



Coimisiún na Scrúduithe Stáit
State Examinations Commission

Leaving Certificate 2019

Marking Scheme

Economics

Higher Level

Note to teachers and students on the use of published marking schemes

Marking schemes published by the State Examinations Commission are not intended to be standalone documents. They are an essential resource for examiners who receive training in the correct interpretation and application of the scheme. This training involves, among other things, marking samples of student work and discussing the marks awarded, so as to clarify the correct application of the scheme. The work of examiners is subsequently monitored by Advising Examiners to ensure consistent and accurate application of the marking scheme. This process is overseen by the Chief Examiner, usually assisted by a Chief Advising Examiner. The Chief Examiner is the final authority regarding whether or not the marking scheme has been correctly applied to any piece of candidate work.

Marking schemes are working documents. While a draft marking scheme is prepared in advance of the examination, the scheme is not finalised until examiners have applied it to candidates' work and the feedback from all examiners has been collated and considered in light of the full range of responses of candidates, the overall level of difficulty of the examination and the need to maintain consistency in standards from year to year. This published document contains the finalised scheme, as it was applied to all candidates' work.

In the case of marking schemes that include model solutions or answers, it should be noted that these are not intended to be exhaustive. Variations and alternatives may also be acceptable. Examiners must consider all answers on their merits, and will have consulted with their Advising Examiners when in doubt.

Future Marking Schemes

Assumptions about future marking schemes on the basis of past schemes should be avoided. While the underlying assessment principles remain the same, the details of the marking of a particular type of question may change in the context of the contribution of that question to the overall examination in a given year. The Chief Examiner in any given year has the responsibility to determine how best to ensure the fair and accurate assessment of candidates' work and to ensure consistency in the standard of the assessment from year to year. Accordingly, aspects of the structure, detail and application of the marking scheme for a particular examination are subject to change from one year to the next without notice.

**LEAVING CERTIFICATE 2019
MARKING SCHEME**

**ECONOMICS
HIGHER LEVEL**

Marking Scheme and Support Notes

In considering the marking scheme and the support notes the following points should be noted:

- The support notes presented are neither exclusive nor complete and further relevant points of information presented by candidates are rewarded on their merits.
- They are not model answers but rather a sample of possible responses.
- The support notes in many cases may contain key phrases which must appear in the candidate's answer in order to merit the assigned marks.
- The detail required in any answer is determined by the context and the manner in which the question is asked and by the number of marks assigned to the answer in the examination paper. Requirements may therefore vary from year to year.
- Words, expressions or phrases must be correctly used in context and not contradicted, and where there is evidence of incorrect use or contradictions the marks may not be awarded.
- Where a candidate provides more valid points than are required in a question, the lowest scoring excess points are discounted by placing square brackets around the excess marks awarded. These excess marks are not included in the total mark for the question, *either* within the script or on the question grid on the cover, *and* nor are they included in the cumulative total.

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Summary of Mark Allocations
SECTION A (100 marks)

Question	Marks
1	(a) 6: 3+3 (b) 10
2	4@4 = 16
3	2@8 = 16
4	2@8 = 16
5	(a) 4@2=8 (b) 8
6	11 + 6
7	(a) 5+4 = 9 (b) 4+4 = 8
8	1@9 + 1@4 1@4
9	(a) 1@ 9 + 1@4 (b) 4

Section B (300 marks)

1 (a)	(i) 2@5 (ii) 3@5	5 (a)	(i) 2@5 (ii) 4@5
1 (b)	(i) Diagram: 5 Explanation: 5 (ii) Diagram: 5 Explanation: 5 (iii) Diagram: 5 Explanation: 5	5 (b)	4@4 + 4
1 (c)	(i) 12 (ii) 2@4	5 (c)	(i) 6 (ii) 7 (iii) 2@6
2 (a)	(i) 3@5 (ii) 5	6 (a)	(i) 8 (ii) 2 @ 4 (iii) 9
2 (b)	(i) Diagram: 11 Explanation: 9 (ii) 5+5	6 (b)	(i) 2@5 (2+3) (ii) 3@4 (2+2) (iii) 8
2 (c)	(i) 1 @ 9 and 2 @ 4 (ii) 2 @ 4	6 (c)	4 @ 5
3 (a)	(i) 5 (ii) 2 @ 6 and 2 @ 4	7 (a)	(i) 2@7 (ii) 2@8
3 (b)	(i) 2 @ 5 (ii) Diagrams: 2@6 Explanation: 2+2 (iii) 2@2	7 (b)	(i) 5 (ii) 5 (iii) Calculation: 5 Explanation: 4
3 (c)	(i) Calculation: 12 Explanation: 4 (ii) 4	7 (c)	(iv) 6 (i) 5 (ii) 3@5 (2+3)
4 (a)	(i) 2 @ 6 and 2 @ 4 (ii) 2@5	8 (a)	(i) 2@5 (4+1) (ii) 3@5 (2+3)
4 (b)	(i) 7 (ii) 6 (iii) 3 (iv) 4	8 (b)	(i) 3@5 (2+3) (ii) 3@5 (2+3)
4 (c)	(i) 3@5 (2+3) (ii) 2@5 (2+3)	8 (c)	(i) 6 (ii) 2@7 (4+3)

SECTION A (100 marks)

Q	Possible responses	Marks																				
1. (a)	<p>The equi-marginal principle of consumer behaviour states that consumers will spend their limited income in such a way so the ratio of marginal utility to price is the same for every good consumed in order to maximise utility.</p> <p>The equi-marginal principle states that utility is maximised when the utility for the last euro spent on each product is equalised.</p>	6 (3+3)																				
(b)	$\frac{MU_A}{P_A} = \frac{MU_O}{P_O}$ $\frac{9}{0.90} = \frac{MU_O}{0.50} \quad \frac{0.50(9)}{0.90} = MU_O \quad MU_O = 5 \text{ utils.}$	10																				
2.	<p>Indicate by means of a tick (✓) whether each of the following statements is TRUE or FALSE.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-left: 40px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 60%;">STATEMENT</th> <th style="width: 10%;">TRUE</th> <th style="width: 25%;">FALSE</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>The demand for labour is a derived demand.</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td style="text-align: center;">2.</td> <td>The Live Register is the most accurate measure of Ireland's unemployment rate.</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Cyclical unemployment is caused by a recession.</td> <td style="text-align: center;">✓</td> <td></td> </tr> <tr> <td style="text-align: center;">4.</td> <td>The backward bending labour supply curve illustrates the concept that workers substitute leisure for work as wages rise beyond a certain level.</td> <td style="text-align: center;">✓</td> <td></td> </tr> </tbody> </table>		STATEMENT	TRUE	FALSE	1.	The demand for labour is a derived demand.	✓		2.	The Live Register is the most accurate measure of Ireland's unemployment rate.		✓	3.	Cyclical unemployment is caused by a recession.	✓		4.	The backward bending labour supply curve illustrates the concept that workers substitute leisure for work as wages rise beyond a certain level.	✓		4 @ 4
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3.	<p>Economic development refers to an increase in a country's GDP per capita / level of income / standard of living / output following a fundamental change to the structure of society e.g. improvements in education, healthcare, infrastructure etc.</p> <p>Economic growth refers to an increase in a country's GDP per capita without the need for a fundamental change to the structure of society.</p>	2 @ 8 graded																				

4. **Two** main contributions to economic thought by John Maynard Keynes:

2 @ 8

Favoured government intervention - Keynes proved that national income could reach equilibrium without full employment. He stated that the best way to encourage the efficient management of an economy was through government intervention in the form of fiscal policy.

The Multiplier Effect means that an initial injection into the circular flow of income leads to a greater than proportionate increase in national income.

Liquidity preference theory states that the interest rate has very little impact on consumer's desire to hold cash. / There are three motives to hold cash namely; the transactionary motive, precautionary motive and the speculative motive.

Paradox of thrift states that an increase in saving leads to a decrease in aggregate demand which decreases national income and leads to lower total saving.

