

Level 3 International Foundation Diploma for Higher Education Studies

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Introductory Economics

SAMPLE EXAMINATION

This specimen assessment material is devised from previous past papers to reflect the single examination assessment approach now taken for this unit in the Level 3 International Foundation Diploma for Higher Education Studies.

Time allowed: 2 hours

Marking Scheme

This marking scheme has been prepared as a guide only to markers. This is not a set of model answers, or the exclusive answers to the questions, and there will frequently be alternative responses which will provide a valid answer. Markers are advised that, unless a question specifies that an answer be provided in a particular form, then an answer that is correct (factually or in practical terms) must be given the available marks.

If there is doubt as to the correctness of an answer, the relevant NCC Education materials should be the first authority.

Throughout marking, please credit any valid alternative point.

Candidate Name and ID number:		
Marker's comments:		
Moderator's comments:		
Mark:	Moderated mark:	Final mark:
Penalties applied for academic malpractice:		

Question 1

- a) Define the term "opportunity cost" and explain its significance in economics. 3

Marking Scheme:

Opportunity cost is the value of the next best alternative that is given up when a decision is made. (1 mark) It is fundamental to economic thinking because resources are scarce and every choice involves a trade-off. (1 mark) Understanding opportunity cost helps individuals and policymakers make better decisions by comparing the relative value of different alternatives. (1 mark)

- b) List and explain the THREE (3) fundamental economic questions all societies must address. 3

Marking Scheme:

Due to the scarcity of resources and unlimited wants, societies must make these three fundamental questions.

What to produce? This question determines how societies decide which goods and services to produce and in what quantities, based on consumer preferences and the availability of resources. (1 mark)

How to produce? This concerns the choice of production techniques, whether labour-intensive or capital-intensive, and aims to maximise efficiency. (1 mark)

For whom to produce? This relates to the distribution of output among individuals or groups within society, influenced by income levels, market forces, or government policies. (1 mark)

However, the above-mentioned fundamental questions are addressed differently in different economic systems. (capitalist, socialist, and mixed economy).

- c) Distinguish between positive and normative economics. Provide ONE (1) example of each. 4

Marking Scheme:

Positive economics is based on factual statements that can be tested or proven. (1 mark) Example: "An increase in interest rates will reduce consumer spending." (1 mark)

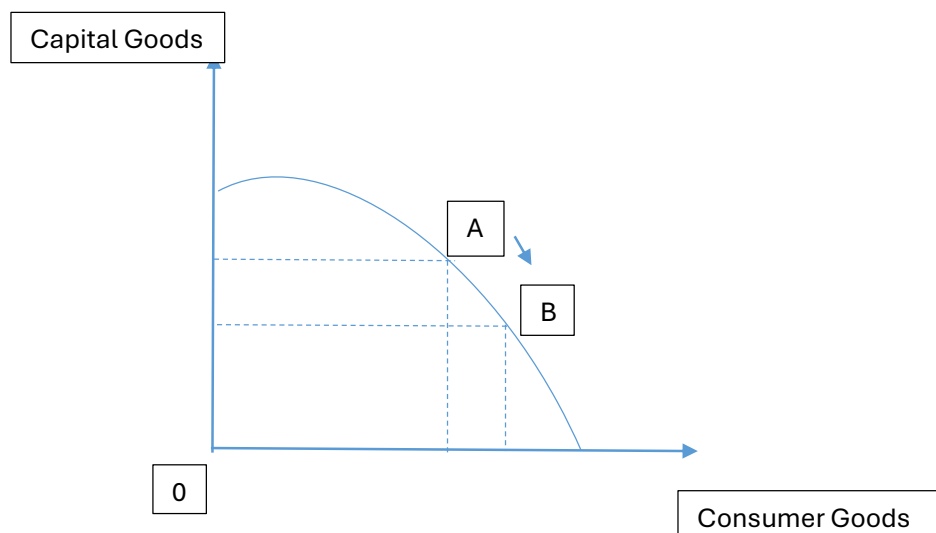
Normative economics involves subjective judgments and opinions about what ought to be. (1 mark) Example: "The government should increase the minimum wage to reduce poverty." (1 mark)

Positive statements aim to describe how the economy functions, while normative statements suggest how the economy should function based on values.

"In conclusion, positive economics explains 'what is,' while normative economics explains 'what should be.'

- d) Using a simple production possibility frontier (PPF), explain the concept of economic efficiency. Illustrate how opportunity cost is reflected along the PPF.

Marking Scheme:



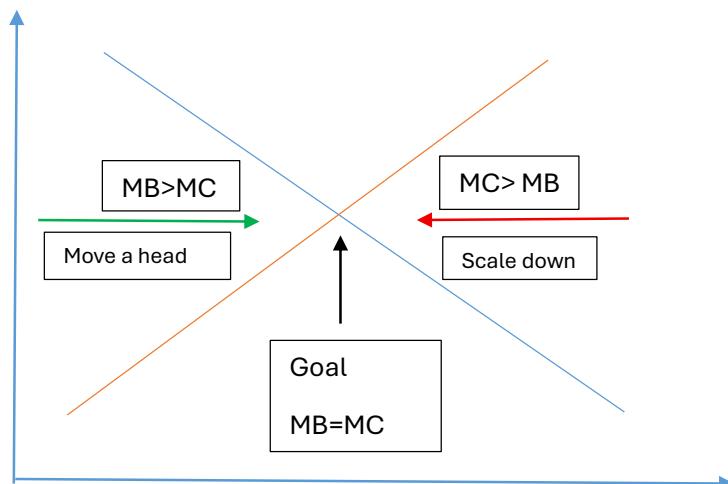
The production possibility frontier (PPF) is a graph that shows the maximum possible output combinations of two goods or services (1 mark) that can be produced with available resources and technology (1 mark). A point on the PPF represents economic efficiency, where all resources are used fully and efficiently (1 mark).

