PAC PROFESSIONAL EXCELLENCE

Mock Exam, Spring–2013
Introduction to Economics & Finance (Solution)

Answer to Q.1 (a)

- In market economy, there is minimum role of the government. All the economic issues like what to produce, how to produce, and for whom to produce are resolved through the movement of prices. **(02)**
- In market economy prices play the role of a signal. Changes in demand and supply forces move prices upwards or downwards and accordingly economic agents take their decisions regarding resource allocation. Factors of production will move where prices will increase. All economic agents will move to maximize their interest. When markets work perfectly, it will produce an optimum outcome. **(03)**

Answer to Q.1 (b)

Scarcity results from scarce resources and unlimited wants. **(01)**
An effective maximum price would be set below the market equilibrium. Unless the government took additional measures it would result in excess demand and a smaller quantity sold at a lower price. While some would benefit from lower prices others would now go without the good. Overall the action would not reduce the level of scarcity. **(04)**

Answer to Q.2 (a)

- Price elasticity of supply is a measure of responsiveness of quantity supplied to a change price. **(01)**
- Determinants of elasticity of supply
  - Time period and supply are positively related. In very short period supply is perfectly inelastic. In short run or short period supply is inelastic. Changes in short run are possible but up to a certain limit. It is because in short run at least one factor of production is fixed and others are variable. In long run supply is elastic because in long run firms can change the scale of their production by changing land, labor, capital and entrepreneur.
  - Elasticity of supply depends upon availability of resources. If factors of production and raw material are available, supply would be elastic other wise inelastic.

(04)

Answer to Q.2 (b)

- Price elasticity of demand is the measure of responsiveness of quantity demannded to a change in price where as income elasticity of demand is the measure of responsiveness of demand to a change in inncome of the connsumer. **(1.5)**
- Elasiticy of demand can be used by the finance minister. In order to maximize tax revenue of the government it will impose high taxes on inelastic goods and low tax on elastic goods.
- Firms while decidinng their pricinng strategy, can also use the elasticity of their goods. In case of elastic good, firm will charge low price and in case of inelastic good it will charge high prices.
- However estimates of income and price elasticity of demand may be inaccurate, circumstances may change and ther emay be little use of or trust in the measures. **(3.5)**

Answer to Q.3 (a)

Floating exchange rate system

When the value of currency depriciates or appreciates purely as a result of market forces, that is changes in demand and / or the supply of a currency, then the exchange rate is said to be freely floating. Under this system the exchange rate is determined purely by market forces.

Under floating exchange rate system fluctuations in the exchange rate can provide an **automatic adjustment** for countries with a large balance of payments deficit. If an economy has a large deficit, there is a net outflow of currency from the country. This puts downward pressure on the exchange rate and if depreciation occurs, the relative price of exports in overseas markets falls (making exports more competitive) whilst the relative price of imports in the home markets goes up (making imports appear more expensive).

This should help reduce the overall deficit in the balance of trade provided that the price elasticity of demand for exports and the price elasticity of demand for imports is sufficiently high.

(04)

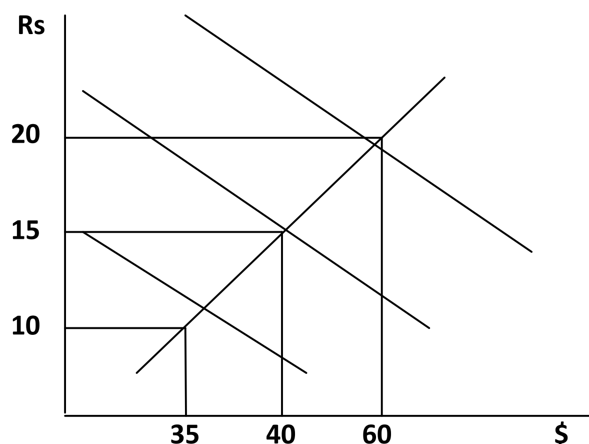
Fixed exchange rate system

A fixed rate is determined by government action. It requires currency reserves which are employed to counteract market demand and supply forces. Downward pressure requires the urchase of the currency through the sale of foreign currencies. Diagras may clarify the cases. A fixed exchange rate is usually used to stabilize the value of a currency against the currency it is pegged to. This makes trade and investments between the two countries easier and more predictable and is especially useful for small economies in which external trade forms a large part of their GDP.

