationwide harvest paradoxically reduce total gross income for farmers as a group?

a. Bumper harvests automatically force government agencies to confiscate all grain

b. Higher grain supply causes consumer demand to shift sharply leftward

c. The large percentage drop in market price required to clear the surplus exceeds the percentage gain in volume sold, lowering total revenue

d. Farmers always spend more than 100 percent of their revenue on sacks during good weather

35. To raise aggregate farm income for a staple commodity facing highly price-inelastic demand, a government considers an acreage reduction program that restricts planted area and cuts market supply. Why can restricting supply raise total farm revenue under inelastic demand?

a. A given percentage reduction in quantity supplied produces a proportionally larger percentage increase in market price, raising total revenue

b. Restricting supply turns an inelastic demand curve into a perfectly horizontal curve

c. Reducing planted area automatically doubles consumer household incomes

d. Lower supply forces consumers to pay double for substitute imported grains

36. Suppose the government sets a binding price floor for palay above the free-market equilibrium price to protect farmer incomes. What immediate market imbalance emerges, and what must the government do to sustain the price floor?

a. A persistent shortage emerges, requiring the government to ration rice to shoppers

b. Quantity demanded equals quantity supplied automatically without fiscal expense

c. Market prices collapse below the floor as farmers abandon rice production

d. A persistent surplus emerges where quantity supplied exceeds quantity demanded, requiring the government to purchase and store or dispose of the excess palay

37. During a food inflation spike, the government imposes a binding retail price ceiling on pork well below the market-clearing price. What unintended economic consequences typically arise from this policy?

a. A large unsold pork surplus piles up in cold storage warehouses

b. A persistent pork shortage develops alongside non-price rationing, long queues, lower quality cuts, and black-market trading

c. Swine farmers rapidly double their sow herds to expand supply at the lower price

d. Both consumer surplus and producer surplus expand to their maximum possible levels

38. If the government levies a specific per-kilogram excise tax on a staple food product whose demand is very price-inelastic while its supply is relatively price-elastic, who bears the larger share of the economic tax burden?

a. Producers bear nearly 100 percent of the tax burden because supply is elastic

b. The tax burden is always split exactly 50-50 regardless of elasticities

c. Consumers bear the larger share of the tax burden through higher retail prices because they cannot easily cut consumption or switch to substitutes

d. Neither consumers nor producers bear any burden because the tax disappears in transit

39. In a regional mango market, the demand equation is quantity demanded equals 500 minus 4 times price, and the supply equation is quantity supplied equals 100 plus 6 times price, where price is in pesos per kilogram and quantity is in kilograms. What are the equilibrium price and equilibrium quantity?

a. Equilibrium price is 40 pesos per kilogram and equilibrium quantity is 340 kilograms

b. Equilibrium price is 50 pesos per kilogram and equilibrium quantity is 300 kilograms

c. Equilibrium price is 60 pesos per kilogram and equilibrium quantity is 260 kilograms

d. Equilibrium price is 30 pesos per kilogram and equilibrium quantity is 380 kilograms

40. At a current wholesale price of 70 pesos per kilogram for onions, market quantity supplied is 8,000 kilograms while quantity demanded is only 5,500 kilograms. How will competitive market forces adjust price and quantity toward equilibrium?

a. Buyers will bid prices higher, expanding the surplus further

b. The government must raise the price to 90 pesos to clear the excess stock

c. Both supply and demand curves will shift vertically until they overlap

d. Downward pressure on price will eliminate the 2,500-kilogram surplus by stimulating quantity demanded and reducing quantity supplied until both match

41. During the Christmas season, consumer demand for pork shifts rightward due to holiday feasts at the exact same time an African swine fever outbreak shifts pork supply sharply leftward. What is the certain impact on equilibrium pork price and quantity?

a. Equilibrium price will definitely fall while equilibrium quantity will definitely rise

b. Equilibrium price will definitely rise, while the change in equilibrium quantity is indeterminate without knowing the relative magnitude of the two shifts

c. Equilibrium quantity will definitely rise while equilibrium price remains unchanged

d. Both equilibrium price and equilibrium quantity will definitely fall

42. When both favorable monsoon rains shift the supply of rice rightward and rapid urban population growth shifts the demand for rice rightward simultaneously, what can be predicted with certainty about the new market equilibrium?

a. Equilibrium price will definitely rise while equilibrium quantity is indeterminate

b. Equilibrium price will definitely fall while equilibrium quantity will definitely fall

c. Equilibrium quantity will definitely increase, while the direction of equilibrium price depends on which curve shifted more

d. Neither equilibrium price nor equilibrium quantity will change

43. In an isolated rural valley, a single large rice mill is the sole buyer of palay from hundreds of unorganized smallholder farmers who lack transport to reach distant towns. Which imperfectly competitive market structure does this single buyer represent, and how does it affect farmgate prices?

