CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2014 series

0455 ECONOMICS

0455/21 Paper 2 (Structured Questions), maximum raw mark 90

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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1 (a) Define 'economic growth'. [3]

3 marks for increase in (real) GDP/country's output/national income/productive potential over time.

Or 2 marks for increase in (real) GDP/country's output/productive potential/national income.

Or 1 mark for reference to GDP/output/national income.

(b) Using information from the extract, explain why Mongolia's Human Development Index value is likely to increase in the future. [2]

1 mark for recognising the likelihood that incomes/GDP will rise/economic growth will occur.

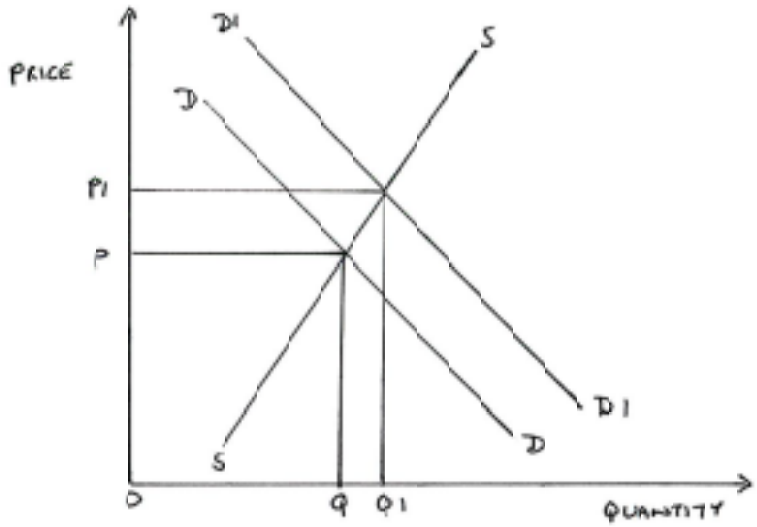
1 mark for recognising the likelihood that years in school will increase/education will improve.

1 mark for explaining the link to the composition of the HDI.

Note: a maximum of 2 marks.

(c) Using information from the extract, draw a demand and supply diagram to show what is likely to have happened to the price of copper in 2011. [4]

Figure 1(c)



1 mark for axes correctly labelled – price and quantity or P and Q.

1 mark for original demand and supply curves correctly labelled.

1 mark for demand curve shifted to the right.

1 mark for correct equilibriums identified – either by lines drawn to both axes or equilibrium points clearly identified, e.g. E1 and E2.

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(d) Explain why countries with high inflation rates tend to have higher interest rates than those with lower inflation rates. [3]

- The Central Banks of countries set the interest rate/use monetary policy to control inflation (1).
- Interest rates are set high/contractionary monetary policies may be introduced (1) to reduce spending/borrowing/encourage savings (1).
- Intention is to reduce total (aggregate) demand (1).
- Lower (aggregate) demand may reduce demand-pull inflation (1).

Note: a maximum of 3 marks.

(e) Analyse whether the information in Table 1 supports the view that countries with high inflation rates have higher interest rates than those with lower inflation rates. [5]

1 mark for concluding yes it does or for recognising that all the information supports the view/the rank in terms of inflation rates is the same as the rank in terms of interest rates.

Up to 4 marks for supporting evidence/calculations, e.g.:

- Mongolia has the highest inflation rate and the highest interest rate/Mongolia has a high inflation rate and high interest rate (1), inflation calculated as 10.6% (1).
- Japan has the lowest inflation rate and the lowest interest rate/Japan has a low rate of inflation and low rate of interest (1), inflation calculated as –0.3% (1).
- India has the second highest inflation rate and the second highest interest rate/India has a high inflation rate and high interest rate (1), inflation calculated as 9% (1).
- Malaysia has the second lowest inflation rate and the second lowest rate/Malaysia has a low rate of inflation and low interest rate (1) and inflation rate is calculated as 3.3% (1).

Note: a maximum of 3 marks for correct calculations on inflationary rates given above.

Note: a maximum of 5 marks overall.

