STRICTLY CONFIDENTIAL

THE PUBLIC ACCOUNTANTS EXAMINATION COUNCIL OF MALAWI

2009 EXAMINATIONS

ACCOUNTING TECHNICIAN PROGRAMME

PAPER TC 5: ECONOMICS

(DECEMBER 2009)

TIME ALLOWED : 3 HOURS

SUGGESTED SOLUTIONS

1. (a) It is assumed that this market is currently operating in a perfectly competitive environment. If the firms in this market agreed to merge and form a single monopoly supplier of Internet café, then:

(i) The price would rise to K20 and the quantity traded would fall to 0.2 million.

(ii) Under perfect competition:

Consumer surplus $= \frac{1}{2}b*h = \frac{1}{2}*0.4*(30-10) = K4\,million$

Producer surplus $= \frac{1}{2}b*h = \frac{1}{2}*0.4*(10-10) = K0$

Total welfare $= CS + PS = K4 + 0 = K4 million$

(iii) Under perfect monopoly:

Consumer surplus = $\frac{1}{2}b*h = \frac{1}{2}*0.2*(30-20) = K1\ million$

Producer surplus $= \frac{1}{2}b*h = \frac{1}{2}*0.2*(20-10) = K2\,million$

Total welfare $= CS + PS = K1 + K2 = K3 million$

(b) Monopolies are sometimes preferred to perfect competition because:

(i) As a producer of a particular product may imply that the monopolist can benefit from economies of scale which are not possible under perfect competition. (In this case, the monopolist marginal cost curve could be lower than the supply curve obtained under perfect competition). As a result the monopolist would charge lower price and produce more output than would the case be with perfect competition.

(ii) The fact that monopolies earn supernormal profit in the long run means they can allocate resources to R&D so as to improve quality of product, and therefore benefit society.

Note: other points can be considered.

(c) The **four** characteristics of a perfectly competitive market are as follows:

(i) There are many buyers and sellers in the market.
(ii) Firms are price takers.
(iii) In this market, both the producer and consumer are assumed to have perfect knowledge (information).
(iv) Products produced are homogeneous.

2. (a) The production possibility curve is the graph that shows the alternative combinations of two products that the economy can produce if it fully utilizes its resources, and represents the boundary between the products that can be produced, i.e., within the frontier and those that cannot, i.e. outside the boundary.

(b) An understanding of opportunity cost is very important in interpreting the movements along the production possibility curve because a switch from one product to another illustrates opportunity costs. This implies that along the production possibility curve the opportunity cost of producing more of one product would be the lost production units of the other.

(c) The **four** economic changes that can lead to a rightward shift in the production possibility curve are:

(i) An increase in labour force.

(ii) An improvement or more efficiency in methods of working.

(iii) Technological advancements.

(iv) A new discovery of natural resources such as oil.

(d) The **three** disadvantages of a free market economy are as follows:

(i) It may lead to discrimination: those with higher income levels have more money votes and therefore greater say in what is produced.
(ii) Much as the market mechanism creates competition between producers, monopolies can still merge through mergers and this can work to the public disadvantage such as high pricing of products.
(iii) Certain goods, especially the merit and public goods may be under-provided or may not be provided at all. .

(e) There are **three** basic resource allocation decisions as follows:

(i) What goods and services should be produced? This will depend on what consumers want to buy and what they will pay for each product.

(ii) How will these goods and services be produced? The producers of products might be small or large, private or public companies. The choice about who will produce the products and how they will be produced will depend on the costs of resources and the efficiencies of resource utilization.

(iii) To whom will the products be distributed? Some products may be provided free by the state while others have to be paid for. The distribution of products will largely depend on the distribution of income and wealth in society.

3. (a) The likely price elasticity of demand for salt in Malawi is zero, i.e. perfectly inelastic.