Investment - could be less than savings and cause a leakage in spending which decreased national income. The level of investment depends more on business expectations than on the rate of interest.

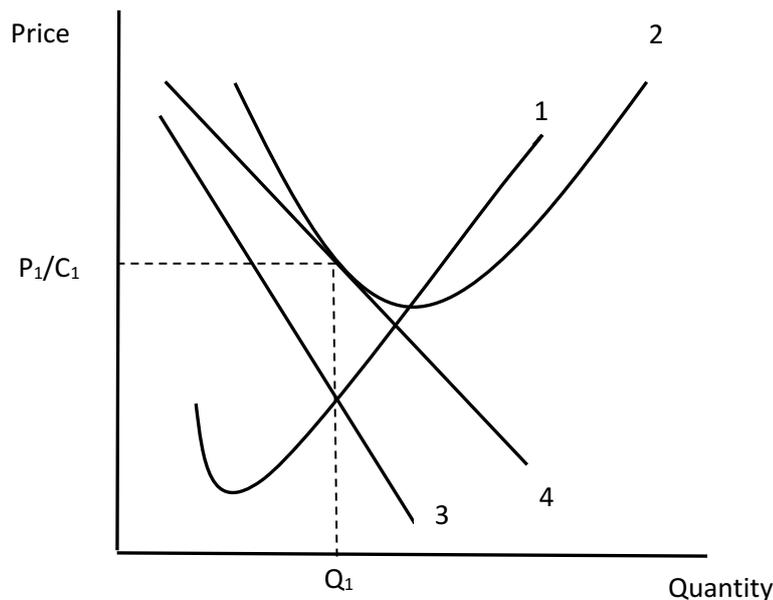
Keynes took issue with Say's Law which states that supply created demand. Keynes believed the opposite to be true – output is determined by demand (and if people don't spend enough money, unemployment is caused).

5. (a) The diagram below represents a firm the long run equilibrium of a firm in **imperfect competition**.

(i)

Number	1	2	3	4
Label	Marginal Cost	Average Cost	Marginal Revenue	Demand / Average Revenue

4 @ 2



(b)

(ii) $P_1 / C_1 / Q_1$

(iii) The firm is not earning supernormal profits only normal profits
This is because the firm produces where $AR=AC$.

3 @ 1

2

3

<p>6.</p> <p>7. (a)</p> <p>(b)</p> <p>8.</p>	<p>A Free Trade Area means that member countries can trade freely without tariffs / barriers being imposed on one another.</p> <p>A Customs Union is more advanced than a free trade area. In a customs union, member countries agree to trade freely and impose common tariffs on countries that are outside the union.</p> <p>Approximate debt to GDP ratio 70% Approximate unemployment rate 6%</p> <p>Due to increased economic growth the ratio of debt to GDP has decreased. Unemployment has continued to decrease as economic growth increases and the economy approaches full employment.</p> <p>Advantages Increased disposable income/improved standard of living. Employees will earn a larger amount of income and thus will be able to spend more on goods and services improving their standard of living.</p> <p>Incentive to work / less emigration/increased immigration. As working conditions will have improved in Ireland there will be less of an incentive for people to seek employment abroad. There will also be more of an incentive for migrant workers to come to Ireland from other countries. Rewards to employees are greater / more productive workforce.</p> <p>More equitable. More equal distribution of income across the population. The squeezed-middle are better rewarded for their efforts as the majority of their income will be taxed in a lower tax band.</p> <p>Greater consumer demand/ the multiplier effect. Greater aggregate demand can be achieved for the Irish economy as decreased taxation reduces the size of leakages from the circular flow of income reversing the negative multiplier effect.</p> <p>Reduced pressure on wage demands. Employees real income will increase as their take-home pay will have increased even though their nominal wage rate has not increased. Employees may not look for pay increases.</p> <p>Disadvantage Less government revenue from taxation. As the government increases the threshold, less of peoples' incomes will be eligible to be taxed at the higher rate meaning that the government will receive a smaller amount of tax from these workers. Opportunity cost.</p> <p>Negative impact on balance of payments. There may be a negative impact on the balance of payments on current account as people with increased take-home pay are likely to increase their consumption of goods and services. Some of these goods and services will come from abroad, impacting negatively on Ireland's balance of payments.</p>	<p>11 + 6</p> <p>5 + 4</p> <p>4 + 4</p> <p>1 @ 9 1 @ 4 graded</p> <p>4</p>
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<p>9. (a)</p>	<p>Enlarged labour force/ healthier workforce available due to medical advances / helps to fill labour shortages. The larger the workforce the more workers there are available to work in the different sectors of the economy especially those in which there are labour shortages.</p> <p>Valuable skillset and experience. More experienced workers provide valuable experience and a skillset which may not be available from other workers in these sectors.</p> <p>Increased income tax revenue for the government. With an expanded workforce there are more people earning incomes and thus paying income tax. The incomes earned by more experienced workers will be higher than new entrants into the profession and so the government will receive more income from the top tax bracket.</p> <p>Reduced government spending on pensions in short run. Due to the fact that workers will continue working beyond the age at which they are eligible for the state pension it delays the start date of the government paying their pensions.</p> <p>Recognition of a valuable part of society/ retention and sharing of organisational wisdom/ knowledge and experiences valued. Positive impact on older employees' self-esteem when taking on mentoring roles as well as benefits to younger workers in terms of expertise gained from more experienced workers.</p> <p>Improved dependency ratio with less retired people requiring pensions and more people at work the tax burden for those who are working would be reduced.</p>	<p>1 @ 9 1 @ 4 graded</p>
<p>(b)</p>	<p>Pension top-up schemes. The government could offer to top up peoples' pensions when they do retire assuming that they work a certain minimum number of years beyond the pensionable retirement age.</p> <p>Tax breaks. The government could offer tax breaks to individuals/firms who work/employ beyond the pensionable retirement age.</p> <p>Offer more flexible work arrangements. Public sector workers above the pensionable retirement age may be offered more flexible working hours such as part-time, job-sharing or working from home to allow them to fulfil caring and other roles within an organisation whilst maintaining employment.</p> <p>Investment in lifelong education and training. If CPD is offered to more experienced staff it may allow them to develop new skills and reinvigorate their work-lives.</p> <p>Investment in redesigning office or factory floors. More ergonomically designed work environments may allow workers to work for longer.</p> <p>Promotion of an age-inclusive work culture. The government / firms may run initiatives to promote older people in the workplace leading to a culture change which recognises and values the contribution made by more experienced workers.</p> <p>Abolish / increase the statutory retirement age and allow all those workers who want to work to continue to work.</p>	<p>4</p>

Possible responses

Max Mark

(b)
(i)

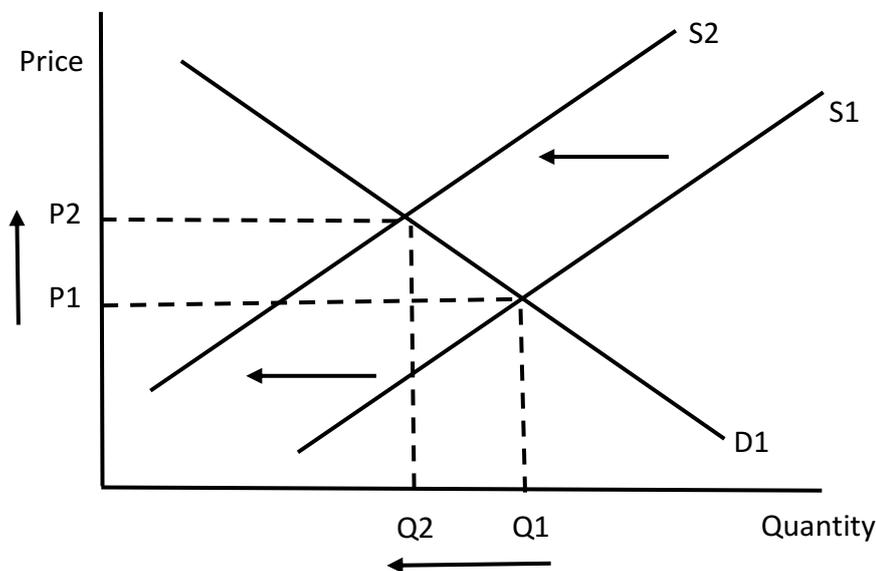


Diagram:
5 Marks

Explanation:
5 Marks

- The lack of rainfall reduces the potato crop which is a raw material used in the production of crisps.
- This will cause the supply curve for crisps to shift to the left from S1 to S2.
- The price will rise from P1 to P2.
- The quantity will fall from Q1 to Q2.