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(f) Discuss whether a rise in a country's exchange rate will reduce its international competitiveness. [6]

Up to 4 marks for why it might:

1 mark for identifying that it will increase export prices.

1 mark for explaining that higher export prices are likely to reduce demand for exports.

1 mark for identifying that it will reduce import prices.

1 mark for explaining that reduced import prices are likely to increase demand for imports.

Up to 4 marks for why it might not:

1 mark for identifying that quality of domestically produced products may rise.

1 mark for explaining that a rise in quality of domestically produced products will make them more attractive to foreign buyers.

1 mark for identifying that domestic inflation rate may fall.

Up to 2 marks for explaining that if the domestic inflation rate falls below that of rival countries (1), exports may still be relatively cheaper in the foreign market even though the exchange rate has risen (1).

Up to 2 marks for explaining that a reduction in the price of raw materials or capital goods could reduce domestic firms' costs (1) and so make them more price competitive (1).

1 mark for identifying that labour productivity might rise.

Up to 2 marks for explaining that higher labour productivity will reduce costs of production (1), which may make exports relatively cheaper in the foreign markets even though the exchange rate has risen (1).

Up to 3 marks for explaining that in the case of products where a country has a monopoly (1) with an example of a monopoly (1) demand may not be significantly affected by a rise in price (1).

Reward, but do not expect, answers that discuss that the outcome will depend upon the PED of exports and imports.

Note: a maximum of 6 marks overall.

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(g) Using information from the extract, explain why the social costs of mining are higher than the private costs of mining in Mongolia. [2]

1 mark for recognising that it is due to pollution.

1 mark for explaining that pollution is an external cost.

1 mark for recognising that social costs are external costs plus internal costs/the existence of external costs will mean that the social costs are higher than private costs.

(h) Discuss whether a rise in incomes in a country will always increase tax revenue. [5]

Up to 3 marks why it may:

Up to 2 marks: higher incomes can increase income tax revenue (1), how much tax revenue rises will be influenced by whether it is progressive or regressive (1).

Up to 2 marks: higher incomes can increase spending (1) and so increase sales tax revenue (1).

Up to 2 marks: higher incomes can increase firms' profits (1) and so increase corporation tax revenue (1).

Up to 2 marks: higher incomes can increase spending on imports (1) and so revenue from tariffs increases (1).

Up to 3 marks for why it might not:

Up to 2 marks: spending may not rise (1) if the additional income is saved (1).

Up to 2 marks: profits may not increase (1) if the extra spending goes on imports/costs rise as output increases/firms experience diseconomies of scale (1).

Up to 2 marks: tax rates/coverage may be cut (1) and so even with higher incomes tax revenue does not increase (1).

Up to 2 marks: tax avoidance and evasion may increase (1) and so for every 'dollar' earned/spent less revenue is collected (1).

Note: a maximum of 5 marks overall.

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2 (a) Describe <u>two</u> ways in which land is different from labour. [4]

Land is a natural resource (1) whilst labour is human resources/workers (1).

The payment for land is rent (1) whilst the payment for labour is wages (1).

Land is geographically immobile (1) whilst there is some limited geographical mobility in the case of labour (1).

Note: a maximum of 4 marks overall.

(b) Explain the significance of opportunity cost for a government when making its spending decisions. [4]

Up to 2 marks for defining opportunity cost– best alternative (1) forgone (1).

Up to 2 marks for recognising that if a government changes its spending on one area (1) it will have an impact on how much it can spend on another area/areas (1).

Up to 2 marks for recognising that a government has limited tax revenue (1) and limited ability to borrow (1).

Up to 2 marks for recognising that a country has limited resources (1) and so if more resources are devoted to one area, less can be devoted to other areas (1).

Note: a maximum of 4 marks overall.