The graph above shows that any point on the PPF, whether point A or B, represents productive efficiency. The economy cannot increase the production of one good without decreasing the production of another.

Moving along the PPF shows the opportunity cost: to produce more of one good, some of the other good must be given up. (1 mark) A concave PPF illustrates increasing opportunity cost (1 mark) because resources are not equally suited for all types of production. A point inside the PPF indicates underutilisation of resources (1 mark)

- e) Define the term "marginal analysis" and explain how it is used in decision making. 4

Marking Scheme:



Marginal analysis is the examination of the additional benefits and costs of a decision. (1 mark) It helps determine whether the additional benefit of an action exceeds its additional cost. (1 mark). Marginal analysis examines the additional benefits and marginal costs that arise from a decision. For example, a firm may compare the marginal cost and marginal revenue of producing an extra unit of output. (1 mark) If marginal benefit exceeds marginal cost, the action is worth taking. (1 mark)

Total 20 Marks

Question 2

- a) Define the *price elasticity of demand* and state how it is calculated.

2

Mark scheme:

Price Elasticity of Demand (PED) definition: Price elasticity of demand measures how responsive the quantity demanded of a good is to a change in its price. It is calculated as the percentage change in quantity demanded divided by the percentage change in price. (1 mark)

Calculation formula:

$$PED = \frac{\% \Delta Q_d}{\% \Delta P}$$

Typically, the absolute value is taken to classify elasticity (with $PED > 1$ indicating elastic demand, $PED < 1$ inelastic, and $PED = 1$ unit elastic). (1 mark)

- b) The price of good X rises from \$10 to \$12, and as a result the quantity demanded falls from 100 units to 90 units.

- i) Calculate the price elasticity of demand for good X over this price change.

2

Mark scheme:

Calculate PED:

Initial price $P_1 = \$10$; New price $P_2 = \$12$.

Initial quantity $Q_1 = 100$; New quantity $Q_2 = 90$.

Percentage change in price $\approx \frac{12 - 10}{10} \times 100\% = +20\%$ (price increase).

Percentage change in quantity $\approx \frac{90 - 100}{100} \times 100\% = -10\%$ (quantity decrease).

Price elasticity of demand $= \frac{-10\%}{+20\%} = -0.5$. (The negative sign indicates the inverse relationship between price and quantity demanded.)

$PED \approx 0.5$ in absolute value.

(1 mark for correct numerical elasticity calculation, and 1 mark for showing formula or percentage changes used.)

- ii) Based on your answer in part i), determine whether the demand for good X is elastic, inelastic, or unit-elastic, and briefly explain why. 1

Mark scheme:

Elasticity type: A PED of 0.5 (in absolute value) means demand is inelastic over this price range. ($0.5 < 1$, indicating consumers are relatively unresponsive to the price change.) Consumers only reduced quantity demanded by 10% in response to a 20% price increase. (1 mark)

Explanation: Because demand is inelastic here, the percentage drop in quantity is smaller than the percentage rise in price. This implies consumers are not overly sensitive to price in this range – possibly because the good is a necessity or has few close substitutes.

- c) Based on your calculation above, what happens to the firm's total revenue when the price of good X increases from \$10 to \$12? Explain briefly. 2

Mark scheme:

Effect on total revenue: When demand is inelastic, an increase in price leads to an increase in total revenue. (1 mark)

In this scenario, raising the price from \$10 to \$12 causes only a small drop in quantity (demand is inelastic). The higher price more than compensates for the lower quantity sold. Thus, the firm's total revenue will increase.

Calculation check: At \$10, revenue was $\$10 \times 100 = \$1,000$. At \$12, revenue is $\$12 \times 90 = \$1,080$. Revenue has risen, which is consistent with inelastic demand. (1 mark)

- d) When the price of a normal good decreases, what is the substitution effect and income effect on the quantity consumed of that good?

Mark scheme:

Substitution effect vs. Income effect (price decrease for a normal good):

Substitution Effect: When the price of a good falls, the good becomes relatively cheaper compared to other goods. Consumers will tend to substitute toward the now cheaper good, increasing the quantity demanded of that good. (They buy more of the good that is relatively less expensive.) (1 mark)

Income Effect: A price drop effectively increases the consumer's real purchasing power (their money can buy more overall). For a normal good, this increase in real income leads to buying more of the good because the consumer feels richer. Thus, quantity demanded also rises due to the income effect. (1 mark)

Combined effect: For a normal good, both the substitution and income effects work in the same direction (both increase quantity demanded when price falls).