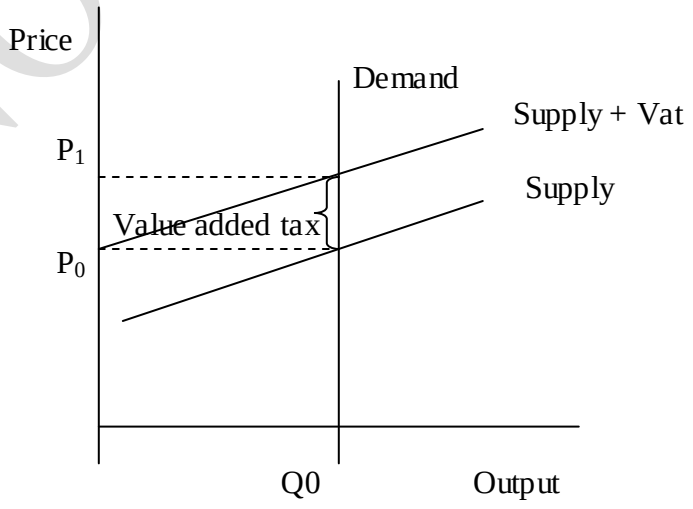
(b) The traders selling salt in Malawi would be more willing to increase its price because the more price inelastic a product is the higher the revenue generation if its price increases. In other words, an increase in price leads to a negligible decrease in demand for the product. Since salt displays such characteristics then it will be more profitable to increase its price.

(c) The following reasons explain why regardless of the much expected rise in price of salt, its price is still very low:

(i) Low cost of production. Salt production does not necessarily require high cost of production in terms of machinery and labour. Since most traders tend to apply mark-up pricing, the low cost of production translates into low pricing of the product.

(ii) Availability. Salt is available in abundance particularly in the seas and oceans. Since scarcity determines the value (price) the more abundant or readily available the product is, the lower its value (price) will be.

(d)



(d) In the event that the Malawi Government decides to levy value added tax on salt, the results will be as shown in the diagram above. There will be a leftward shift in the supply curve to the one shown by supply + vat curve. This will lead to an increase in price from P_0 to P_1 as shown. Since the price elasticity of demand for salt is perfectly inelastic, the entire burden of the tax will fall on the shoulders of the consumers.

(e) The following are the **three** factors that can influence the price elasticity of supply:

(i) The existence of spare capacity. Even if the price of the product increases a firm may not be able to increase supply if they do not have spare, unused or surplus capacity.

(ii) The availability of stocks. The firm may have accumulated a large quantity of unsold stocks which can be quickly supplied to the market. If this is the case then supply will tend to be more elastic.

(iii) Mobility of factors of production. If there is easy reallocation of resources from one product to the other in the firm then the supply for that product will be more elastic.

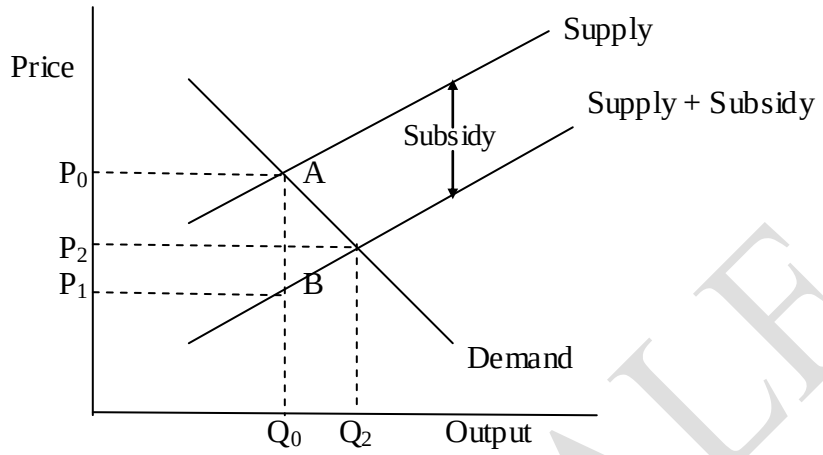
4. (a) The following are the differences between the terminologies:

(i) Private cost measures the cost to a firm of the resources it uses to produce a product while social cost measures the cost to society as a whole of the resources that a firm uses.

(ii) Private benefit measures the benefit obtained directly by a supplier or by a consumer while social benefit measures the total benefit obtained, both directly by a supplier or a consumer, and indirectly, at no extra cost, to other suppliers or consumers.

(b) One positive externality that may ensue from mining uranium at Kayerekera in Karonga hills is creation of jobs to the people in the surrounding areas while the negative externality would be health problems resulting from breathing the contaminated air.

(c) The following diagram indicates the price and output effects of the extension of the fertilizer subsidy to the Malawian tobacco growers.