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(c) Using a production possibility curve diagram, analyse the impact of an increase in resources on an economy. [5]

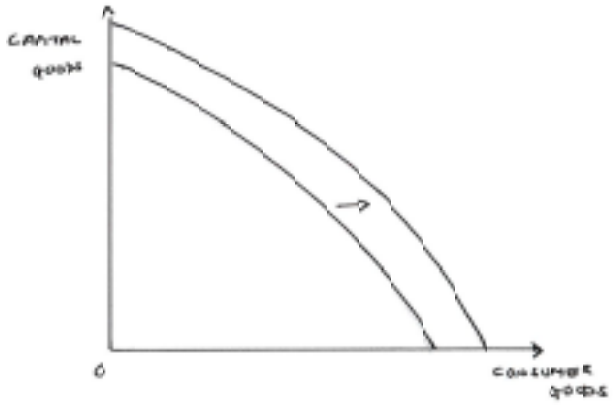
Up to 3 marks for the diagram:

1 mark for the original curve or downward sloping line which must touch the axes.

1 mark for axes correctly labelled in terms of two different products or types of products.

1 mark for showing the curve or line shifted out to the right.

Figure 2 (c)



Up to 2 marks for written analysis:

1 mark for an increase in resources moves the PPC to the right.

1 mark for more resources enables an economy to produce more of both products/increase productive potential/economic growth.

1 mark for whether output increases or not will depend on what happens to the production point.

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(d) Discuss whether the building of more roads will benefit an economy. [7]

Up to 5 marks for why it might:

Up to 3 marks for: identifying it may create employment (1) in the short term building the roads and in the long term maintaining them (1) and so raise incomes (1).

Up to 4 marks for: may lower congestion (1) and so lower transport costs (1), lower transport costs will reduce inflation (1) and so will increase international competitiveness (1).

Up to 3 marks: may make it more attractive for MNCs to set up in the economy (1) as it will lower transport costs for MNCs (1) and will increase the market in the country that the MNCs can sell to (1).

Up to 5 marks for why it might not:

Up to 2 marks: it will involve an opportunity cost (1), could have built more schools, etc. (1).

Up to 2 marks: may generate external costs (1), e.g. noise, air pollution (1).

Up to 2 marks: may lower revenue for train companies (1), as passengers and freight may switch from rail to road (1).

Up to 2 marks: may not be sufficient to keep up with demand for road use (1) as incomes rise, demand for road use may exceed the increase in capacity (1).

Up to 2 marks for: there may not be sufficient demand (1) and so resources will be wasted (1).

Maximum of 4 marks for a list or list-like response.

Note: a maximum of 7 marks overall.

3 (a) Define 'price elasticity of supply'. [2]

2 marks for either a measure of the responsiveness of supply to a change in price.

Or 1 mark for price influences supply.

Or 2 marks for the formula: percentage change in quantity supplied ÷ percentage change in price.

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(b) Explain <u>three</u> reasons why the supply of bananas may decrease. [6]

Up to 3 marks for identification.

1 mark for each of any **three** reasons identified, e.g.:
- a period of bad weather/natural disasters
- a rise in the costs of production
- a government tax
- removal of a subsidy
- expectations of a change in the market affecting planting bananas
- change in profitability of other crops
- availability of land

Note: accept any reason which would shift the supply curve for bananas to the left but do not accept a change in price or a change in demand for bananas.

Up to 3 marks for explanation.

1 mark for each of three explanations, e.g.:
- a period of bad weather/natural disaster would decrease the crop
- an increase in, for example, wages paid to farm workers which would make it more expensive to produce the product
- a government tax provides a disincentive to firms to produce more
- the removal of a subsidy will result in less being produced
- expectations of a change in the market could encourage an increase or decrease in supply
- change in profitability could either increase supply (if profits rose) or a decrease in supply (if profits fell)
- more land available would increase supply and vice versa

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(c) Analyse what effect a rise in the price of apples, which are a substitute for bananas, will have on the market for bananas. [4]

1 mark for some consumers will switch from buying apples to buying bananas.

1 mark for demand for bananas will increase (this may be shown on a diagram).