- e) Explain the difference between a normal good and an inferior good. What would you expect to happen to the demand for each type of good if consumers' incomes rise? Give an example of each type of good.

4

Mark scheme:

Normal vs. Inferior goods (income rise effect):

Normal Good: A normal good is one for which demand increases when consumer income rises. (Conversely, demand falls when income falls.) Consumers spend more on these goods as they have more income.

Example: New cars are a normal good – as people earn higher incomes, they are more likely to buy or upgrade cars. If consumers' incomes increase, the demand curve for a normal good shifts to the right (higher demand at every price). (2 marks: 1 for definition & effect, 1 for example)

Inferior Good: An inferior good is one for which demand decreases when consumer income rises. These are often goods that consumers replace with better alternatives once they can afford to.

Example: Instant noodles might be an inferior good – at very low incomes, people buy a lot of instant noodles, but as their income grows, they buy less of them, switching to higher-quality or fresh food. With an income rise, the demand curve for an inferior good shifts leftward (lower demand at every price) because consumers now purchase less of it. (2 marks: 1 for definition & effect, 1 for example)

When income rises, Demand for the normal goods increases, and Demand for the inferior goods decreases.

- f) Assume the price of a complementary good for good Y falls. How will this affect the demand for good Y? Explain briefly. 2

Mark scheme:

Effect of a complementary good's price fall: If the price of a complement to good Y decreases, the demand for good Y will increase (its demand curve shifts to the right). (1 mark)

Explanation: Complementary goods are used together. A lower price for one complement (say, printers becoming cheaper) makes it more attractive to buy that good, which in turn raises demand for the other complementary good (printer ink, in this example). Consumers will buy more of good Y because its complement is now more affordable. For instance, cheaper gasoline (complement) can increase the demand for cars (other complement), since operating a car becomes less expensive. (1 mark)

- g) Suppose the government imposes a price ceiling (maximum price) on a product that is below the market equilibrium price. 5

Illustrate with a supply-demand diagram and explain the effects on the market: specifically, discuss the outcome in terms of quantity demanded, quantity supplied, any resulting shortage or surplus, and the impacts on consumers and producers (including any deadweight loss).

Mark scheme:

Price ceiling below equilibrium – Graphical analysis:

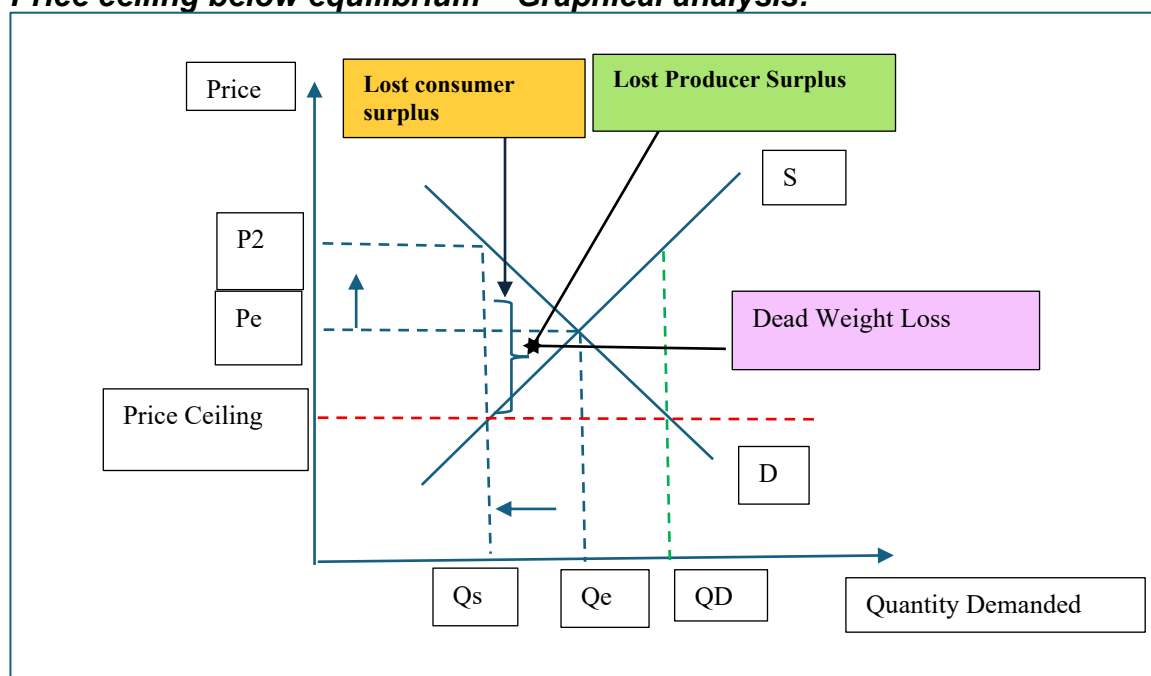


Diagram Explanation: On a supply and demand diagram, a price ceiling set below the equilibrium price (an enforced maximum price) will appear as a horizontal line below the natural intersection of supply and demand. This ceiling prevents the price from rising to the equilibrium level. (No direct marks, but for context in explanation)