If there were no fertilizer subsidy, the free market equilibrium price would be P_0 and output would be Q_0. With a fertilizer subsidy per unit equivalent to AB, tobacco farmers would be willing to produce Q_0 then consumers need only to be charged P_1, because the effect of the fertilizer subsidy is like growers are receiving a subsidy of AB per unit of tobacco produced. This reflects the fact that the supply curve shifts from 'supply' to 'supply' + Subsidy'. However, given the position of the demand curve, there will be a shift in the equilibrium quantity produced to Q_2, which can be sold on the market for P_2. Thus, the effect of the subsidy will be an increase in the amount of tobacco produced and a decrease in the price but the decrease in the price will be less than the value of the subsidy itself.

(d) Subsidies are made in order to:

(i) Encourage more production of the good, by offering a further incentive to suppliers.

(ii) Keep prices on the market lower. Subsidized goods tend to be cheaper to the consumer. Hence such goods become socially desirable whose production the government wishes to encourage.

(iii) Protect a vital industry such as agriculture, when current demand in the short term is low and threatening to cause an excessive contraction of the industry.

SECTION B

5. (a) **A** stands for **firms**, **B** stands for **expenditure** and **C** stands for **income** (wages and salaries).

(b) (i) (1) Injections are movements of funds into the cycle of income and expenditure between firms and households.

(2) Withdrawals are movements of funds out of the cycle.

(ii) **Two** examples of injections are: investment, exports (and government spending) while the **two** examples of withdrawals are: savings, imports (and taxation)

(c) There are basically **three** approaches of measuring national income, namely the income approach, the output approach and the expenditure approach.

1. The Income Approach

This approach in calculating GNP involves adding together the income earned by Malawian individuals and corporations in the production of goods and services. It is the generated income of the total economy. (Optional): The calculation of GNP using the income approach can be summarized as:
GNP – CCA = NNP, where,

NNP – T_i = NI
NI = W & S + Proprietors' income + rental income of persons + Corporate profits + net interest.
NI – Corporate profits – social insurance contributions –net interest + personal interest + dividends + transfer receipts = P1
PI - T_d + non tax payments = Y_d
Y_d = C = S

2. The output Approach

This approach involves adding together the value added of the output from the various sectors of the economy, namely agriculture, manufacturing, construction, transport and so on. Value added means sales of value of goods sold minus the cost of bought-in materials, components, supplies and services.

3. The Expenditure Approach

This method of calculating national income involves totaling the expenditure of the various agents in the economy on final output. As such, the approach measures total expenditure on finished or final goods and services produced in an economy.

(Optional): The approach can be represented as:
GDP = C + G + I + (X – M), where,

C	=	Final consumption expenditure by households
G	=	Government consumption expenditure
I	=	Investment or gross capital formation
X	=	Exports
M	=	Imports

(d) **Two** difficulties that are associated with calculation of national income are:

(i) Production which includes only goods and services that are paid for but excludes work done by a person for oneself.

(ii) Data from which the national income figure is estimated tend to contain errors.

6. (a) Budget deficit occurs when government expenditure exceeds its revenue.

(b) (i) **Two** direct taxes can be named and explained as follows:

(1) Personal income tax is the tax levied on the income of individuals.

(2) Corporate or corporation tax – is the tax levied on the income of companies.

(ii) **Two** indirect taxes can be named and explained as follows:

(1) Value Added tax – is the tax levied on some consumable goods.

(2) Import duty is the tax levied on some consumable goods which are imported into the country.

(c) Crowding-out effect occurs when high interest rates, resulting from huge government borrowing, deter certain kinds of private investment spending.

(d) **Four** arguments against public debt in Malawi would include:

(i) The debt incurred by the present generation will have to be repaid by future generations, including the interest on the debt.

(ii) A certain percentage of the national debt is held externally (overseas) which, in turn, can be viewed as a real burden on the economy in terms of an outflow from Malawi of the final redemption and interest repayments.

(iii) The existence of national debt implies that the level of taxation is higher than it would be if the national debt did not exist.

(iv) There are costs incurred in administering the national debt and, although these costs are only a small proportion of GDP, these resources could have been used elsewhere in the economy.

7. (a) **Four** main factors that can influence the volume of investment in an economy are:

(i) The expected return from investment.

(ii) Interest rates.

(iii) New technology and methods of production.

(iv) Changes in income.

(b) (i) Marginal propensity to save is the proportion of the increase in income that is saved.

(ii) The multiplier is given as $\frac{1}{MPS} = \frac{1}{0.05} = 20$

(ii) If household income increases by K200, then the total national income will increase by $\frac{1}{MPS} * 200 = 20 * 200 = K4{,}000$

(c) The size of the multiplier depends on:

(i) The marginal propensity to save.