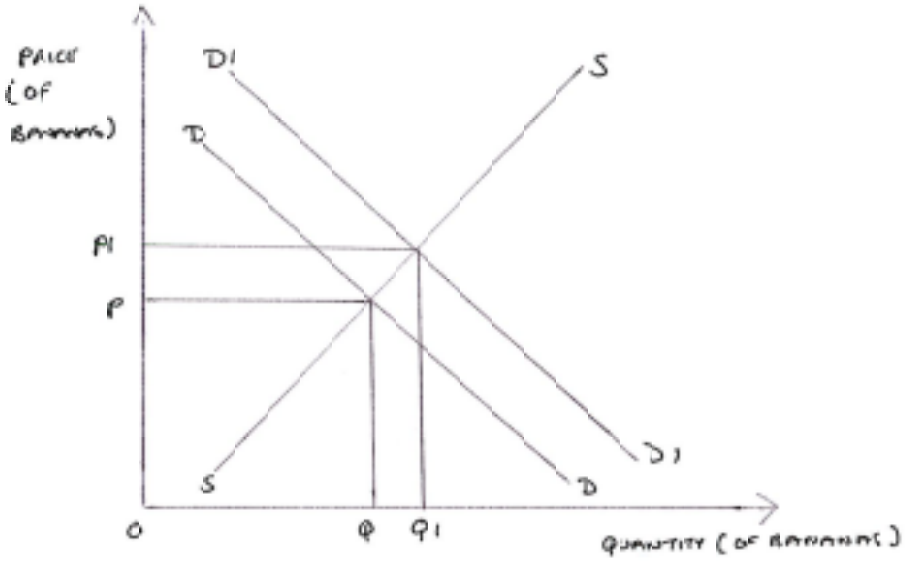
1 mark for the price of bananas will rise (this may be shown on a diagram).

1 mark for the supply of bananas will rise (this may be shown on a diagram).

Note: accept a diagrammatic approach for 3 marks.

Note: accept analysis of supply of bananas decreasing only if the answer makes clear that farmers may be growing both bananas and apples.

Figure 3(c)



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(d) Discuss whether a government should increase the tax on cigarettes. [8]

Up to 6 marks for why it should:

Up to 2 marks: the tax may increase government revenue (1), this would enable the government to spend more on (e.g.) education (1).

Up to 6 marks: put up price (1) to discourage smoking (1), smoking damages people's health (1) this is both for smokers and non-smokers/passive smoking (1) and so increases spending on health care (1) and reduces labour productivity (1) and reduces life expectancy (1).

Up to 3 marks: cigarettes may be imported (1), imports of cigarettes count in trade in goods component (1) and may contribute to a current account deficit (1).

Up to 2 marks: smoking causes external costs (1), e.g. air pollution (1).

Up to 6 marks for why it should not:

Up to 2 marks: demand may be inelastic (1), and so a rise in price will not have much impact on consumption (1).

Up to 3 marks: cigarettes may represent a higher proportion of spending for people with lower incomes (1) so tax may be regressive (1) and so fall more heavily on the poor (1).

Up to 2 marks: may contribute to inflation (1) as one of the products bought by consumers will rise in price (1).

Up to 3 marks: may encourage smuggling of cigarettes (1) if cigarettes are cheaper/less heavily taxed abroad (1) and reduce tax revenue (1).

Up to 4 marks: may harm domestic cigarette producers (1), if consumers switch from domestic to foreign cigarettes (1), may be an adverse effect on domestic employment (1), may also harm the balance of payments (1).

Maximum of 4 marks for a list or list-like response.

Note: a maximum of 8 marks overall.