D1, S1, S2, Indication of higher equilibrium price and lower quantity: 1 mark each

Reference to reduced availability of raw materials reducing supply: 2 marks.

Shift S/C to the left, Higher P, Lower Q: 1 mark each.

(ii)

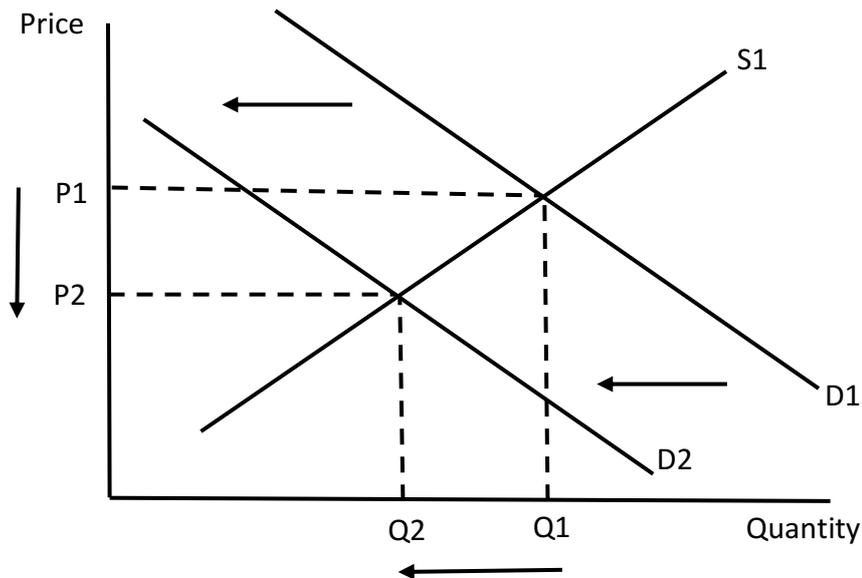


Diagram:
5 Marks

Explanation:
5 Marks

- The protests against the product will create negative publicity for the product reducing its popularity with consumers.
- This will cause the demand curve for crisps to shift to the left from D1 to D2
- The price will fall from P1 to P2.
- The quantity will decrease from Q1 to Q2.

S1, D1, D2, Indication of lower equilibrium price and lower quantity: 1 mark each

Reference to negative publicity reducing demand: 2 marks.

Shift D/C to the left, Lower P, Lower Q: 1 mark each.

(iii)

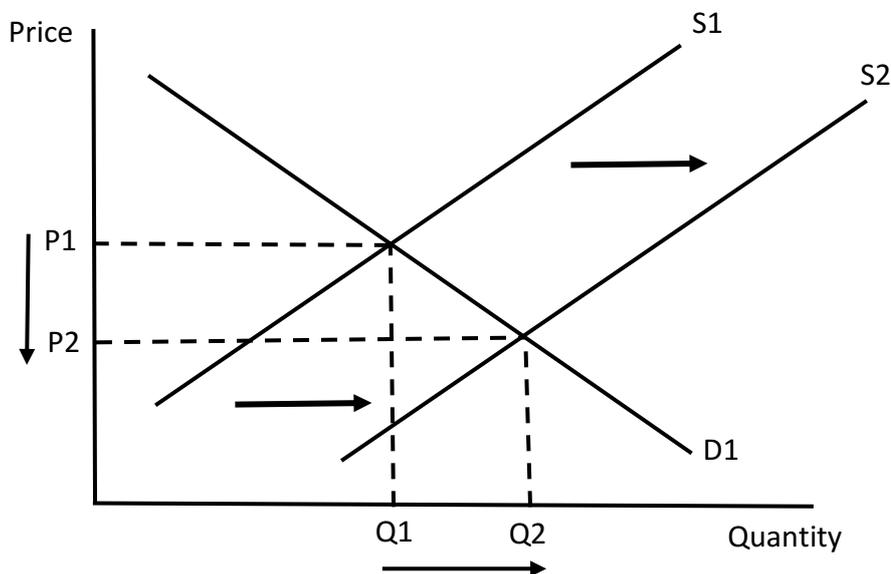


Diagram:
5 Marks

Explanation:
5 Marks

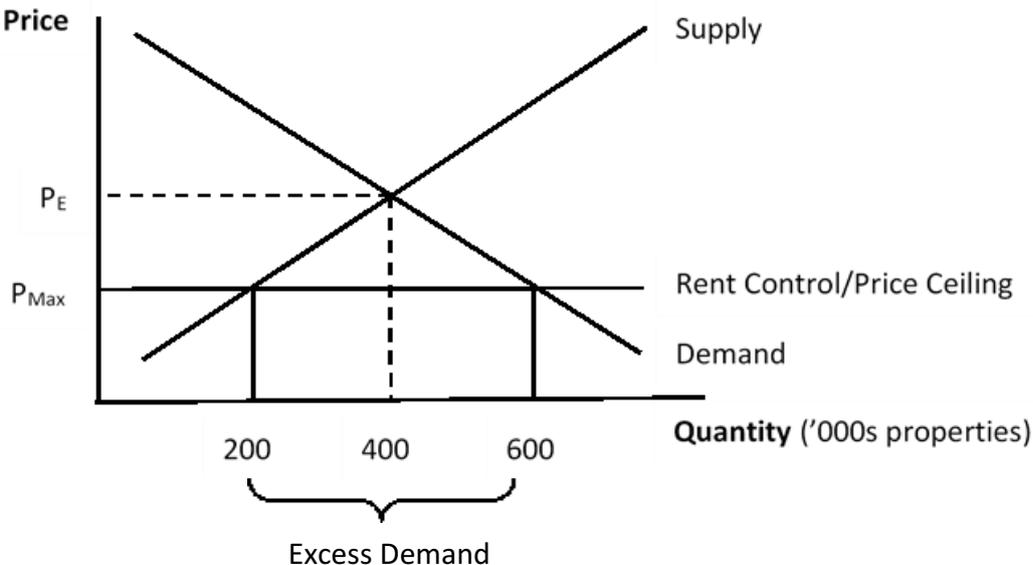
- A subsidy is a payment from the govt. to encourage the production of a good.
- This payment will cause the supply curve to shift to the right from S1 to S2.
- The price will decrease from P1 to P2
- The quantity will increase from Q1 to Q2.

D1, S1, S2, Indication of lower equilibrium price and higher quantity: 1 mark each

Reference to subsidy reducing cost of production: 2 marks.

Shift S/C to the right, Lower P, Higher Q: 1 mark each.