a. Monopsony, enabling the buyer to depress farmgate palay prices and purchase less volume than under competitive buying

b. Perfect competition, guaranteeing farmers the highest possible world market price

c. Monopolistic competition, forcing the mill to advertise heavily to attract sellers

d. Pure monopoly, where the mill sells palay to farmers at zero profit

44. Only three major multinational agribusiness firms supply over 85 percent of the hybrid vegetable seeds sold in a country, and each firm closely monitors rivals' pricing and promotional campaigns before adjusting its own seed prices. Which market structure characterizes this seed industry?

a. Perfect competition

b. Pure monopsony

c. Monopolistic competition

d. Oligopoly

45. Why does a profit-maximizing agricultural input monopolist charge a higher price and sell a smaller quantity than would occur under perfect competition?

a. Because a monopolist always faces horizontal demand and zero marginal cost

b. Because the monopolist faces a downward-sloping demand curve where marginal revenue lies below price, restricting output to where marginal revenue equals marginal cost and pricing up to the demand curve

c. Because a monopolist is legally prohibited from producing where marginal revenue equals marginal cost

d. Because monopolies have no fixed costs and operate solely in stage one of production

46. While eating fresh ripe mangoes on a hot afternoon, a consumer gains 25 utils of satisfaction from the first mango, 18 utils from the second, 8 utils from the third, and 0 utils from the fourth. What happens to the consumer's total utility if she eats a fifth mango that gives minus 5 utils?

a. Total utility continues rising to 56 utils

b. Total utility remains flat at 51 utils

c. Total utility reaches its peak at the fourth mango and declines to 46 utils upon eating the fifth mango

d. Marginal utility becomes positive again after saturation

47. Why are standard indifference curves for a consumer choosing between rice and fish drawn convex to the origin rather than as straight lines?

a. Because of a diminishing marginal rate of substitution: as a consumer acquires more rice and less fish, she is willing to give up progressively smaller amounts of fish for each additional kilogram of rice

b. Because consumers always prefer having less of both rice and fish

c. Because the price of rice doubles every time a consumer moves along an indifference curve

d. Because total utility increases continuously as one moves downward along a single indifference curve

48. Why can two distinct indifference curves belonging to the same rational consumer never intersect each other on a commodity map?

a. Because a consumer's income can buy only one good at a time

b. Because intersecting curves mean both goods are inferior goods

c. Because prices of food items never change in the short run

d. Because an intersection would violate the transitivity and more-is-better assumptions by implying two bundles with different satisfaction levels yield identical utility

49. A shopper with a fixed grocery budget buys apples at 20 pesos each and bananas at 10 pesos each. At her current basket, the marginal utility of the last apple is 40 utils while the marginal utility of the last banana is 30 utils. To maximize total satisfaction within her budget, how should she reallocate her spending?

a. Buy more apples and fewer bananas because apples give higher raw marginal utility

b. Buy more bananas and fewer apples because bananas yield 3 utils per peso compared to only 2 utils per peso for apples, until marginal utility per peso equalizes

c. Keep her exact current basket because 40 exceeds 30

d. Spend her entire budget exclusively on apples until apple marginal utility drops to zero

50. A household allocates a fixed weekly budget of 600 pesos between milled rice priced at 50 pesos per kilogram and fresh eggs priced at 10 pesos per piece. If the household purchases 8 kilograms of rice, what is the maximum number of eggs it can buy along its budget constraint, and at what point on an indifference map is consumer satisfaction maximized?

a. Up to 40 eggs, with satisfaction maximized where the budget line intersects the vertical axis

b. Up to 12 eggs, with satisfaction maximized at any point inside the budget line

c. Up to 20 eggs, with satisfaction maximized where the budget line is tangent to the highest attainable indifference curve

d. Up to 60 eggs, with satisfaction maximized where the marginal rate of substitution equals zero

Part II: Detailed Answer Key & Rationales (1–50)

Review the correct answers and economic explanations below to verify your mastery of Module B (Microeconomics).

No.	Answer	Detailed Explanation
1	b	Stage two begins where average product reaches its maximum and marginal product equals average product, extending to the point where total product peaks and marginal product reaches zero. Throughout stage two, total product increases at a decreasing rate because marginal product is positive, declining, and below average product.
2	c	Marginal product (MP) is the change in total output divided by the change in input: (4,600 − 4,200) / (4 − 3) = 400 kg. Average product (AP) at four bags is total output divided by total units of input: 4,600 / 4 = 1,150 kg.