4 (a) Describe <u>two</u> characteristics of a co-operative. [4]

1 mark each for two characteristics:
- jointly owned by their members (could be workers or customers)/members are shareholders
- they exist for the mutual benefit of the members
- members share profits
- each member has a vote
- have limited liability

1 mark each of two descriptions:
- co-operatives may be owned by a number of groups, e.g. workers, consumers
- profits can be distributed to consumers on the basis of how much they spend
- farming co-operatives may benefit from buying and selling in bulk
- voting is not based on size of shares held
- members can only lose their investment in the co-operative society

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(b) Explain <u>three</u> ways in which a monopoly differs from perfect competition. [6]

1 mark for identifying each of three ways, e.g.:
- the number of buyers and sellers in the market/industry
- whether there is free entry or exit into the market
- amount of information firms and consumers possess
- influence on price
- products are homogeneous in perfect competition and may not be in monopoly
- level of profit earned in the long-run

1 mark for each of three explanations:
- many buyers and sellers in perfect competition but only one seller in monopoly
- barriers to entry and exit in a monopoly but free entry and exit in perfect competition
- perfect information in perfect competition but not monopoly
- firms in perfect competition are price takers and monopolies are price makers
- in perfect competition the products made by the firms are exactly the same
- monopolies make abnormal profits whereas firms in perfect competition only make abnormal profits in the short run

(c) Analyse the advantages of vertical integration. [4]

1 mark for a definition of vertical integration/for a distinction between backwards integration and forwards integration.

Up to 2 marks: ensures supply of raw materials at a reasonable price/reduces the chain of production “cuts out the middle man” (1) as the firm can directly provide raw materials for manufacture (1).

Up to 2 marks: may restrict access of competitors to raw materials (1) which may make their prices higher or restrict their output (1).

Up to 2 marks: ensures outlets for products (1), which ensures products get to market (1).

Up to 2 marks: ensures products are well displayed and promoted (1) which can increase demand (1).

Up to 2 marks: may enable economies of scale to be gained (1), relevant example, e.g. financial economies.

Note: a maximum of 4 marks overall.

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(d) Discuss what impact a rise in output is likely to have on a farmer's profit. [6]

Up to 4 marks for why it might increase:

Up to 2 marks: if demand has increased at the same time (1), revenue may rise (1).

Up to 2 marks: if price has been lowered to sell more (1), revenue will rise if demand is elastic (1).

Up to 2 marks: higher output may reduce average costs (1) as greater advantage may be taken of economies of scale (1).

1 mark for profit will rise if revenue increases by more than costs.

Up to 4 marks for why it might not increase:

Up to 2 marks: there may be no demand for the extra output (1) and so revenue may not change (1).

Up to 2 marks: if price has been lowered and demand is inelastic (1), revenue will fall (1).

Up to 2 marks: higher output may increase average costs (1), diseconomies of scale may be experienced (1).

1 mark for profit may fall if costs rise by more than revenue.

Note: a maximum of 6 marks overall.

5 (a) Describe <u>two</u> influences on the amount people spend. [4]

1 mark for each of <u>two</u> influences identified, e.g.:
- income
- confidence
- wealth
- interest rate
- accept influences on the amount people spend on a particular product, e.g. price, age, tastes, taxes, etc.

1 mark for each of <u>two</u> explanations, e.g.:
- people with higher income have a greater ability to spend
- people are likely to spend more if they are confident about the future
- an increase in the value of people's wealth increases the ability to spend
- a rise in the rate of interest is likely to reduce spending as borrowing will be more expensive and borrowing will be cheaper.
- an explanation of how a change in the price of a good or related good, age, tastes or taxes will affect spending on a good

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(b) Explain why an item has to be generally acceptable and divisible for it to carry out the functions of money. [4]

Up to 2 marks: to act as a medium of exchange or carry out any other functions of money (1), people have to be willing to accept the item as payment (1).

Up to 2 marks: to be able to make payments of differing amounts and to be able to give change (1), it must be possible for this to be divided into different values (1).

(c) Explain <u>two</u> advantages of working for a large company. [4]

1 mark for each of <u>two</u> advantages identified:
- better staff facilities/working conditions
- greater chance of promotion
- higher wages
- better training
- job security
- opportunity to join a union
- opportunity to work abroad
- greater status

1 mark for each of <u>two</u> explanations:
- a larger company may be able to afford, e.g. staff canteen
- a larger company will have layers of staff/management
- if a company is more profitable, may be able to pay higher wages
- a bigger company can afford to offer training to its staff
- bigger companies are normally more financially stable and therefore offer more job security
- larger companies are more likely to allow unionisation
- a larger company is more likely to be a multinational
- other people are more likely to have heard of the name of a larger company

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(d) Discuss whether a firm will benefit from encouraging its workers to join a trade union. **[8]**

Up to 6 marks for possible benefits:

Up to 2 marks: may encourage more workers to apply for jobs (1), as they may expect better working conditions/job security (1).