30

	Possible responses	Max Mark
(c)		
(i)	<p>The price has been restricted to / set at the level P_{Max}. The price level falls from the equilibrium level P_E to the new limit P_{Max}.</p> <p>Quantity supplied decreased from the equilibrium quantity of 400,000 to 200,000. Quantity demanded increased from the equilibrium quantity of 400,000 to 600,000. This creates excess demand/shortage of 400,000 (600,000 – 200,000).</p>	<p>12 graded</p>
(ii)	<p>Improved standard of living for consumers. Consumers who manage to get property to rent at this new reduced rate have surplus income left over which can be used on other goods and services thereby improving their standard of living. Less exploitation.</p> <p>Excess Demand is created. The quantity demanded of properties will increase as it is more affordable for consumers. However, as landlords won't be receiving as much income from renting, quantity supplied will decrease leading to excess demand i.e. a shortage of properties to rent. Increased homelessness & need for government to provide accommodation.</p> <p>Decrease in number of landlords. As landlords will earn a reduced income from renting out their properties, they will be less inclined to do so meaning there will be a reduction in available properties for rent.</p> <p>Disimproved quality of accommodation. As landlords will earn a reduced income from renting out properties, they will be less inclined to invest in the upkeep of their properties in order to reduce their costs.</p> <p>Increase in black market activity. More properties may be illegally rented to tenants in the black market and not declared for tax purposes. Allocation on sellers' preferences.</p> <p>Increased utility costs. Landlords may try to circumvent the new regulations by increasing the prices they are charging for goods related to the property such as charging tenants for the use of a parking space etc.</p>	<p>2 x 4 (2+2)</p> <p>20</p>

Q2 Monopoly

	Possible responses	Max Mark
(a)	Characteristics of a monopoly market:	
(i)	<ol style="list-style-type: none">1. The firm is the sole supplier in the industry. The firm's output is equal to the industry output.2. The firm seeks to maximise profits by producing where $MC=MR$ and MC cuts MR from below.3. The firm controls either price or quantity but cannot control both.4. High barriers to entry exist and these prevent the entry of new firms into the industry which could threaten the position of the monopolist.5. A unique good is sold so the consumers cannot find any substitute for the good e.g. services provided by Irish Rail have no close substitute so it is in a monopoly position.	3 @ 5 (2 + 3)
(ii)	<p>There must be some degree of monopoly/market power (degree of price setting power held by a supplier on the basis of its market share) to allow producers the ability to price set and not to price take.</p> <p>If there were rival firms selling substitute goods in the industry, they could undercut the higher price eliminating all demand and supernormal profits in the more expensive market.</p>	5 graded
		20

		Possible responses									Max Mark																					
(b)	(i)										11 (11@1)																					
	(ii)	<table border="1"> <thead> <tr> <th>Price axis</th> <th>Quantity axis</th> <th>D=AR</th> <th>MR</th> <th>MC</th> <th>AC</th> <th>Equilibrium Point E</th> <th>P₁</th> <th>Q₁</th> <th>C₁</th> <th>SNPs</th> </tr> </thead> <tbody> <tr> <td colspan="11"> <p>Explanation</p> <ol style="list-style-type: none"> Equilibrium <ul style="list-style-type: none"> Occurs at point E where <ul style="list-style-type: none"> MC = MR [and MC is rising] Price/ Output <ul style="list-style-type: none"> The firm produces Q₁ and sells it at P₁ Cost <ul style="list-style-type: none"> The cost is shown at C₁ (point Y) SNP <ul style="list-style-type: none"> The firm is earning SNP (P₁,C₁,Y,X) because AR > AC or they can continue to exist due to barriers to entry. Inefficiency <ul style="list-style-type: none"> The firm is not producing at the lowest point on the AC curve. It is thus inefficient/wasteful of resources. </td> </tr> </tbody> </table> <p>In the monopoly market structure firms face a downward-sloping demand curve. Firms can determine / set the price or quantity but not both. The demand curve obeys the law of demand, in order to increase the quantity demanded firms must decrease the price.</p> <p>In the perfectly competitive market structure firms face a horizontal or perfectly elastic demand curve. The price is determined by market demand and supply, the firm must accept this price i.e. it is a price-taker. Since firms are selling homogenous goods in insignificant quantities they are unable to influence the industry price.</p>									Price axis	Quantity axis	D=AR	MR	MC	AC	Equilibrium Point E	P ₁	Q ₁	C ₁	SNPs	<p>Explanation</p> <ol style="list-style-type: none"> Equilibrium <ul style="list-style-type: none"> Occurs at point E where <ul style="list-style-type: none"> MC = MR [and MC is rising] Price/ Output <ul style="list-style-type: none"> The firm produces Q₁ and sells it at P₁ Cost <ul style="list-style-type: none"> The cost is shown at C₁ (point Y) SNP <ul style="list-style-type: none"> The firm is earning SNP (P₁,C₁,Y,X) because AR > AC or they can continue to exist due to barriers to entry. Inefficiency <ul style="list-style-type: none"> The firm is not producing at the lowest point on the AC curve. It is thus inefficient/wasteful of resources. 										
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	Possible responses	Max Mark
(c) (i)	<p>Economies of scale (cost advantages) - large firms may benefit from decreases in their average total costs as they increase their scale of production/size. These cost reductions would not occur if they were of a smaller size having to compete against other firms. e.g. Amazon using large warehouses with only an online store reduces its costs of production per unit.</p> <p>SNP used for R&D (Dynamic efficiency) – large firms can earn large amounts of supernormal profits which can then be reinvested into the firm in the form of research and development which makes the firm more efficient over time. Investment in R&D may lead to better products being produced at possibly lower prices. The firms need a dominant position in order to bear the risk associated with product innovation. e.g. Samsung and Apple invest large amounts into constantly updating and improving their products to ensure continued market dominance.</p> <p>Less waste of scarce resources from unnecessary duplication – as large firms dominate an industry there are less resources wasted than if there were more firms attempting to produce the same product in the same industry. e.g. few companies can match Amazon and so resources are not wasted.</p> <p>Secure & attractive employment - large firms don't face competition from significant opposition as there are large barriers to entry therefore consumers only have one firm which they can purchase from. This means that employees who work for the firm may have reliable tenure; with good pay and conditions e.g. Google is by far the most dominant search engine and as long as this remains the case its employees may not fear redundancies.</p> <p>Guaranteed supply – as they face very little competition and can continue to produce unopposed for an indefinite period ensuring that consumers can be guaranteed to receive the product. e.g. Amazon and eBay dominate the online marketplace with a very large customer-base which ensures that their service is guaranteed.</p> <p>Contribution to state finances – these firms provide a significant amount of tax in the form of CPT. It's employees pay over one fifth of all income tax paid in the state.</p> <p style="text-align: center;">Example required in each advantage</p>	<p>1 @ 9 2 @ 4</p>
(ii)	<p>Reduced prices – anti-competitive regulation will attempt to target monopolist's tendency to overcharge consumers. Regulators can impose price caps to force firms to charge lower prices.</p> <p>Increased quantity/choice – monopolies tend to produce smaller amounts than the allocatively/productively efficient level in the economy. Regulators could put pressure on firms to produce larger quantities.</p> <p>Employment levels may be affected by the entry of new firms / restructuring of existing firm – an existing firm may have reduced sales and profits and some employees may lose their jobs.</p> <p>Poorer service – the changed nature of the industry may mean less choice / poorer service and higher 'unseen' charges.</p>	<p>2 x 4</p> <p>25</p>

Q3 Elasticity

	Possible responses	Max Mark
(a)	Price elasticity of demand	
(i)	Refers to the responsiveness of quantity demanded to a change in the price of the good itself / refers to the proportionate change in the quantity demanded of a good in response to the proportionate change in the price of the good itself.	5
(ii)	<p>Durability – the greater the durability of the product the greater its price elasticity of demand will be. If the price of a durable product increases there will be a more than proportionate decrease in quantity demanded as consumers can postpone the replacement, continue to use their current product and wait for price to fall. e.g. Washing machines have a long lifespan and so are responsive to changes in price/more elastic.</p> <p>Availability of close substitutes – the more substitutes there are available for the product the more elastic its demand will be. The closer the substitute the greater the elasticity will be. If there is an increase in price there will be a more than proportionate decrease in quantity demanded as consumers will switch to a similar alternative good that has not increased in price. e.g. butter to margarine.</p> <p>Cheaper of two complements – if the good is the cheaper of two complementary goods it will usually have an inelastic demand. This is because if the consumer has already bought the more expensive good they are less concerned if the price of the less expensive good increases. e.g. golf balls will be less responsive to price changes than golf clubs.</p> <p>Time allowed for adjustment to price changes– the more time the consumer has to adapt their consumption patterns to changes in the price of the good/service the more elastic their demand for the product will be i.e. PED becomes more elastic over time. The increased price of electricity may have limited effect on demand in the short term but as time goes on consumers may substitute other energy forms e.g. gas central heating.</p> <p>Luxury or necessity – if the good is a necessity its PED will be inelastic as consumers will not be responsive to changes in prices. If the good is a luxury good its PED will be elastic as consumers may be very responsive to changes in prices. e.g. consumers will be more responsive to changes in the price of doughnuts than changes in the price of bread.</p> <p>Brand loyalty – The more loyal consumers are to a certain brand of product the more inelastic their demand will be to changes in the price of that good. e.g. some consumers are very loyal to the Apple brand and thus non-responsive to changes in prices.</p> <p>Percentage of total income spent on the good – the larger the percentage of income the consumer spends on the good/service the more elastic their demand will be to changes in the price of that good. e.g. The price of a car takes up a larger percentage of a consumer’s income than the price of a pencil thus they will be more responsive to changes in the price of the car than the pencil.</p> <p>Expectation of future price changes – if the consumer expects the price to fall further in the future, the more inelastic their demand will be to current decreases in price. e.g. if house prices are falling but the consumer feels that prices haven’t yet bottomed out, they may wait for further price decreases before purchasing.</p>	<p>2 @ 6 2 @ 4</p> <p>Example Required in each point</p>
		25