Fixed rates provide greater **certainty** for exporters and importers and under normally circumstances there is less **speculative activity.**

Fixed exchange rates can exert a strong discipline on domestic firms and employees to keep their costs under control in order to remain competitive in international markets.

(04)



Answer to Q.3 (b)

Reducing exchange rate or devaluation is a tool to improve balance of payment of a country. It makes imports expensive for domestic consumers and exports cheaper for foreign buyers. **(02)**

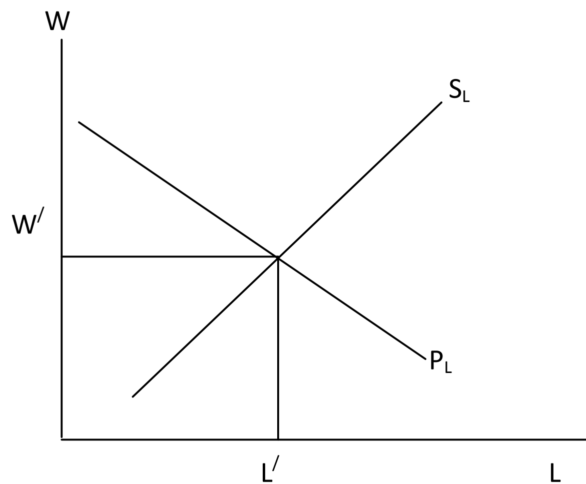
Similarly quotas are also introduced to restrict the supply of foreign goods in local market.

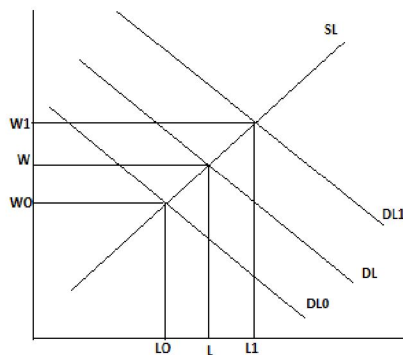
Devaluation works by altering the prices of imports and exports. Its success requires the correct elasticity of demand, a responsive supply of domestic production and an absence of retaliation. Quotas physically limit imports and push up the market price by limiting supply of imports. They are effective even when demand is inelastic, when appropriate limits are chosen and when there is no retaliation. **(02)**

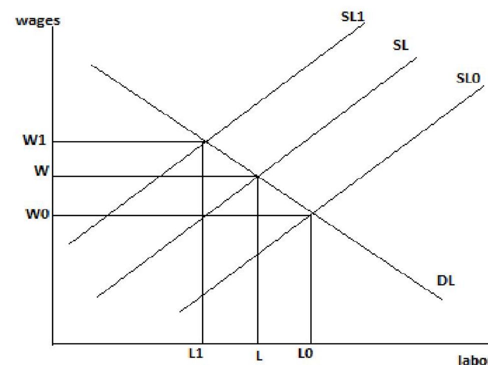
Answer to Q.4 (a)

- In perfect labor market, wages are determined through the interaction of demand for labor and supply of labor. **(01)**
- Demand for labor and supply of labor curves are used to describe labor market equilibrium. Through this equilibrium we can determine the wage in free market under perfect competition. Wages will change through changes in demand and supply of labor. Any shift in demand and supply curve will change the wage rate. **(02)**

Diagram.







(02)

Answer to Q.4 (b)

Free market is considered to be an ideal market. However it is not always perfect due to following imperfections. **(01)**

Government announces minimum prices to protect the labor. Employer is bound to pay these wages instead of the wage rate determined by demand and supply of labor.

Some times trade union negotiates wage rate with employer. Through trade union labor behaves like a monopolist. In this way wages are normally decided above the market wage rate.

Different pressure groups in the society also create an influence on wage rate.

Some time there is only one firm which is buyer of a particular skill. Now it is monopoly on buyer side, called Monopsony. In this situation wages are not determined like free market. **(02)**

Answer to Q.5 (a)

Gross domestic product (**GDP**) is the market value of all officially recognized final goods and services produced within a country in a given period of time. **(01)**

Following are the methods used to measure national income:

- **Measuring National Income with the Output Approach**

In this method we add up all the contributions to domestic output made by each producing unit in the country. It is important to remember, however, that the emphasis must be on the value added by each producing unit; otherwise some output may be counted twice. To avoid such double counting the value of intermediate products must be subtracted from the value of the final product.