Market outcome (shortage): At the imposed price ceiling, the quantity demanded exceeds the quantity supplied. Consumers want to buy more at the low price, but producers are unwilling to supply as much at that price. This results in a shortage equal to the difference between Q_d and Q_s at the ceiling price. (1 mark)

Quantity effects: Because of the shortage, the actual quantity exchanged in the market will typically be the quantity supplied (which is less than quantity demanded). Some consumers who want the product at the ceiling price cannot obtain it, because there isn't enough to go around. (1 mark)

Impact on consumers: Consumers who do manage to buy the product at the lower price benefit from paying less (some enjoy increased consumer surplus). However, other consumers are worse off because the shortage means many face rationing or cannot get the product at all. Non-price rationing mechanisms (like long queues or lotteries) may emerge due to the shortage. (1 mark)

Impact on producers: Producers sell a smaller quantity at a lower price, reducing their revenue. Producer surplus falls because producers receive a lower price and sell fewer units. Some efficient producers might leave the market over time if the price ceiling makes production unprofitable. (1 mark)

Deadweight loss (overall welfare): The price ceiling causes a deadweight loss – a net loss of economic efficiency. Mutually beneficial transactions that would occur at the equilibrium price (between the would-be equilibrium quantity and the lesser quantity supplied under the ceiling) are prevented. Both total consumer and producer surplus are reduced compared to the free-market equilibrium, meaning the economy is not reaching maximum total surplus. The deadweight loss is the total value of these missed gains – it represents the combined surplus that neither buyers nor sellers receive. (1 mark)

Summary: A binding price ceiling (below equilibrium) leads to a shortage and inefficiencies: some consumers benefit from lower prices, but others are unable to find the product, producers earn less, and there is an overall loss of welfare due to underproduction.

Total 20 Marks

Question 3

- a) Distinguish between fixed and variable costs with examples. 4

Marking Scheme:

Fixed costs remain constant regardless of the level of output (e.g., rent, insurance). (1 mark)

These are incurred even if the output is zero. (1 mark)

Variable costs vary directly with output (e.g., wages for hourly workers, cost of raw materials). (1 mark)

More output means higher total variable cost. (1 mark)

- b) Define and explain the law of diminishing marginal returns. Provide a numerical example. 4

Marking Scheme:

The law of diminishing marginal returns states that if one input increases while others are held constant, the marginal product of that input will eventually decrease. (1 mark)

Example:

1 worker produces 10 units

2 workers produce 25 units (MP = 15) (1 mark)

3 workers produce 35 units (MP = 10) (1 mark)

4 workers produce 40 units (MP = 5) (1 mark)

This shows declining additional output per worker after a certain point.

- c) Explain the difference between accounting profit and economic profit. 3

Marking Scheme:

Accounting profit = Total revenue - Explicit costs (e.g., wages, rent). (1 mark)

Economic profit = Total revenue - (Explicit + Implicit costs). Implicit costs include opportunity costs, like the owner's foregone salary. (1 mark)

A firm may show positive accounting profit but zero or negative economic profit if opportunity costs are high. (1 mark)

- d) A firm's total cost of producing 50 units is \$500. The marginal cost of the 51st unit is \$15. The price per unit is \$12. 4

Should the firm produce the 51st unit? Justify your answer.

Marking Scheme:

The marginal cost of producing the 51st unit is \$15 (1 mark), but the firm can only sell it for \$12. (1 mark).

Since $MC > Price$, producing the unit would reduce total profit by \$3. (1 mark).

Therefore, the firm should not produce the additional unit. (1 mark)

- e) Briefly explain economies of scale and diseconomies of scale with examples.

Marking Scheme:

Economies of scale occur when increasing production lowers average cost. (1 mark)

Causes include: (Maximum 2 marks)

- ***Bulk purchasing (1 mark)***
- ***Specialisation of labour (1 mark)***
- ***Spreading fixed costs over more units (1 mark)***

Diseconomies of scale arise when further expansion increases average cost (1 mark)

Causes include: (Maximum 2 marks)

- ***Management inefficiencies (1 mark)***
- ***Communication breakdowns (1 mark)***
- ***Worker demotivation (1 mark)***

Maximum 5 marks for this question.

Total 20 Marks

Question 4

- a) Define and differentiate between frictional, structural and cyclical unemployment. For each type of unemployment, briefly describe its cause or provide an example. **6**

Mark scheme:

Types of Unemployment: (2 marks each type – 1 for definition, 1 for cause/example)

- **Frictional Unemployment:** *This is short-term, normal unemployment that occurs when people are between jobs or entering the labour force. Even in a healthy economy, there will always be some frictional unemployment as workers quit to find better jobs, new graduates search for their first job, or people relocate. (1 mark)*
Example: A college graduate spending a few months looking for a job that fits her skills, or a worker who left one job and is interviewing for another, is experiencing frictional unemployment. (1 mark)
- **Structural Unemployment:** *Structural unemployment occurs when there is a mismatch between workers' skills (or location) and the skills required (or location of jobs) in the economy. It's often longer-term and caused by structural changes like technological advances or shifts in industries. Certain jobs become obsolete and affected workers may not easily transition to new roles without retraining or moving. This is long term and require retraining or relocation. (1 mark)*
Example: If automation advances and factories require fewer assembly-line workers, those workers without new skills may become structurally unemployed. Another example is regional decline – a coal miner in a region where mines close will be unemployed if he cannot relocate or retrain for a different industry. (1 mark)
- **Cyclical Unemployment:** *This type is caused by economic downturns or recessions – it's the unemployment attributable to a lack of demand for goods and services in the overall economy. When the business cycle is in a contraction, firms lay off workers and hiring freezes, increasing unemployment above its normal (frictional structural) level. Cyclical unemployment rises during recessions and falls during expansions. (1 mark)*
Example: During a recession, a car company might lay off workers because car sales are down. Those layoffs represent cyclical unemployment, which will diminish when the economy recovers and demand picks up again. (1 mark)

