S5 Economics Practice Paper: Elasticity and Market Equilibrium, Per-Unit Tax and Tax Incidence, Short-Run Production and Costs, Market Structure, National Income, Unemployment and Inflation, Money and Fiscal Policy (100 marks)

Level: S5 | Subject: Economics | 75 minutes | 100 marks | 24 questions | question paper

Part 1 Demand, Supply and Elasticity (17 marks)

Give elasticities, percentages and ratios to 1 d.p.; state the unit of price and revenue.

#	Question	Marks
1	The price of a good falls from $20 to $16 and quantity demanded rises from 200 to 260 units. Using the original-value method, calculate the price elasticity of demand (PED) and state the type of elasticity.	4
2	In a market, supply is Qs = -10 + 5P and demand is Qd = 110 - 3P. Find the equilibrium price and quantity.	4
3	Using the figures above (price falls from $20 to $16, quantity rises from 200 to 260), how does total revenue (TR) change? Give the percentage change and link it to elasticity.	4
4	A per-unit tax of $8 is imposed, so supply becomes Qs = -10 + 5(P - 8) = -50 + 5P while demand stays Qd = 110 - 3P. Find the new equilibrium price and quantity, and the share of the tax borne by consumers and producers.	5

Part 2 Short-Run Production and Costs (17 marks)

Show the working for marginal product and costs; express costs in dollars.

#	Question	Marks
5	A firm has short-run total product of 10, 26, 45, 60 and 70 units for 1 to 5 units of labour. Find the marginal product of each unit of labour and state from which unit diminishing marginal returns set in.	4
6	A firm has total cost TC = 200 + 6Q + 0.5Q^2. Find total cost, average total cost and marginal cost at Q = 20.	4
7	A firm has fixed cost of $200 and average variable cost of $8 when Q = 10. Find total variable cost, total cost, average total cost and average fixed cost.	4
8	A perfectly competitive price-taking firm faces a market price of $40 and has TC = 200 + 6Q + 0.5Q^2. Find the profit-maximising output and total profit, and say whether the firm should shut down in the short run.	5

Part 3 Market Structure and Concentration (16 marks)

Give output as whole numbers; show total revenue and total cost separately.

#	Question	Marks
9	State three features of long-run equilibrium in perfect competition and explain why P = MC = minimum average total cost in the long run.	4

10	A monopolist faces demand P = 100 - 2Q, has constant marginal cost of $20 and fixed cost of $500. Find the profit-maximising output, price and profit.	4
11	Using the same market, if it were perfectly competitive (P = MC), find the output and the deadweight loss relative to the monopoly outcome.	4
12	Five firms in an industry have market shares of 40%, 25%, 15%, 10% and 10%. Calculate the Herfindahl-Hirschman Index (HHI) and judge the degree of concentration, using 2,500 as the high-concentration threshold.	4

Part 4 National Income and Growth (17 marks)

Work in billions of dollars; express indices with base year = 100.

#	Question	Marks
13	An economy (in billions of dollars) has private consumption 500, gross investment 120, government spending 150, exports 400 and imports 380. Use the expenditure approach to find GDP.	4
14	With GDP from the previous question and net factor income from abroad of -30 (billion dollars), find GNP and briefly explain how GDP differs from GNP.	4
15	A region's nominal GDP index rises from 100 in the base year to 132, while its price index rises from 100 to 120. Find the real GDP index and the real growth rate over the period.	4
16	Real GDP grows by 10% while population rises from 7.00 million to 7.10 million. Find the growth rate of real GDP per capita to 1 d.p.	5

Part 5 Unemployment and Inflation (16 marks)

Give rates to 1 d.p.; show the working for price indices and interest rates.

#	Question	Marks
17	In a region, employment is 3.60 million and unemployment is 0.15 million; the rest are outside the labour force. Find the labour force and the unemployment rate.	4
18	A consumption basket contains 2 units of good A and 3 units of good B. Base-period prices are $10 for A and $20 for B; current prices are $12 for A and $22 for B. Using base-period quantities as weights, find the CPI and the inflation rate.	4
19	The one-year nominal interest rate is 5.0% and inflation is 3.2%. Use the exact Fisher equation to find the real interest rate to 1 d.p., and give the approximation.	4
20	In a year the CPI rises by 2.5% while the GDP deflator rises by only 1.8%. Give two reasons for the difference between the two price indices.	4

Part 6 Money, Banking and Policy (17 marks)

State the multiplier formula; state the direction of any change in money supply.

#	Question	Marks
21	The required reserve ratio is 20%, banks hold no excess reserves and the public holds no cash. Find the money multiplier and the increase in money supply when base money rises by $1,000.	4
22	A bank takes in deposits of $1,000 with a 20% required reserve ratio and actually holds $250 of reserves. Find required reserves, excess reserves and the excess reserve ratio.	4

23	Marginal propensity to consume is 0.8 and government spending rises by $2 billion. Find the simple expenditure multiplier and the change in equilibrium national income.	4
24	Nominal GDP is $80 billion and the velocity of money is 4. Use the equation of exchange to find money demand; if velocity rises to 5, by how much does money demand change, in amount and in percentage?	5

TutorZone - original practice paper. Time allowed: 75 minutes. Total: 100 marks.