No.	Answer	Detailed Explanation
3	a	In stage three of short-run production, adding excessive variable input (labor) to a fixed input (quarter-hectare land) causes physical congestion and crop damage, driving marginal product below zero and reducing total harvest output.
4	d	Stage one is irrational because increasing the variable input raises the average productivity of all units used (the fixed input is underutilized). Stage three is irrational because additional variable inputs yield negative marginal returns and reduce total harvest. Rational production occurs strictly within stage two.
5	b	Total fixed cost (barn lease) does not vary with the level of output in the short run, whereas total variable cost (weekly commercial feed) rises directly as more pigs are raised.

No.	Answer	Detailed Explanation
6	c	Average variable cost (AVC) = TVC / Q = 60,000 / 1,000 = 60 pesos per bird. Total cost (TC) = TFC + TVC = 20,000 + 60,000 = 80,000 pesos, so average total cost (ATC) = 80,000 / 1,000 = 80 pesos per bird.
7	a	Marginal cost (MC) = ΔTC / ΔQ = (86,000 − 70,000) / (120 − 100) = 16,000 / 20 = 800 pesos per additional sack of palay.
8	d	As diminishing marginal returns set in, each additional unit of output requires more variable input, causing marginal cost to rise. Mathematically, whenever marginal cost is below average cost, it pulls the average down; once marginal cost exceeds average cost, it pulls the average up, intersecting both AVC and ATC at their minimum points.
9	b	In microeconomics, the short run is a planning horizon in which at least one factor of production (such as barn size or land) is fixed, whereas the long run is a horizon long enough for all inputs and plant capacity to be varied.
10	c	Economies of scale occur when expanding the scale of all inputs in the long run reduces long-run average total cost per unit of output through bulk purchasing discounts, input specialization, and technical efficiencies.
11	a	In the short run, a farm continues operating as long as market price covers average variable cost (P > AVC). At 25 pesos per kg, the grower covers all 22 pesos of variable cost and earns 3 pesos per kg to help pay unavoidable fixed costs, incurring a smaller loss than shutting down.
12	d	A competitive farm maximizes profit or minimizes loss by equating price to marginal cost (P = MC), provided price is at least equal to minimum average variable cost (the shutdown point). Thus, the rising MC curve at or above minimum AVC is its short-run supply curve.
13	b	Demand for agricultural production inputs (day-old chicks, broiler feed, fertilizer) is derived demand because it stems directly from consumer demand for the final food product (dressed chicken).
14	c	Substitute goods satisfy similar consumer needs; when the price of fresh pork rises, consumers replace pork with dressed chicken, shifting the demand curve for chicken rightward.

No.	Answer	Detailed Explanation
15	a	A positive change in consumer tastes and health preferences increases the quantity consumers wish to buy at every given price, shifting the entire demand curve to the right.
16	d	An inferior good exhibits a negative relationship between consumer income and demand: as household income rises, consumers substitute away from salted dried fish toward higher-priced protein sources like fresh beef.
17	b	A change in the good's own price causes a movement along a stationary demand curve rather than a shift of the curve. Lowering price from 140 to 90 pesos increases quantity demanded along the existing curve.
18	c	Sugar and brewed coffee are complementary goods commonly consumed together. A sharp price increase in sugar raises the combined cost of drinking sweetened coffee, shifting coffee demand leftward.

No.	Answer	Detailed Explanation
19	a	Consumer expectations of higher future prices act as a non-price demand shifter, prompting households to buy more immediately and shifting the current demand curve rightward.
20	d	For private goods like fresh eggs, the market demand curve is derived by horizontally summing the individual quantities demanded by all households at each respective market price.
21	b	Joint supply occurs when two or more products (such as beef and raw cattle hides, or cotton lint and cottonseed) are produced together in fixed or closely linked proportions from a single production process.
22	c	In the immediate market period for highly perishable produce without storage, quantity supplied is completely fixed at the harvested volume brought to market, yielding a vertical (perfectly inelastic) supply curve.
23	a	Higher input prices increase marginal production costs at every output level, reducing profitability and shifting the market supply curve to the left.
24	d	Cost-reducing agricultural technology lowers per-unit production costs, enabling farmers to supply larger quantities at every market price and shifting the supply curve rightward.
25	b	Yellow corn and soybeans are substitutes in production competing for the same farmland. A higher corn price increases the opportunity cost of growing soybeans, shifting soybean supply leftward.
26	c	When the market price of live hogs rises while non-price supply determinants (feed cost, technology) remain constant, producers move upward along the existing supply curve, representing an increase in quantity supplied.
27	a	A per-unit production subsidy reduces farmers' effective marginal cost by the amount of the subsidy, shifting the supply curve downward and to the right.