- b) In an economy, the total population is 50 million. Of these, 27 million people are employed and 3 million are unemployed.

Calculate the unemployment rate for this economy.

Mark scheme:

Unemployment rate calculation: The labour force consists of employed + unemployed persons.

Here:

Employed = 27 million, Unemployed = 3 million.

Labour force = 27 + 3 = 30 million.

$$\text{Unemployment rate} = \frac{\text{Number of Unemployed}}{\text{Labour force}} * 100$$

$$= (3 \text{ million} / 30 \text{ million}) \times 100\% = 0.10 \times 100\% = 10\%.$$

(Give full 2 marks for the correct unemployment rate with proper working. If only the correct percentage is stated with no work, ONLY 1 mark is given.)

- c) As an economy begins to recover from a recession, previously discouraged jobseekers begin looking for work again at the same time that firms are starting to hire.

Explain how the unemployment rate might behave in the short term during this early recovery phase, and why.

Mark scheme:

Unemployment in early recovery: When the economy initially begins to recover from a recession, it's possible for the measured unemployment rate to rise temporarily, even though employment is increasing. (1 mark)

Reason: During the recession, some jobless individuals became discouraged and stopped actively searching for work, so they were not counted as "unemployed" (they left the labour force). As recovery starts and job prospects improve, these discouraged workers re-enter the labour force to look for jobs again. This increases the number of people classified as unemployed (since they are now actively seeking work but haven't yet found jobs). (1 mark)

At the same time, firms are indeed starting to hire (employment is rising), but because the labour force is expanding even faster with returning jobseekers, the unemployment rate can tick up initially. In summary, the labour force grows as optimism returns, and not all jobseekers find work immediately, causing the unemployment rate to stay the same or even increase slightly in the short run of a recovery. (1 mark)

Once the recovery is well underway, job creation should outpace labour force growth, and the unemployment rate will then fall. This is a normal and expected part of the recovery process.

- d) After several years of expansion, an economy starts to experience declining industrial output and rising unemployment.

Identify the phase of the business cycle the economy is likely entering **and** discuss the likely implications of this phase for businesses and policymakers (e.g. effects on profits, employment and possible policy responses).

Mark scheme:

Business cycle phase – entering recession & implications: *The described signs (decreasing industrial production and rising unemployment after a period of growth) indicate the economy is likely entering a recession (the downturn phase of the business cycle). (1 mark)*

Implications for businesses and policymakers: *(Any four key points, 1 mark each to a maximum of 4 marks)*

- **Reduced consumer spending:** *During a recession, consumers generally cut back on spending (especially on non-essential and big-ticket items) due to uncertainty or declining incomes. Businesses experience falling sales revenue as demand for their products declines. (1 mark)*
- **Pressure on businesses:** *Firms may see their profits shrink. In response to reduced demand, businesses often curtail investment plans, cut costs, or even implement layoffs to survive the downturn. Some firms (particularly those in luxury or cyclical sectors) might go out of business if the recession is severe or prolonged. (1 mark)*
- **Rising unemployment:** *As mentioned, unemployment rises in a recession. With production slowing, companies need fewer workers. This leads to job losses beyond the initial increase described; the labour market slackens and wage growth typically slows (or wages may even stagnate or fall in real terms) due to the excess supply of labour. (1 mark)*
- **Policy response – stimulus:** *Policymakers (the government and central bank) are likely to consider expansionary policies. For example, fiscal policy might be loosened – governments could increase public spending or cut taxes to stimulate demand. Likewise, the central bank might implement monetary easing – cutting interest rates or using other measures to encourage borrowing and investment. These actions aim to shorten the recession and support recovery. (1 mark)*
- **Inflationary pressure eases:** *Typically, as the economy enters a recession, inflation tends to slow down because demand is weaker and resource utilisation falls. This gives central banks room to reduce interest rates without much fear of overheating the economy. (A potential implication for policymakers is that deflation, rather than inflation, could become a concern if the recession is deep, but primarily, easing inflation allows aggressive stimulus.) (1 mark)*

(Marker's note: *The answer may also mention that during recession, interest rates often fall, stock markets may decline, and firms focus on efficiency. Any other valid implication of a recessionary phase earns credit.***)**

- e) Explain how inflation can affect savers, borrowers and workers differently. Provide ONE (1) example for each group. 4

Mark Scheme

Savers: Inflation reduces the purchasing power of saved money. If interest earned on savings is lower than the inflation rate, real returns are negative.