(ii) The marginal propensity to import.

(d) The **four** main factors that limit the importance of the multiplier as far as the economic management is concerned are:

(i) It is more relevant to a demand-deficient economy with high unemployment of resources, than to an economy where there is full employment. If there is full employment, any increases in demand will be inflationary.

(ii) The leakages from the circular flow of income might make the value of the multiplier very low and so 'pump priming' measures to inject extra spending in the economy would have little effect. This is relevant to Malawi where there is very high marginal propensity to import.

(iii) There may be long periods of adjustment before the benefits of the multiplier are felt. If a government wants immediate action to improve the economy, relying on demand management and the multiplier could be too slow.

(iv) The consumption function in advanced economies is probably more volatile than Keynes believed. If consumption is unpredictable, measures to influence national income through the multiplier will be impossible to predict too.

8. (a) International trade, say in the SADC region, may arise due to the following reasons:

(i) Different goods require different proportions of factor inputs in their production which are found in different countries.

(ii) Economic resources are unevenly distributed throughout the SADC region (and indeed throughout the world).

(iii) The international mobility of resources is extremely limited.

(b) **Four** advantages that may arise from free trade within the SADC member states are:

(i) Some countries within the SADC region have a surplus of raw materials to their need while others have a deficit. Countries with a surplus, e.g., oil can take advantage of its resources and export them.

(ii) International trade would increase competition amongst suppliers in the SADC member states and this would lead to adequate and better quality products at fair prices.

(iii) International trade would help create larger markets for firms' output in the SADC region as such some firms can benefit from economies of scale by engaging in export activities.

(iv) There are political advantages to international trade, because the development of trading links provides a foundation for closer political ties. This is what SADC requires to accomplish.

(c) In spite of the calls for free trade, Malawi, like many countries, may still pursue protectionist measures due to the following **four** reasons:

(i) There might be need to protect infant industries that are not yet ready to compete in international markets.

(ii) Protectionism is often seen as a means for a country to reduce its balance of trade deficit by imposing tariffs on imports.

(iii) Protectionism might help countries like Malawi in the short term to deal with the problems of declining industry.

(iv) Protectionism might be the right measure to counter dumping of surplus production from other countries.

(d) The **five** disadvantages of protectionism are as follows:

(i) Protectionist measures usually taken by one country tend to provoke retaliation by others. This leads to reduction in the volume of trade.

(ii) Protectionism would limit competition and hence lead to inadequate and poor quality products being produced at high prices.

(iii) Because of retaliation by other countries, protectionist measures to reverse balance of trade deficit are unlikely to succeed.

(iv) Generally, widespread protectionism tends to damage the prospects of economic growth.

(v) Protectionism creates political ill-will amongst countries and so there are political disadvantages in a policy of protection.

9. (a) The term unemployment is defined as people who are out of work, who want a job and are actively looking for a job.

(b) The unemployment being referred to here is likely to be seasonal unemployment.

Seasonal unemployment arises due to changes in times or seasons. This is very common in the agricultural sector of poor countries such as Malawi. In case of the tobacco industry, many people are likely to get employed during the planting and harvesting time. However, these people are likely to be unemployed afterwards and they tend to remain unemployed until the next growing season.

(c) **Two** negative effects of unemployment include the following:

(i) The economic cost
This refers to the lost output which could have been produced had the unemployed been in employment. The unemployed labour represents a loss of resources and with it a resulting lower standard of living.

(ii) The social cost
Though this cost is difficult to calculate, unemployment will in the long term lead to demoralization. The results can be family unrest, depression and possibly an increase in crime rate.

(d) Technological improvement such as usage of tractors in the tobacco industry and structural unemployment could be linked in the following way:

Structural unemployment is the one that arises due to structural changes in either an industry or the economy such as changes in technology and comparative costs of an industry. With technological advancements regarding the usage of tractors, the cultivation of tobacco may require fewer labourers. The reduction in demand for labourers (most of whom might not be highly trained technologically) would lead to this kind of unemployment.

(e) **Two** remedial policies that Government of Malawi can employ to reduce cylical unemployment are fiscal and monetary policies.

(i) In case of fiscal policy, government can increase aggregate demand, either through the increase in total government expend

(ii) On its part, the monetary policy can be used to influence the level of aggregate demand by means of interest rate and the level of credit available. For instance, the reduction in interest rate makes it cheaper to borrow for consumption and investment and this will stimulate demand in the economy.

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