	Possible responses	Max Mark
(b) (i)	<p>- 0.1 relates to business peoples' demand for airline tickets as they have price inelastic demand. They have very few alternatives to the flights, therefore when the price of the good increases their quantity demanded falls by a less than proportionate amount.</p> <p>- 2.4 relates to holiday-makers' demand for airline tickets as they have price elastic demand. They view this as luxury expenditure and thus may not purchase it if its price increases, they may look for alternative destinations, alternative modes of transport or simply do without. When the price of the good increases their quantity demanded falls by a more than proportionate amount.</p>	<p>5 (2+3)</p> <p>5 (2+3)</p>
(ii)	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Diagram 1: Inelastic Demand</p> </div> <div style="text-align: center;"> <p>Diagram 2: Elastic Demand</p> </div> </div> <p>Diagram 1. Shows a relatively price inelastic demand curve where $PED < 1$. This means that the percentage change in quantity demanded will be less than the percentage change in the price of the good/service.</p> <p>Diagram 2. Shows a relatively price elastic demand curve where $PED > 1$. This means that the percentage change in quantity demanded will be greater than the percentage change in the price of the good/service.</p>	<p>Diagrams: 2 @ 6 (2+2+2)</p> <p>2</p> <p>2</p>

(iii)	<p>Consumers with a price inelastic demand If the price were increased for business passengers the decrease in quantity demanded would be less than proportionate to the price increase and thus the firm would gain revenue.</p>	2
	<p>Consumers with a price elastic demand If the price were increased for holiday-makers the decrease in quantity demanded would be more than proportionate to the price increase and thus the firm would lose revenue.</p>	2 30

	Possible responses	Max Mark
(c)	<p>(i) $\frac{\Delta Q_{d_x}}{\Delta P_T} \times \frac{P_{T1} + P_{T2}}{Q_{d_{x1}} + Q_{d_{x2}}}$</p> <p>$- \frac{15,000}{-150} \times \frac{500 + 350 (850)}{10,000 + 25,000 (35,000)} = + 2.42857 = + 2.43$</p> <p>These goods are substitute goods. They have a + / positive CED. As the price of tablet devices decreases (from €500 to €350) the quantity demanded of Good X decreases (more than proportionally, from 25,000 to 10,000). This means that the goods are close substitutes i.e. goods which are very similar alternatives to one another.</p> <p>As the price of one of these goods decreases the demand for the other decreases as consumers swap from one to the other.</p> <p>(ii) No. The cross-price elasticity between these goods will give a negative sign as the goods are in joint demand. The goods are complements. Thus, if the price of one decreases the quantity demanded of the other good would increase.</p>	<p>12</p> <p>4 graded</p> <p>4 graded</p> <p>20</p>

Q4 Factors of Production and Cost of Production

	Possible responses	Max Mark
(a) (i)	<p>Average cost Is the cost per unit of output produced. It is calculated by dividing total cost by quantity.</p> <p>Marginal cost Is the additional cost of producing an additional unit of output.</p> <p>Employment rate Refers to all people in the labour force who are currently employed. The proportion of the country's working age population that is employed.</p> <p>Participation rate Refers to all those people in the labour force, aged between 16 – 66, who are willing and able to work at existing wage rates i.e. they are either employed or seeking work.</p> <p>Marginal physical product Refers to the additional output produced from the employment of an additional unit of a factor of production.</p> <p>Marginal revenue product Refers to the additional revenue earned by a firm owing to the employment of an additional unit of a factor of production.</p>	<p>2 @ 6 2 @ 4</p>
(ii)	<p>Two factors that can influence MRP of labour</p> <p>The productivity / commitment of the factor (and the entrepreneur) - The more productive each additional factor employed is then the more MRP that factor will earn.</p> <p>The selling price of the output - If the selling price obtained on the market is rising or constant (and not falling) then the higher will be that factor's MRP.</p> <p>The Law of Demand - On the market, the law of demand dictates that in order for more to be bought then price must be reduced – this affects the MRP of labour obtained by the firm.</p> <p>Quality / Specialised nature of the factors / Unique talent - If the quality of the factor used improves then that factor may become more efficient and so additional output will be produced, resulting in increased MRP.</p> <p>Training / Education provided for the factors - If labour is more highly trained / has attained a good standard of education then it may become more skilled, resulting in increased efficiency and more output.</p> <p>Law of Diminishing Marginal Returns – as each additional labour unit is employed a point is reached where the extra output produced will decline and so MRP of labour will decline.</p>	<p>2 @ 5 (2 + 3)</p>

30

	Possible responses	Max Mark
(b)		
(i)	$AVC + AFC = ATC$ $300 + 100 = 400$	7
(ii)	$AVC + AFC = ATC \times Q = TC$ $150 + 300 = 450 \times 2 = 900$	6
(iii)	$AVC + AFC = ATC \times Q = TC$ $MC = TC_5 - TC_4$ $TC_5 = 240 + 120 = 360 \times 5 = 1800$ $TC_4 = 187.5 + 150 = 337.50 \times 4 = 1350$ $1800 - 1350 = 450$	3
(iv)	<p>Firm produces where $MC = MR$. $MR = 100$ therefore firm produces where $MC = 100$. FC of zero units is 600. $VC = 0$. $TC = 600$</p> <p>$TC_1 : 200 + 600 = 800 \times 1 = 800$ $TC_2 : 150 + 300 = 450 \times 2 = 900$</p> <p>$MC_2 : 900 - 800 = 100$.</p> <p>The firm should produce 2 units (as $MC = MR = 100$)</p>	4
		20