Example: A person saving at 2% interest loses value in real terms if inflation is 5%. (1 mark)

Borrowers: Inflation benefits borrowers if they repay loans in devalued money. The real burden of debt decreases.

Example: A mortgage holder with a fixed interest rate repays in “cheaper” money. (1 mark)

Workers (Wage earners): If wages do not keep pace with inflation, real income falls, reducing living standards.

Example: A worker whose salary increases by 3% while inflation is 6% experiences a 3% drop in real income. (1 mark)

Explanation of unequal impact: Inflation redistributes purchasing power, helping some (borrowers) and hurting others (savers, fixed-income earners). (1 mark)

Total 20 Marks

Question 5

- a) A manufacturing company incurs a monthly rent of \$50,000 for its factory and spends \$2 on raw materials for each unit of product produced.

2

Identify which of these costs is fixed and which is variable and briefly explain your reasoning.

Mark scheme:

Fixed vs. Variable cost identification: The factory rent is a fixed cost. This cost does not change with the level of output – the company pays \$50,000 per month for the facility regardless of how many units are produced (even if production is zero, rent is still due). (1 mark)

In contrast, the cost of raw materials per unit (\$2 per unit) is a variable cost. It rises with output – the more units produced, the more total is spent on raw materials. If production doubles, total spending on raw materials will roughly double as well, whereas the rent remains unchanged. (1 mark)

Explanation: Fixed costs are incurred in the short run and do not depend on production volume, while variable costs fluctuate with output. Here, rent is fixed (a contractual monthly expense), and raw material costs vary directly with the quantity produced.

- b) The information below shows the output of a factory as the number of workers increases:

- 1 worker produces 12 units
- 2 workers produce 28 units
- 3 workers produce 50 units
- 4 workers produce 60 units
- 5 workers produce 65 units

Calculate the marginal product of labour for each additional worker hired (for the 2nd through 5th workers). At what point does diminishing marginal returns set in?

Mark scheme:

Marginal product of labour & diminishing returns:

First, compute the marginal product (MP) for each additional worker (the increase in output from adding that worker):

Output with 1 worker = 12 units. (No previous worker to compare, so MP of first worker = 12 by definition.)

Output with 2 workers = 28 units $\Rightarrow$ MP of 2nd worker = $28 - 12 = 16$ units. (1 mark)

Output with 3 workers = 50 units $\Rightarrow$ MP of 3rd worker = $50 - 28 = 22$ units. (1 mark)

Output with 4 workers = 60 units $\Rightarrow$ MP of 4th worker = $60 - 50 = 10$ units. (1 mark)

Output with 5 workers = 65 units $\Rightarrow$ MP of 5th worker = $65 - 60 = 5$ units. (1 mark)

Now, diminishing marginal returns means that beyond some point, each additional worker contributes less additional output than the previous worker did. Looking at the marginal products:

The MP rose from 16 (2nd worker) to 22 (3rd worker), indicating increasing returns up to the 3rd worker.

Then MP fell sharply to 10 for the 4th worker. This drop indicates the onset of diminishing returns. Diminishing marginal returns set in with the hiring of the 4th worker, because the 4th worker's marginal product (10) is significantly lower than the 3rd worker's marginal product (22). (1 mark)

(We see that after the 3rd worker, each additional worker adds less output than the previous one did. The production process likely became less efficient as more workers were added – e.g., due to overcrowding or limited machinery per worker.)

- c) A firm currently produces ONE HUNDRED (100) units of output using TEN (10) workers and FIVE (5) machines. The firm is said to experience increasing returns to scale.

If the firm doubles both inputs to TWENTY (20) workers and TEN (10) machines, what would you expect to happen to the firm's output? Explain briefly.

Marking scheme:

Increasing returns to scale scenario: If the firm experiences increasing returns to scale, doubling all inputs (labour and machines) will result in more than double the output. (1 mark)

In the scenario given: initially 10 workers + 5 machines → 100 units of output. If inputs are doubled to 20 workers + 10 machines and the firm truly has increasing returns to scale, the new output would exceed 200 units. Expected outcome: The output might increase to, say, 220 or 250 units (the exact number isn't given, but it should be greater than 200). The key point is that output grows by a higher proportion than the increase in inputs. (1 mark)