Up to 2 marks: reduces costs of negotiating with workers (1) as negotiations can take place with one organisation rather than possibly many individual workers (1).

Up to 2 marks: provides a channel of communication (1), so information on, e.g. new working practices can be spread more quickly (1).

Up to 3 marks: may promote training (1), increasing labour productivity (1) and so lower costs of production (1).

Up to 2 marks: may reduce conflict (1) as workers' discontents can be taken to management and possibly resolved (1).

Up to 6 marks for why it may not benefit:

Up to 4 marks: may push up wages (1), as the union can use its power to bid up wage rates for its members (1). This will increase the firm's costs of production (1) and reduce the firm's competitiveness.

Up to 3 marks: may reduce flexibility (1) as a union may insist that its members only undertake the tasks in their job descriptions (1) and are not to work outside the standard hours (1).

Up to 3 marks: may take industrial action (1), e.g. a strike will disrupt production (1) and lose customers/reduce revenue/profits (1).

Maximum of 4 marks for a list or list-like response.

Note: a maximum of 8 marks overall.

6 (a) Describe how the birth rate differs from the fertility rate. **[4]**

Birth rate is the number of births per thousand of the population (1) in a year (1) whilst the fertility rate is the number of children a woman has (1) on average/over her life time (1).

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(b) Analyse how an increase in average incomes may influence a country's population size. [6]

Up to 2 marks: there will be more income/resources to support people in old age (1) so there may be less need to have a high number of children (1).

Up to 2 marks: there may be greater availability of contraception (1) and greater spending power to buy contraception.

Up to 2 marks: people may stay in education longer which may increase the cost of having children (1) and may delay the age at which people have children (1).

Up to 2 marks: higher income is linked to better health care/nutrition (1) so there may be a fall in infant mortality (1).

Up to 2 marks: due to better health care and nutrition (1), the death rate may fall (1).

Up to 2 marks: may encourage immigration (1), due to expectation of higher pay/greater job opportunities/higher living standards (1).

Up to 2 marks: higher incomes may encourage some families to have more children (1) as now they can afford it (1).

Note: a maximum of 6 marks overall.

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(c) Discuss whether a government should be concerned about a fall in the country's population size. [10]

Up to 7 marks for why it should:

Up to 3 marks: may result in a less efficient use of resources (below the optimum population) (1), as there may not be enough workers to make full use of the other factors of production (1), and so output per head will fall (1).

Up to 3 marks: will experience a fall in total (aggregate) demand (1), as there will be fewer consumers (1) and lower demand may reduce employment (1).

Up to 3 marks: labour force may be reduced (1). If the fall in population size is due to emigration, there may be fewer workers to dependents (1) and this will increase the dependency ratio (1).

Up to 3 marks: may reduce factor mobility (1), if there are fewer young workers, there may be less occupational mobility (1) and geographical mobility (1).

Up to 2 marks: a rise in the death rate may indicate serious health problems/a natural disaster (1). This would indicate a need for greater government spending on health care/better disaster response (1).

Up to 7 marks for why it should not:

Up to 3 marks: may result in a more efficient use of resources (towards the optimum population) (1), as there will now be more workers to make full use of the other factors of production (1), and so output per head will rise (1).

Up to 3 marks: may reduce overcrowding (1), giving people more living space (1) and reducing stress/ill health (1).

Up to 3 marks: labour force may still be increasing (1). If the fall in population size is due to a fall in the birth rate (1) this will mean a reduction in the dependency ratio (1).

Up to 2 marks: may reduce environmental problems (1), e.g. traffic congestion/pollution (1).

Up to 2 marks: may reduce the need for social capital (1), e.g. hospitals/schools (1).