	Possible responses	Max Mark
<p>(c) (i)</p>	<p>Upward pressure on wages / demand for courses in ITs & Universities Where shortages are occurring employers may be forced to increase wage rates in order to keep the existing workforce and attract new workers. Increased cost of production for firms may make it difficult to meet production targets as they are able to afford less workers. It may also lead to cost push inflation / demand for relevant courses at 3rd level.</p> <p>Reduced availability of services If there is a shortage of workers with specialised skills then they may be unable to provide certain services.</p> <p>Deterioration in quality of services. If there is a shortage of specialised workers, then services may be provided by less qualified workers and lower paid jobs may not be completed at all.</p> <p>Increased immigration When workers from foreign countries become aware of the labour shortage and rising wages in Ireland, they may come here seeking employment (plus effects of immigration).</p> <p>Less attractive location for FDI One of Ireland's key characteristics which entices investment from abroad is our readily available, well-educated, English-speaking workforce. If there are shortages of skilled labour in certain sectors it may deter investment from abroad.</p> <p>Negative impact on productivity of Irish firms. Indigenous firms have experienced decreases in labour productivity in recent years with the foreign firms far outstripping the domestic firms in terms of productivity. As skills shortages arise it could further exacerbate this problem.</p>	<p>3 @ 5 (2 + 3)</p>
<p>(ii)</p>	<p>Open up the Irish labour market / More efficient visa system / Encourage emigrants to return home / Change immigration policies / encourage retired workers to return Change in regulations in relation to work permits, visas etc. may encourage workers to locate in Ireland, particularly in those areas where shortages exist.</p> <p>Provide more attractive working conditions / wages If working conditions and pay are improved, it will encourage graduates in certain occupations to work in Ireland and not go abroad. It may also entice emigrants to return to Ireland from abroad bringing their skills and experience into the Irish economy. Improve access to affordable accommodation.</p> <p>Increased student grants for education and training in areas experiencing skill shortages With more graduates qualifying in these areas it will help to plug the gap in the labour market.</p> <p>Government Initiatives: Increased minimum wage / Decrease income tax rates / increase tax credits. By altering the taxation structure it may create more incentives for skilled people to enter the world of work. Increasing minimum wage rates may attract some workers to key areas.</p> <p>Government introduction of more apprenticeships schemes to broaden the skills base If the number of apprenticeship schemes available in Ireland increased it would give more opportunities for people to gain skills which are in demand in the economy.</p>	<p>2 @ 5 (2 + 3)</p> <p>25</p>

Q5 Money and Banking, and Government Objectives

	Possible responses	Max Mark														
<p>(a) (i)</p>	<p>Two characteristics of money:</p> <p>Durable – money needs to last a long time in circulation.</p> <p>Divisible – larger amounts can be broken down into smaller amounts to enable small purchases to be made.</p> <p>Recognisable – genuine currency should be instantly recognisable with many identifying characteristics.</p> <p>Acceptable – money is legal tender accepted for purchasing all goods and services.</p> <p>Portable – money can be easily transported and transferred from one person to another.</p> <p>Scarce – to ensure money maintains its value it must be relatively scarce / limited in supply.</p> <p>Homogenous – all denominations of money must be identical to each other.</p>	<p>2 @ 5 (2 + 3)</p>														
<p>(ii)</p>	<table border="1"> <thead> <tr> <th data-bbox="180 1014 764 1133">Advantages for the banking industry</th> <th data-bbox="764 1014 1348 1133">Advantages for consumers</th> </tr> </thead> <tbody> <tr> <td data-bbox="180 1133 764 1305"> <p>Reduced need for labour Reduced costs for banks as they require less staff as many banking operations can be completed using technology.</p> </td> <td data-bbox="764 1133 1348 1305"> <p>Convenience It is less time consuming for consumers to use electronic money e.g. contactless payments or online banking.</p> </td> </tr> <tr> <td data-bbox="180 1305 764 1514"> <p>Greater efficiencies Bank processes become more streamlined as there is less management of cash required and more automated processes can take place online.</p> </td> <td data-bbox="764 1305 1348 1514"> <p>Less expensive It is less expensive for consumers to bank online instead of using cheques. No travel cost to/from the banks.</p> </td> </tr> <tr> <td data-bbox="180 1514 764 1724"> <p>More profitable Due to reduced costs of staff and the streamlining of service provision the banking industry may become more profitable.</p> </td> <td data-bbox="764 1514 1348 1724"> <p>Less crime Stolen cards can be cancelled but cash cannot.</p> </td> </tr> <tr> <td data-bbox="180 1724 764 1843"></td> <td data-bbox="764 1724 1348 1843"> <p>Electronic paper trail Makes banking more transparent for the consumer.</p> </td> </tr> <tr> <td data-bbox="180 1843 764 1962"></td> <td data-bbox="764 1843 1348 1962"> <p>International transactions Online purchasing becomes easier and more cost effective for consumers.</p> </td> </tr> <tr> <td data-bbox="180 1962 764 2051"></td> <td data-bbox="764 1962 1348 2051"></td> </tr> </tbody> </table>	Advantages for the banking industry	Advantages for consumers	<p>Reduced need for labour Reduced costs for banks as they require less staff as many banking operations can be completed using technology.</p>	<p>Convenience It is less time consuming for consumers to use electronic money e.g. contactless payments or online banking.</p>	<p>Greater efficiencies Bank processes become more streamlined as there is less management of cash required and more automated processes can take place online.</p>	<p>Less expensive It is less expensive for consumers to bank online instead of using cheques. No travel cost to/from the banks.</p>	<p>More profitable Due to reduced costs of staff and the streamlining of service provision the banking industry may become more profitable.</p>	<p>Less crime Stolen cards can be cancelled but cash cannot.</p>		<p>Electronic paper trail Makes banking more transparent for the consumer.</p>		<p>International transactions Online purchasing becomes easier and more cost effective for consumers.</p>			<p>4 @ 5 (2 + 3)</p>
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Disadvantages for banking industry	Disadvantages for consumers
<p>Security risks/hacking Banks need to be more and more vigilant in relation to online security as the risks of hacking pose a significant risk for banks and consumers online.</p>	<p>Difficulty of use for people who are not technologically proficient especially elderly people.</p>
<p>Data protection issues Have become a key area for all online services due to GDPR.</p>	<p>Security risks/hacking Consumers need to be vigilant in relation to online security as the risks of hacking pose a significant risk for consumers.</p>
<p>Technological issues Banks become more vulnerable due to technology failures and connectivity issues. If the technology fails transactions can't take place.</p>	<p>Technological issues Cash based businesses are not vulnerable to technological failures in the same way that cashless businesses are. If technology fails, the firm will lose out on custom until the fault is repaired.</p>
<p>Human Resource / IR issues As workers are being replaced by technology.</p>	<p>Possible overspending / impulse buying The convenience of cashless payments means that consumers may be more inclined to overspend /engage in impulse buying/not keep track of spending.</p>
<p>Costs of initial set-up & maintenance Banks must fund the installation / updating and maintenance of the new technologies.</p>	

	Possible responses	Max Mark
(b)	<p>Reduced investment. Increases in the base interest rate will lead to increases in high street bank lending rates increasing the cost of borrowing making investors less inclined to purchase capital equipment and invest in the economy.</p> <p>Increased cost of borrowing/Increased cost of mortgage interest payments. Increases in the base interest rate will lead to increases in high street bank lending rates increasing the cost of borrowing making private individuals less inclined to borrow for personal use. Increased cost of servicing the national debt.</p> <p>Increased incentive to save As the reward for saving has increased people will forgo consumption in order to receive a higher return. Reduction in consumer spending reducing aggregate demand. Banks now have greater funds available to lend out to borrowers.</p> <p>Slowing economic growth/reduced investment With consumers spending less and saving more and investors less inclined to invest into the economy there will be a dampening effect on economic growth.</p> <p>Rising unemployment. With consumers spending less and saving more and investors less inclined to invest into the economy there will be less demand for goods and services and thus less demand for the employees who produce these goods and services.</p> <p>Risk of personal bankruptcies due to default on loans If interest rates were to increase it may force some borrowers to default on their loans as they may be unable to repay their loans.</p> <p>Note: Must link answers to current economic climate – current historic low interest rates, almost full employment, tentative economic growth, low inflation, Brexit fears/ high debt nationally and individually / over-heating the economy / growth of protectionism.</p>	<p>4 @ 4 (2 + 2)</p> <p>+ 4</p> <p>20</p>

6 Inflation and International Competitiveness

	Possible responses	Max Mark
(a) (i)	<ul style="list-style-type: none"> • Choose a representative base year • Decide what goods to include in the composite price index • Gather data: find the price of each good for each time period being observed • Construct a simple index for each commodity • Find out how much a typical consumer spends on the good as a proportion of total income i.e. attach a 'weight' to each good. • Multiply the price change index (the simple price index) for each good by its relevant weight. • Add up all the price changes to get the overall change in prices. 	8 graded
(ii)	<p>The nominal wage is the money wage (the wage rate before it is adjusted for inflation²)</p> <p>The real wage is the money wage adjusted for prices/inflation. It is the purchasing power of money.</p>	2 @ 4
(iii)	<p>Real wages = Nominal rate - Inflation rate</p> <p>$-0.2 - 0.3 = -0.5$</p> <p>$1.2 - (-0.3) = 1.5$</p> <p>$1.1 - 0.0 = 1.1$</p>	9 graded
		25