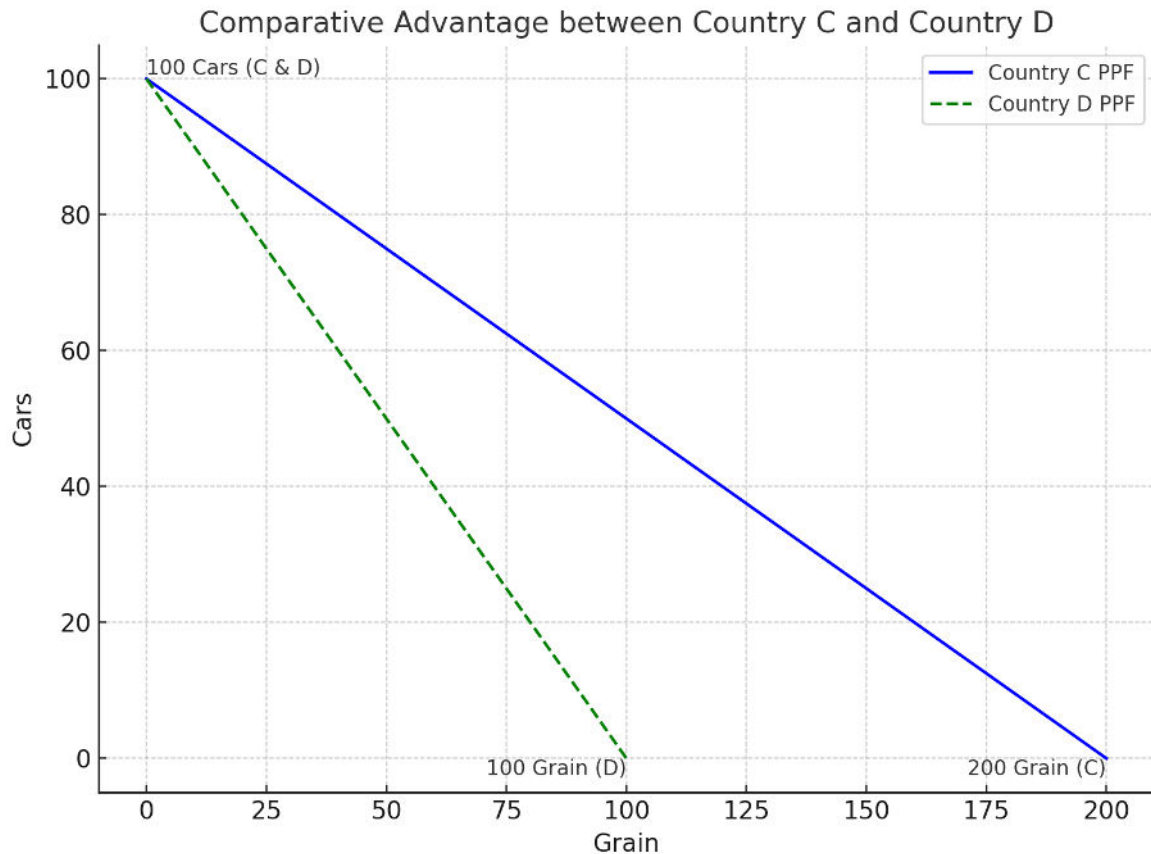
Why: Increasing returns to scale means the firm's technology or production process becomes more efficient at a larger scale. Reasons could include specialisation, more efficient use of fixed resources, or economies of scale. For example, with more workers and machines, they can specialise in tasks, or previously underutilised equipment can be used more fully, leading to disproportionate output gains. (1 mark)

In summary: Doubling inputs under increasing returns to scale yields an output increase of more than 100%; the firm's productivity per unit of input improves at the larger scale.

- d) Two countries, Country C and Country D, each produce grain and cars. Country C can produce grain more efficiently than Country D, while Country D can produce cars more efficiently than Country C.

Explain, using the concept of comparative advantage, how these TWO (2) countries can both gain from trade with each other.

Mark scheme:



Comparative advantage and gains from trade: Comparative advantage means each country should specialise in producing the goods that it can produce relatively more efficiently (at lower opportunity cost) than its trading partner.

In this case, Country C has a comparative advantage in grain, and Country D has a comparative advantage in cars. Each country should specialise in the production of the good where its efficiency or productivity advantage is greatest (or its disadvantage is smallest). (1 mark)

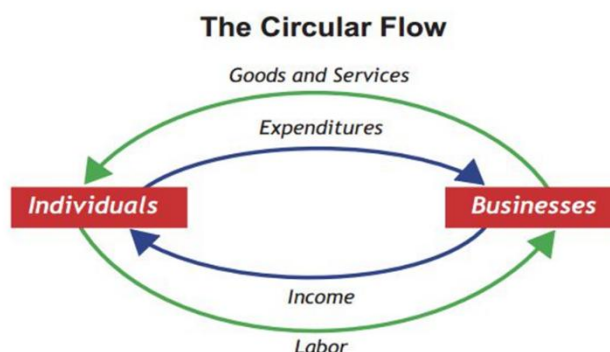
Specialisation: Country C specialises in producing grain (producing more grain than it needs and not producing cars), while Country D specialises in producing cars. By doing so, both countries can focus resources on their most productive activities. (1 mark)

Trade: They then trade grain for cars. For example, Country C can trade part of its grain surplus to Country D in exchange for cars from Country D's surplus production. As long as the terms of trade (the rate of exchange between grain and cars) lie between their respective opportunity costs, both countries benefit. (1 mark)

Mutual gains: Through specialisation and exchange, both countries end up with more grain and more cars than they could have achieved on their own without trade. In other words, trade allows them to consume beyond their individual production possibility frontiers. Even if one country is absolutely more efficient in producing everything, both can still gain from trade because what matters is comparative (relative) efficiency. (1 mark)

- e) Briefly explain how the circular flow of income and expenditure demonstrates that total output, total income and total spending are equal in a closed economy.

Mark scheme:



Circular flow and equality of output = income = expenditure: In the circular flow model of an economy, households provide factors of production (like labour, capital) to firms, and firms produce goods and services for households. This creates two corresponding flows:

Expenditure flow: Households spend money to buy goods and services produced by firms (this is total expenditure in the economy).

