S3 Citizenship, Economics and Society Practice Paper: Personal Finance, Demand Elasticity, Public Finance, GDP, Trade, Sustainability and Civic Participation

Level: S3 | Subject: Citizenship, Economics and Society | 60 minutes | 100 marks | 24 questions | question paper

Part A - Personal Finance and Compound Interest (18 marks)

Study the data, show your working and answer.

#	Question	Marks
1	Chi-ming earns $16000 a month and saves 25%. How much does he save monthly, how much does he spend, and how many months are needed to build an emergency fund equal to six months of spending?	5
2	Chi-ming deposits $20000 for three years at 4% a year. Find the interest under simple interest and under annual compounding, and the difference.	4
3	Chi-ming borrows $12000 on a credit card at 2.5% interest per month and makes no further purchases. What does he owe after a year, and what is the effective annual rate? Why is it above 2.5% x 12?	5
4	Chi-ming considers leaving a job paying $16000 a month to study full time for a year, with tuition of $20000. What does the opportunity cost include? Explain in dollar terms.	4

Part B - Demand, Supply and Price (17 marks)

For a good, demand is Qd = 400 - 20P and supply is Qs = 20P (P is price, Q is quantity).

#	Question	Marks
5	Find the equilibrium price and quantity.	5
6	When price rises from $10 to $12, calculate the price elasticity of demand by the mid-point method and state the type of elasticity.	4
7	If the government sets a price ceiling of $8, what happens in the market and by how much?	4
8	Compare total revenue (P x Q) at $10 and at $12, and explain the change using elasticity.	4

Part C - Public Finance and Macro Indicators (17 marks)

Use the data below, showing your working and adding a comment.

#	Question	Marks
9	The highest price consumers will pay is $20. What is consumer surplus at a price of $10?	5
10	Government revenue is $6000 billion and spending $7200 billion. Find the surplus or deficit and its size as a percentage of revenue.	4
11	A taxpayer has net chargeable income of $348000. The standard rate is 15%; progressive rates are 2% on the first 50,000, 7% on the next 50,000, 12% on the next 50,000 and 17% on the remainder. Compute both and state the tax payable.	4
12	Nominal GDP grows 5% while population grows 1%. Find the growth of GDP per capita. With 132000 unemployed and a labour force of 3800000, find the unemployment rate.	4

Part D - Trade, Exchange Rates and Tariffs (16 marks)

Answer each question and explain the effect on Hong Kong.

#	Question	Marks
13	Exports are $4000 billion and imports $4500 billion. Find the trade balance and the deficit as a percentage of imports.	4
14	One Hong Kong dollar buys 0.92 yuan. What is a good priced at CNY 368 in Hong Kong dollars? If the yuan appreciates, what happens to Hong Kong shoppers spending across the border?	4
15	An import has a CIF value of $200 and faces a 10% tariff. Find the duty and the landed cost, and explain the effect on local consumers.	4
16	Local emissions per person are 6.0 tonnes against a world average of 4.7 tonnes. By what percentage is the local figure higher, and what would it be after a 20% cut?	4

Part E - Sustainability and Resources (16 marks)

Use the electricity and waste data below; calculate and then suggest action.

#	Question	Marks
17	Monthly use is 350 kWh, charged at $0.9 for the first 100 kWh, $1.2 for the next 150 and $1.5 thereafter. Find the bill.	4
18	Municipal solid waste is 11,000 tonnes a day and 3,300 tonnes are recovered. Find the recovery rate, and the tonnage needed to reach 40% with the same total.	4
19	Producing one kilogram of beef emits 27 kg of carbon dioxide equivalent and one kilogram of vegetables 2 kg. How many times more is beef, and how much is saved each year by eating 2 kg less beef a week?	4
20	A shower uses 10 litres a minute. How much water does an 8-minute shower use, and how much and what percentage is saved by cutting it to five minutes?	4

Part F - Civic Participation and the Rule of Law (16 marks)

Use the community and election data; calculate and explain the value of civic participation.

#	Question	Marks
21	In an election with 120,000 valid votes and 5 seats, find the quota under proportional representation. A list wins 30,000 votes: how many seats and what remainder?	4
22	There are 620,000 registered electors and 217,000 voted. Find the turnout, and explain the effect of a low turnout.	4
23	A consultation receives 480 submissions: 300 support the policy and 120 oppose it, the rest raising other points. Find the support and opposition shares and advise the government.	4
24	A student volunteers 3 hours a week for 40 weeks. How many hours is that in a year? Give two ways of taking part in community affairs and their value.	4