No.	Answer	Detailed Explanation
28	d	Price elasticity of supply depends heavily on production time lags. Perennial tree crops require several years to mature and bear fruit, making short-run supply unresponsive (inelastic) compared to leafy vegetables harvested within weeks.
29	b	Price elasticity of demand (Ed) = |%ΔQd / %ΔP| = |−3% / +10%| = 0.30. Because 0.30 is less than 1, demand for milled rice is classified as price-inelastic.
30	c	With an elasticity of 0.40, a 20% price increase reduces quantity demanded by only 8% (0.40 × 20% = 8%). Because the percentage price rise exceeds the percentage quantity drop under inelastic demand, total consumer expenditure (P × Q) increases.
31	a	Income elasticity (Ei) = %ΔQd / %ΔIncome. For cassava: −6% / +15% = −0.40 (negative indicates an inferior good). For beef: +18% / +15% = +1.20 (greater than +1 indicates a normal luxury good).
32	d	Cross-price elasticity (Exy) = %ΔQd of chicken / %ΔP of pork = +8% / +10% = +0.80. A positive cross-price elasticity confirms that pork and chicken are substitute goods.

No.	Answer	Detailed Explanation
33	b	Engel's law states that as household or national income increases, the proportion (percentage share) of income devoted to food declines because food has an income elasticity less than one, even though absolute spending on food rises.
34	c	This is the classic farm problem: when supply increases sharply against a steep, price-inelastic demand curve, market price falls by a much larger percentage than quantity sold increases, reducing total gross farm revenue.
35	a	Along the inelastic portion of a demand curve, price and total revenue move in the same direction. Restricting market supply raises price by a greater percentage than the drop in volume, increasing total farm revenue.
36	d	A binding price floor set above equilibrium encourages farmers to supply more than consumers are willing to buy at that floor price, creating a persistent surplus that the government must absorb through buffer stock procurement.
37	b	A binding price ceiling set below equilibrium causes quantity demanded to exceed quantity supplied, resulting in chronic shortages, queuing, quality deterioration, and illegal black-market sales above the legal cap.
38	c	Tax incidence falls more heavily on the less elastic side of the market. Because staple food demand is price-inelastic while supply is relatively elastic, sellers pass most of the tax onto consumers via higher retail prices.
39	a	Set Qd = Qs: 500 − 4P = 100 + 6P → 400 = 10P → P = 40 pesos per kg. Substituting P = 40 into either equation gives Q = 500 − 4(40) = 340 kg.
40	d	At 70 pesos per kg, quantity supplied (8,000 kg) exceeds quantity demanded (5,500 kg) by 2,500 kg. Unsold inventory compels sellers to lower prices, which increases quantity demanded and reduces quantity supplied until equilibrium is restored.

No.	Answer	Detailed Explanation
41	b	A rightward demand shift and a leftward supply shift both exert upward pressure on price, so equilibrium price definitely rises. However, they pull quantity in opposite directions, making the net change in equilibrium quantity indeterminate without knowing shift magnitudes.
42	c	Simultaneous rightward shifts in both supply and demand expand market volume, guaranteeing an increase in equilibrium quantity. Because higher supply pushes price down while higher demand pushes price up, the equilibrium price change is indeterminate.
43	a	A monopsony exists when a single buyer dominates a market facing many sellers. By restricting its purchases along an upward-sloping supply curve, the monopsonist pays a lower farmgate price than would prevail under competition.
44	d	Oligopoly is characterized by a few large firms dominating industry supply, significant entry barriers, and strategic interdependence where each firm closely anticipates rivals' pricing and marketing reactions.
45	b	Because a monopolist is the sole seller facing a downward-sloping market demand curve, marginal revenue lies below price. It maximizes profit by producing where MR = MC and charging the highest price consumers will pay on the demand curve, resulting in lower output and higher price than perfect competition.

No.	Answer	Detailed Explanation
46	c	Cumulative total utility is 25 + 18 + 8 + 0 = 51 utils at the fourth mango (the saturation point where MU = 0). Consuming a fifth mango with −5 utils of disutility reduces total utility to 51 − 5 = 46 utils.
47	a	Convexity to the origin reflects a diminishing marginal rate of substitution (MRS): consumers prefer balanced consumption bundles and are willing to sacrifice fewer units of fish for each extra kilogram of rice as rice becomes abundant.
48	d	If two indifference curves intersected, the intersection bundle would yield equal utility to two distinct bundles on separate curves, even where one bundle contains strictly more of both goods—violating transitivity and non-satiation.
49	b	Consumer equilibrium requires equal marginal utility per peso spent (MUa / Pa = MUb / Pb). Bananas provide 30 / 10 = 3 utils per peso, whereas apples provide 40 / 20 = 2 utils per peso. Buying more bananas and fewer apples increases total utility.
50	c	Spending 8 kg × 50 pesos = 400 pesos on rice leaves 600 − 400 = 200 pesos for eggs, which buys 200 / 10 = 20 eggs. Consumer utility is maximized where the budget line is tangent to the highest attainable indifference curve (MRS = Pr / Pe).