Income flow: Firms pay incomes to households for the use of their factors (wages, rent, interest, profit – this constitutes total income).

These flows are equal in value in equilibrium because every dollar spent on a good or service by a buyer becomes a dollar of income for someone else (the seller or resource owner). (1 mark)

Total Output = Total Income: The value of all final goods and services produced (output) is received as income by the owners of the factors that produced them. For example, if \$1 million worth of cars are produced and sold, that \$1 million becomes income to workers (wages), investors (interest), landowners (rent), and entrepreneurs (profits). (1 mark)

Total Expenditure = Total Output: Similarly, the total expenditure on goods and services in the economy must equal the value of goods and services produced (output). If no goods are unsold (inventories can be treated as purchased by firms themselves), whatever is produced is purchased by someone – be it households, firms (investment), the government, or foreigners (net exports). Thus, the sum of consumption, investment, government spending, and net exports (total demand) equals the value of output. (1 mark)

In essence, the circular flow diagram shows that one person's spending is another person's income. Therefore, aggregate expenditure = aggregate output = aggregate income. Any divergence (like unplanned inventory changes) is temporary; in equilibrium, they align, which is the foundation for national income accounting identity:

Y (Income) = $C + I + G + NX$ (Expenditure) = value of output.

- f) Identify TWO (2) common measures of inflation. In particular, name an index that measures consumer prices and an index that measures inflation from a producer or business perspective and briefly describe the focus of each index.

Mark scheme:

Inflation indices – consumer vs. producer perspective:

A commonly used consumer price inflation index is the Consumer Price Index (CPI). The CPI measures the average change in prices over time that consumers pay for a typical “basket” of household goods and services. It reflects consumer price inflation – essentially the cost of living for an average household. In the UK, for example, the CPI (and a variant CPIH, which includes housing costs) are official measures of consumer inflation. (1 mark)

OR

Another measure is the Retail Price Index (RPI), which is also used in the UK (though less now for official targeting). RPI is similar to CPI but includes some different items and calculation methods (like certain housing costs). (Mentioning RPI is optional for credit; at least one consumer index should be identified.) (1 mark)

→ ONLY 1 mark for the index measuring consumer price changes.

An inflation index focusing on businesses or producers is the Producer Price Index (PPI). The PPI tracks the average change in selling prices received by domestic producers for their output (or the change in prices of inputs purchased by producers, depending on the measure). In other words, it measures price changes from the perspective of the producer or wholesaler rather than the consumer. For example, a PPI might measure the cost of raw materials, intermediate goods, or finished goods at the factory gate. (1 mark)

Difference in focus: The CPI (and RPI) gauge the inflation experienced by consumers in their everyday purchases, whereas the PPI gauges inflation in the production process (upstream price changes). Often, PPI increases can signal future CPI increases as higher input costs eventually pass through to consumers. Each index serves different purposes: CPI for cost of living adjustments and monetary policy targeting, and PPI for understanding inflationary pressure in the supply chain. (1 mark)

Total 20 Marks

End of paper

Learning Outcomes Matrix

Question	Learning Outcomes / Assessment Criteria assessed	Marker can differentiate between varying levels of achievement
1	LO1, LO2	Yes
2	LO2	Yes
3	LO1, LO2	Yes
4	LO3	Yes
5	LO1 and LO3	Yes

Grade Descriptors

Learning Outcome	Pass (40-59%)	Merit (60-69%)	Distinction (70-100%)
1. Acquire a firm grounding in introductory microeconomic theory and supply and demand, and recognise the key theoretical explanations of individual, firm and industry behaviour.	Demonstrates adequate knowledge and understanding of the subject matter.	Demonstrates good knowledge and understanding of the subject matter.	Demonstrates comprehensive knowledge and understanding of the subject matter.
2. Evaluate and critically analyse microeconomic arguments, theories and policies regarding the price system.	Provides consistent interpretation and evaluation of relevant information and ideas to complete tasks, address well defined problems, and give appropriate justification for conclusions.	Provides critical interpretation and evaluation of relevant information and ideas to complete tasks, address well defined problems, and give well explained and appropriate justification for conclusions.	Provides consistently critical interpretation and evaluation of relevant information and ideas to complete tasks, address well defined problems, and give well explained and highly appropriate justification for conclusions.
3. Develop a solid grasp of macroeconomic theory and analyse and use analytical models for applications.	Demonstrates adequate ability to review effectiveness of methods, actions and results. Can adequately identify, select, and use appropriate information and/or skills, methods, and procedures to reach appropriate conclusions. Uses appropriate investigation and/or analysis of supplied information to inform conclusions.	Demonstrates sound ability to review effectiveness of methods, actions, and results. Can soundly identify, select, and use appropriate information and/or skills, methods, and procedures to reach well explained and appropriate conclusions. Uses detailed investigation and/or detailed analysis of supplied information to inform conclusions.	Demonstrates comprehensive ability to review effectiveness of methods, actions, and results. Can coherently identify, select, and use appropriate information and/or skills, methods, and procedures to reach well explained and highly appropriate conclusions. Uses thorough and detailed investigation and/or consistently critical analysis of supplied information to inform well explained conclusions.