Maximum of 5 marks for a list or list-like response.

Note: a maximum of 10 marks overall.

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7 (a) Describe <u>two</u> reasons why a country's exports may increase. [4]

1 mark for each of <u>two</u> reasons identified, e.g.:
- fall in the exchange rate
- fall in the inflation rate
- rise in productivity
- rise in income abroad
- higher quality of goods produced
- improved marketing of exports
- provision of subsidies to domestic producers
- growth in tourism
- removal of trade restrictions by foreign governments

1 mark for each of <u>two</u> descriptions, e.g.:
- a fall in the exchange rate will reduce the price of exports and so should raise demand
- a fall in inflation/rise in productivity/rise in the quality of products produced will make domestic products more internationally competitive
- rise in incomes abroad may result in more exports being demanded
- removal of trade restrictions will make it easier to sell exports abroad
- improvement in quality of goods produced will increase demand
- better marketing of exports will increase awareness of goods and services available
- subsidies will reduce costs of production/exporting and will therefore increase exports
- growth of the tourist industry in a country increases invisible exports

(b) Explain why governments aim for low unemployment. [6]

Up to 2 marks: to ensure high output (1), which should mean higher living standards (1).

Up to 2 marks: to avoid poverty (1) and so reduce poor health/nutrition/low labour productivity (1).

Up to 2 marks: to avoid a waste of resources (1) as output could potentially be higher (1).

Up to 2 marks: to keep government spending on unemployment benefit low (1) as spending on benefits incurs an opportunity cost (1).

Up to 2 marks: to ensure high tax revenue (1) as employed people earn and spend more than unemployed people in general (1).

Note: accept answers which explain the government aim for low unemployment because of the cost of unemployment.

Note: a maximum of 6 marks overall.

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(c) Discuss whether a government should increase or decrease taxes to reduce inflation. **[10]**

Up to 8 marks for why it should increase taxes:

Up to 7 marks: higher (income) taxes will reduce the amount people have to spend (1), and this is likely to lead to lower spending (1). Higher indirect taxes may also reduce spending (1). Higher taxes on firms' profits may reduce firms' investment (1) and this will lower the demand for capital goods (1). Lower overall spending will reduce total (aggregate) demand (1). With less pressure from demand, prices may rise more slowly/fall (1). This may reduce demand-pull inflation (1).

Up to 4 marks: lower inflation may make a country's products more internationally competitive (1) and so may raise employment (1) and economic growth (1) and improve the balance of payments (1).

Up to 5 marks: may be adverse side effects of increasing taxes – lower demand may cause unemployment (1), lower demand may reduce economic growth (1), higher taxes may increase firms' costs (1), may encourage workers to ask for pay rises (1) and so may cause cost-push inflation (1).

Up to 8 marks for why it should reduce taxes:

Up to 5 marks: will increase disposable income/amount of money people have to spend from working (1) and the profit firms can keep (1). This may act as an incentive to effort (1), which may increase output (1) and so reduce cost-push inflation (1).

Up to 3 marks: lower taxes on firms will reduce their costs of production (1), this can increase total (aggregate) supply (1) and so reduce cost-push inflation (1).

Up to 6 marks: may encourage MNCs to set up in the country (1) as their profits may rise (1) due to higher consumer spending (1) and possibly lower corporate tax (1). MNCs may use more advanced technology (1) and this can reduce cost-push inflation (1).

Up to 3 marks: lower income tax may reduce wage claims (1); this will reduce the increase in firms' costs of production (1) and so lower cost-push inflation (1).

Up to 2 marks: lower taxes on firms' profits, which increase investment, will in the long run increase productive capacity (1), which should lower cost-push inflation (1).

Up to 4 marks: may be adverse side effects of decreasing taxes – higher demand (1) may cause demand-pull inflation (1), may increase imports (1) and cause a current account deficit (1).

Up to 2 marks for lower indirect taxes (e.g. sales tax) will reduce prices (1) in the short run (1).

Maximum of 5 marks for a list or list-like response.

Note: a maximum of 10 marks overall.

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