	Possible responses	Max Mark
(b) (i)	<p>Demand pull inflation occurs when the total/aggregate demand for goods and services is greater than the total/aggregate supply of goods and services. There is excess demand which pulls up the price level. / When the economy cannot produce enough goods and services to meet demand causing prices to rise.</p> <p>Cost push inflation occurs when the source of upward pressure on prices is the rising costs of the factors of production i.e. costs rises without a corresponding improvement in productivity. This increase in costs is then passed onto consumers in the form of higher prices. It may also occur in the form of imported inflation whereby imported raw materials from abroad have increased in price leading to an increase in the prices of finished products in the home market.</p>	5 (2 + 3)
		5 (2 + 3)

<p>(ii)</p>	<p>Loss of purchasing power/fall in living standards. As it now requires an increased amount of money to purchase the same amount of goods/services it means that the purchasing power of the consumer has fallen meaning they can purchase fewer goods than they were previously able to resulting in a lower standard of living.</p> <p>Loss of international competitiveness. If a country is experiencing higher inflation than its trading partners, it will mean that it is losing international competitiveness. This will mean that it is more difficult to sell exports and domestic consumers will be more likely to purchase imports negatively affecting the balance of payments.</p> <p>Those on fixed incomes lose out. People who earn fixed incomes (eg, welfare recipients) will suffer the most during times of inflation as they suffer the largest loss of purchasing power.</p> <p>Saving is discouraged unless the interest rates rises. If the rate of inflation is greater than the rate of interest on savings consumers will be less inclined to save as their savings are losing value in real terms. It is however an incentive for people to borrow as the repayments on loans have decreased in real terms.</p> <p>Investment is skewed towards property to hedge against inflation and away from other areas that might be more productive in terms of the job creation in the economy.</p> <p>If tax rates are not indexed the problem of ‘fiscal drag’ arises. As wage inflation occurs individuals may move into the next tax bracket meaning a higher proportion of income is paid in tax and thus their income is actually reduced in real terms as prices continue to rise.</p> <p>Demand for wage increases – employers may be faced with this as workers seek compensation for their reduced standard of living. This will lead to additional costs.</p>	<p>3 @ 4 (2 + 2)</p>
<p>(iii)</p>	<p>Current deflation may create the expectation amongst consumers that prices will continue to fall further in the future.</p> <p>Their best response is thus to postpone consumption until price falls.</p> <p>As aggregate demand for goods and services falls so does the demand for the labour which produces it (labour is a derived demand)</p> <p>As the demand for labour falls unemployment arises dampening demand in the economy further, thus reducing economic growth in the economy (putting a downward pressure on prices which further exacerbates the situation).</p>	<p>8 graded</p> <p>30</p>

	Possible responses	Max Mark
(c)	<p>Shortage of available and affordable accommodation/Increases in property prices - due to increases in property prices in areas of infrastructural development the cost of manufacture increases for firms who locate in these areas decreasing their international competitiveness / reduces the mobility of labour into areas where employees are needed to improve Ireland's productive capacity / Reduced mobility of labour into areas where employees are needed to improve Ireland's productive capacity due to housing shortages/prices.</p> <p>Infrastructure - the delay and possibly high cost in the full roll out of the National Broadband Plan across the country remains a competitiveness concern. Reliable, high-speed broadband is essential to increase the attractiveness of regional areas for investment. Traffic congestion particularly in Dublin leads to increased costs and a loss of competitiveness.</p> <p>Increases in business services costs / Increase in energy prices / Cost of utilities / Insurance costs / Inflation level -increases in costs associated with running a business in Ireland have made Ireland relatively more expensive to produce in than other European countries.</p> <p>Brexit uncertainty - affects all areas of economic activity, including potential tariff and non-tariff barriers etc. The uncertainty in relation to Brexit has led to less investment into the Irish economy which may have a contractionary effect on our productivity / competitiveness.</p> <p>Increasing wage levels to alleviate shortages / attract new talent can affect competitiveness. Ireland has a challenge in attracting and retaining mobile talent and skills. Under investment in the higher education sector is endangering competitiveness.</p> <p>Productivity of the indigenous enterprises. There is a large productivity gap between indigenous SMEs and foreign sectors which needs to be narrowed (improvement in management quality, up-skilling of the workforce). Foreign firms far outstrip domestic firms in terms of productivity. If our international competitiveness is to be maintained this gap needs to be reduced.</p> <p>Foreign direct investment. Ireland continues to be a popular hub for foreign direct investment. This investment into our economy brings with it the advantages of new knowledge, skills and technological advances which improve the productive capacity of the Irish economy and help give Ireland a competitive advantage.</p> <p>Climate action. Ireland is falling considerably short in meeting international carbon emission reduction commitments for 2020. Government measures will mean additional costs for firms affecting Ireland's competitiveness.</p>	<p>4 @ 5 (2 + 3)</p> <p>20</p>

Q7 National Income

	Possible responses	Max Mark
<p>(a) (i)</p>	<p>Indication of alterations in standard of living. Any change in national income figures will indicate the level of economic growth, or otherwise, within the country from one year to the next, and give a general indication of changes to the standard of living, if any. Used by trade unions to justify wage demands.</p> <p>Means of comparing the standard of living in different countries. We can use the national income statistics to compare the standard of living in our country with that of other countries.</p> <p>Assists the government in formulating economic policy. Governments have a greater influence on the development and growth of the economy. To effectively plan for this governments need information about the economy such as that provided by the National Income statistics.</p> <p>Evaluate economic policy to assess changes to the economy and economic changes in the various sectors, and to provide a benchmark against which progress can be monitored, it is useful to have national statistics.</p> <p>EU Budget Contributions / Benefits. The national income statistics will determine the contribution, if any, which Ireland must make to the EU budget. The figure will also be used within the EU to determine those countries which require financial aid from the EU and the amount of that aid.</p>	<p>2 @ 7 graded</p>
<p>(ii)</p>	<p>Population changes. If national income grows at a slower rate than population, then national income per head decreases and the average standard of living will fall. Hence population changes must be considered with changes in national income when assessing a country's economic performance.</p> <p>Inflation/deflation. An increase in prices will increase national income but standard of living may fall. So, changes in national income must be compared with changes in prices to determine the impact on standard of living / economic performance.</p> <p>Employment / Unemployment. If a person is unemployed rising national income will not necessarily mean that this person's average standard of living is rising. The rates of social welfare payable is of more relevance to an unemployed person than the average standard of living in the country.</p>	<p>2 @ 8 graded</p>

Levels of taxation. When considering a person's standard of living one should take into account rates of income tax and levels of indirect tax within the country. An increase in either of these may result in a fall in a person's standard of living.

Exclusion of important activities from calculation of national income. The shadow / black economy is excluded from the calculation of national income. The work of housewives & voluntary activities is also excluded. Such activities are important to the welfare of its citizens. All work completed in the shadow / black economy and all work of a voluntary nature are not included in the national income statistics even though they may be worth a sizeable amount.

Hidden social costs attached to increases in national income / measures flow of wealth not welfare. If a firm increases output national income increases. However, a hidden cost may be increased pollution etc. Rising GNP may be accompanied by changing working/living conditions which may cause a loss of welfare e.g. more traffic congestion and so a person's standard of living may fall.

Distribution of national income. If increases in national income make their way into the pockets of a small minority, there may be no improvement in the standard of living of the whole community.

Nature of the goods produced. A country which spends a small amount on military equipment and a large amount on health, education etc. will have a better standard of living than one where the reverse is the case.

Government services at cost price. Government services are included at cost while private services are included at selling price. A country where the government provides many services will record a lower GDP / national income.

