S5 Economics Practice Paper: opportunity cost and the production possibility curve, demand, supply and price elasticity, per-unit tax and subsidy, price ceilings and floors, GDP and GNP, unemployment and inflation, money and exchange rates, comparative advantage and tariffs (100 marks)

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

Section A: Basic Economic Concepts, Opportunity Cost and Factors of Production (18 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
1	Ms Chan gives up a full-time job paying $18,000 a month to take a one-year full-time course. Tuition is $60,000 a year and books $6,000. Assume she would work full-time if she did not study. (a) Find the salary income she gives up in a year. (b) Find the opportunity cost of the course for one year.	4
2	An economy produces only X and Y. Points on its production possibility curve are (X, Y): (0, 120), (10, 110), (20, 90), (30, 60), (40, 20). (a) Find the opportunity cost of each unit of X in terms of Y when X rises from 0 to 10. (b) Find the same when X rises from 30 to 40. (c) Hence describe the shape of the curve and the law it implies.	4
3	(a) State the three basic economic problems every economy must solve. (b) In a market economy, by what mechanism are they mainly solved? (c) State the main difference between a planned and a market economy in the ownership of means of production.	3
4	Classify each statement as positive or normative and give a brief reason: (i) "The unemployment rate rose to 4.0% last quarter." (ii) "The government should raise the minimum wage to narrow the income gap." (iii) "A 10% rise in tobacco duty will reduce teenage smoking."	3
5	Classify each item as a factor of production and name its reward: (a) farmland (b) a lorry driver (c) a bank deposit (d) an entrepreneur who bears the risk of loss.	4

Section B: Demand, Supply and Elasticity (17 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
6	The price of a good falls from $20 to $16 and quantity demanded rises from 100 to 130 units. (a) Find the price elasticity of demand by the initial-value method (take the absolute value). (b) State whether demand is elastic, unit elastic or inelastic. (c) Find total revenue before and after the price cut and explain the result in terms of elasticity.	5
7	A consumer's monthly income rises from $20,000 to $22,000 and his quantity demanded of a good rises from 50 to 65 units. (a) Find the income elasticity of demand. (b) Classify the good. (c) If another good has an income elasticity of -0.5, how would you classify it?	4
8	The price of good A rises by 10%; quantity demanded of good B rises by 25% and of good C falls by 5%. (a) Find the cross price elasticity between A and B and state their relationship. (b) Find the cross price elasticity between A and C and state their relationship. (c) What would a cross elasticity of 0 between A and B mean?	4

9	In a market, demand is Qd = 120 - 2P and supply is Qs = 3P - 30 (P in dollars, Q in units). (a) Find the equilibrium price and quantity. (b) After the government imposes a per-unit tax of $5 on producers, find the new equilibrium price and quantity.	4

Section C: Price Controls, Per-unit Tax and Subsidy (17 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
10	Using Qd = 120 - 2P and Qs = 3P - 30: (a) if a price ceiling of $24 is set, find the shortage; (b) if a price floor of $36 is set, find the surplus; (c) give two non-price rationing methods used under a price ceiling.	5
11	Following Section B: the original equilibrium is P = $30, Q = 60. A per-unit tax of $5 raises the price to $33 and cuts quantity to 54. (a) Find the tax borne per unit by consumers and by producers. (b) Find the government tax revenue. (c) Find the deadweight loss, assuming straight-line demand and supply curves.	4
12	In a market Qd = 120 - 2P and Qs = 2P - 20. The government pays producers a subsidy of $6 per unit. (a) Find the equilibrium price and quantity before the subsidy. (b) Find the price paid by consumers and the quantity traded after the subsidy. (c) Find the total subsidy payment.	4
13	A price ceiling creates a shortage of 30 units in a market. (a) Explain why a price ceiling causes misallocation of resources. (b) State two non-price competition costs that may arise. (c) If the government instead gave consumers a subsidy of $5 per unit, would the shortage widen or narrow? Explain briefly.	4

Section D: National Income, Unemployment and Inflation (16 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
14	For an economy (in billions): private consumption 600, gross domestic fixed capital formation 180, government consumption expenditure 150, exports of goods and services 300, imports 280, and net inflow of factor income 20 . (a) Find GDP by the expenditure approach. (b) Find GNP. (c) Why is the resale of a used car excluded from that year's GDP?	4
15	In an economy the population aged 15 and over is 5,000,000, employment is 3,600,000 and unemployment is 150,000. (a) Find the labour force. (b) Find the unemployment rate. (c) Find the labour force participation rate.	4
16	The consumer price index rises from 120 to 126. A worker's nominal income rises from $24,000 to $25,200. (a) Find the inflation rate. (b) Find his real income in both periods at base-period prices. (c) How has his real income changed?	4
17	Nominal GDP rises from $1,000 to $1,080 while the GDP deflator rises from 100 to 105. (a) Find real GDP for the second year at base-period prices. (b) Find the growth rate of real GDP. (c) Why should real rather than nominal GDP be used to compare output across years?	4

Section E: Money, Banking and Exchange Rates (16 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
18	A person deposits $10,000 cash with a bank. The required reserve ratio is 20% and banks hold no excess reserves. (a) Find the deposit multiplier. (b) Find the maximum total deposits the banking system can create. (c) Find the increase in money supply.	4

19	Hong Kong operates a linked exchange rate system with US$1 = HK$7.80. (a) What is a HK$390 item worth in US dollars? (b) What is a US$500 phone worth in Hong Kong dollars? (c) State one benefit of the linked exchange rate system.	4
20	The US dollar rises from 7.80 to 7.85 against the Hong Kong dollar. (a) Find the percentage depreciation of the Hong Kong dollar against the US dollar. (b) By how many Hong Kong dollars does the local price of a US$500 phone rise? (c) What effect does the depreciation have on the competitiveness of local exports?	4
21	(a) State three functions of money. (b) A borrower takes a loan of $200,000; the annual interest rate rises from 4% to 5%. Find the increase in annual interest.	4

Section F: International Trade, Comparative Advantage and Tariffs (16 marks)

Answer all questions and show your working, units and significant figures.

#	Question	Marks
22	With the same resources, Country A can produce 4 machines or 8 units of cloth per labour hour, while Country B can produce 1 machine or 6 units of cloth. (a) Find the opportunity cost of one machine in each country, in units of cloth. (b) In which good does each country have a comparative advantage? (c) State the range of mutually beneficial terms of trade. (d) If one machine trades for 4 units of cloth, how much extra cloth does each country gain by specialising and trading?	6
23	Using the production data above (A: 4 machines or 8 units of cloth; B: 1 machine or 6 units of cloth): (a) which country has an absolute advantage in both goods? (b) Should that country still trade with the other? Explain. (c) If both countries had exactly the same opportunity cost of producing machines, would trade still take place?	5
24	The world price of a good is US$10 per unit. Local demand is Qd = 120 - 2P and local supply Qs = 3P - 30 (P in US dollars). (a) Under free trade, find the local price, local output and imports. (b) After a per-unit tariff of US$4, find the local price, local output and imports. (c) Find the tariff revenue.	5