	Possible responses	Max Mark
(b)		
(i)	Marginal propensity to consume refers to the proportion of each extra unit of Income which is spent on goods and services.	5
(ii)	MPS = 1 – MPC 1 – 0.6 = 0.4	5
(iii)	$\frac{1}{(1-MPC) + MPM + MPT}$ $\frac{1}{MPS + MPM + MPT}$ $\frac{1}{(1-0.6) + 0.2 + 0.2} = 1.25$ $\frac{1}{0.4 + 0.2 + 0.2} = 1.25$ <p>Any injection into the circular flow of income will have a 1.25 times larger effect on national income / than the initial injection.</p>	Calculation: 5 Explanation: 4
(iv)	150bn – 100bn = 50bn ÷ 1.25 = €40bn	6
		25

	Possible responses	Max Mark
(c)		
(i)	The shadow economy refers to all economic activity which goes unrecorded by national income accounts.	5
(ii)	<ol style="list-style-type: none"> Loss of tax revenue to the government / - pressure on government services - Tax revenues essential to the provision of state services are lost to the exchequer. These could have been used by the government for varied uses. With the loss of revenue to the state the government may have to cut spending, find additional sources of tax revenue and/or reduce the volume of services which it provides and /or increase borrowing. Decline in legitimate business activity / threat to jobs - Those businesses which are legitimate will suffer a decline in sales, leading to possible job losses and a decline in economic activity. Increased government expenditure on enforcement - To curb this activity the government may have to increase spending on enforcement which will lead to further pressure on the state's finances / necessity to raise taxes. Increase crime levels. An increase in shadow / black economic activities results in increased crime and may instill fear in citizens and further reduce economic activities. Standards of products/services - Because of lack of regulation products may be unsafe / harmful to consumers. 	3 @ 5 (2 + 3)
		20

Q8 Government Objectives and Fiscal Policy

	Possible responses	Max Mark
(a)		
(i)	<p>A progressive tax takes a higher proportion away from high income earners than from low-income earners. A tax is progressive when the proportion of income paid in tax rises as income rises. Income tax (PAYE) is an example of progressive tax as worker’s wage increases, they will pay a higher tax rate.</p> <p>A regressive tax takes a higher proportion away from low income earners than high-income earners. A regressive tax means that the proportion of income tax paid falls as income increases. V.A.T. is an example of a regressive tax as rich and poor people pay the same amount of tax on the goods they buy.</p>	<p>5 (4 + 1)</p> <p>5 (4 + 1)</p>
(ii)	<p>Yes, because it wasn’t needed for revenue generation as the government is already running a surplus budget.</p> <p>It tends to be regressive and would hit low-income earners much harder than high-income earners, it could also be seen as having a negative impact on the wealth generation of the working class.</p> <p>The poorest households spend a higher percentage of their income on fuels for heating and transportation while higher income individuals spend a proportionately greater amount on services which usually have lower than average carbon emissions per unit of output. Emissions increase more slowly as income increases.</p> <p>The carbon tax would add to business costs thereby conflicting with the government’s priorities of creating jobs, reducing income inequality and attracting investment.</p> <p>The carbon tax would have a detrimental effect on export competitiveness as cost increases may lead to higher export prices and possibly reduced demand for exports.</p> <p>Firms should be allowed time for the transition as carbon tax is in effect a tax on production processes. Individuals and state authorities must also have time to adjust.</p> <p>Carbon taxes may be considered as anti-rural due to the lack of public transport in rural areas. More effort should be made to improve the provision of sustainable public transport.</p> <p style="text-align: center;">or</p> <p>No, because the fuels which it is placed on are demerit goods which negatively impact the environment. The taxes would focus on polluter pays policy.</p> <p>The government is failing to meet its environmental protection EU targets. Increasing this tax would bring Ireland closer to achieving these. Would avoid penalty payments for not meeting targets.</p> <p>It would also generate additional revenue for the government. (Including all points relating to what this additional revenue could be spent on i.e. improving state services.)</p> <p>It would encourage businesses and households to transition to sustainable sources of energy and Ireland would preserve non-renewable resources. These taxes would entice households and businesses to switch to more sustainable resources.</p>	<p>3 @ 5 (2 + 3)</p> <p>25</p>

	Possible responses	Max Mark
(b) (i)	<p>Running the risk of future budget deficits. If the government establishes a pattern of overspending in certain departments an expectation may be established in these departments that additional funding will be available indefinitely leading to inaccurate planning and further mismanagement.</p> <p>Running the risk of accumulating additional debt in the future. Financial mismanagement is not sustainable for government departments and is likely to lead to budget deficits and increased national debt which creates opportunity costs for the future spending potential of the economy. Need for higher future taxation.</p> <p>Uncertainty and lack of credibility in government planning. If the government is seen to be unable to control its own budgets or how its own departments operate it may be viewed with cynicism by the general public and its policies and planning may lose credibility. Citizens may question over spending on some projects and the prices being charged by contract suppliers.</p> <p>Deterioration in quality of service provision. Other departments may lose out because there will be less funds available for them to use if some departments are being financially mismanaged leading to dis-improvements in some services.</p> <p>Damage to Ireland’s international reputation. Ireland may be seen as a country that cannot manage its public finances and this may damage Ireland’s reputation within the EU and its international credit rating.</p>	3 @ 5 (2 + 3)
(ii)	<p>Loss of FDI / difficulty in attracting new FDI. If the corporation tax rate increases MNCs may consider other European countries which have a relatively cheaper cost structure. American MNCs may decide to relocate to America.</p> <p>Loss of employment. If there is a withdrawal of FDI from Ireland it will have a negative impact on the demand for labour leading to increased unemployment. It will also have a higher social welfare bill due to the increases in unemployment.</p> <p>Effects on government revenue. Due to the withdrawal of firms from Ireland the government will receive less tax revenue in the form of corporation tax, income tax and V.A.T. Firms who do remain in Ireland will help to counterbalance some of this loss of revenue through their increased corporation tax rate. The increase could lead to a temporary increase in the amount of tax collected. The government will have to spend additional revenue on promoting Ireland as a hub for FDI.</p> <p>Equitable taxation system. If additional revenue accrues to the government then lower personal taxation may be possible and this will favour individuals and households. Internationally it may help Ireland’s reputation that its taxation system is fair.</p>	3 @ 5 (2 + 3)
		30

	Possible responses	Max Mark
(c) (i)	<p>A just social policy refers to the government’s provision of services and management of the redistribution of income required in an economy to ensure that all citizens can achieve a certain standard of living.</p>	6 graded
(ii)	<p>Increased minimum wage. While the minimum wage has been increased again this year it still lags behind the recommended “living wage”.</p> <p>Tackle issues such as cost of housing. If the government provides more social housing it would allow workers the opportunity to spend less on exorbitant rents and thereby improve their standard of living.</p> <p>Alterations to the tax structure. The government could rearrange tax bands to allow employees to have more take-home pay. They could achieve the same effect through alterations to the tax credits. Alternatively, they could make changes to the rate of VAT on essential items.</p> <p>Reduce public transport costs. The government could look to decrease the price of public transport or subsidise travel for those workers below a certain income threshold. This would reduce the costs associated with transport to/from work and allow employees to retain more of their earnings.</p> <p>Means testing. The weekly income limit for those who receive a medical card could be increased making more people eligible for free healthcare. Managing universal transfer payments.</p> <p>Increase social welfare payments. If unemployment benefit is increased, it will allow part-time employees to enjoy a better standard of living. If child benefit payments are increased, it will allow the working poor to retain more of their income. Subsidies could be provided for child care in order to make employment worthwhile for these workers.</p> <p>Legislation on work contracts. The legislation on zero hour contracts could be enforced so that workers are protected. Working without a contract could be prohibited. Workers who are deemed by employers to be ‘self-employed’ could be protected by legislation.</p> <p>Firms could subsidise workers to help increase their standard of living through the provision of benefits / services i.e. the provision of crèches / health insurance.</p>	2 @ 7 (4+3)
		20