Alternatively it is possible to concentrate solely on the value of final goods and services, as is done largely in the service sector, where the value of all the input costs is totaled up to measure the final value of the output. For example, education and health services of output and maintenance etc.

- **Measuring National Income with Income Approach**

The value of output produced is based on the costs involved in producing that output. These costs include wages, rent, interest and profits. All these payments represent income paid to factors of production. For instance, workers receive wages ad entrepreneurs receive profits. In using this measure it is important to include only payments received in return for providing a good or service. So transfer payments, which are transfers of income from taxpayers to groups of individuals for welfare payments, are not included.

- **Measuring National Income with Expenditure Approach**

What is produced in a year will either be sold or added to stocks. So, if additions to stocks are added to expenditure on goods and services, a measure is obtained which will equal output and services, a measure is obtained which will equal output and income. In using this method it is necessary to add expenditure on exports and deduct expenditure on imports. This is because the sale of exports represents the country’s output and creates income in the country. Whereas expenditure on imports is

spending on goods and services made in foreign countries and creates income for people in those countries.

(02 marks each for any two points)

Answer to Q.5 (b)

Importance and Uses of National Income Measurement ***(01 mark for each point, Total = 04)***

1. **Measuring Economic Growth**
   As these figures are a measure of economic activity, the annual national income can be compared with previous years and an impression is thereby gained about changes in the standard of living.
2. **Comparing Countries**
   Apart from comparisons across time, these national accounts also offer opportunities to make comparisons between countries in terms of development, affluence, policies and so on. In fact, contributions to international agencies such as the IMF, Red Cross, World Bank, and the EEC are often assessed as a percentage of a country's GNP.
3. **Government Planning**
   The statistical tables on expenditure, output, and income provide an important analytical tool to those economists who are involved in recommending and evaluating policies on behalf of government.
4. **Evaluation of Economic Climate**
   Similarly businessmen, research students, trade union representatives, and journalists involved in interpreting economic trends will find the statistical bread downs provided in the various tables most useful for their forecasts and work in general.

Answer to Q.6 (a)

<u>Oligopoly</u>

Oligopoly is a market structure in which a few large firms dominate the market. Many industries, such as steel, aluminum, motor vehicle manufacturing, airline, banking, insurance, pharmaceuticals and tobacco are best examples of oligopolistic market structure. **(02)**

Following are the **main features** of oligopoly. ***(01 mark each for feature, Total=04)***

Few sellers: Under this market structure, there is competition among the few sellers. But what does a few firms really mean? Does this mean at least two, but less than ten? As with other market structures, the answer is not that a specific number of firms must dominate an industry if it is to be described as oligopolistic.

Mutual interdependence: while designing the policy, a firm will always consider the policy and strategies of other firms in the industry.

Homogeneous or differentiated products: Under oligopoly, firms can produce either a homogeneous or a differentiated product or service. For example: automobile sector produce differentiated goods however OPEC is dealing in homogeneous goods. ***Barriers to entry:*** Similar to monopoly, formidable barriers to entry in an oligopoly market protect firms from new entrants. These barriers include very large financial requirements to enter the market, control of an essential resource by existing firms, patent rights held by existing firms, and other legal barriers such as licenses required operating in an industry.

Advertisement: In oligopolistic market, firms may have price and non price competition. So firms spend heavy amounts on advertisement to attract their customers.

Price stability: Firms in this market structure are price maker. Like monopoly, these firms do not change their price frequently. Hence prices remain stable for longer period in this market model.

Possible Strategies

Collusive and non collusive case: An extreme case of mutual interdependence occurs when oligopolistic firms collude. Usually with the intention of raising profits they can collude with each other. For example OPEC is an example of collusive oligopoly. If the agreement between them is declared and written so we call it a collusive oligopoly. Collusive oligopoly is also called cartel. ***Cartel is a group of firms formally agreeing to control the price and the output of a product.*** Forming a **cartel**, firms can behave like a monopolist and reap all those benefits which are always available for a single player.

In contrast firms under oligopoly sometimes do not have any agreement between them, they openly involve in competition on the basis of price and other non price tactics. This type of oligopolistic market is called non collusive oligopoly.

Tacit co – cooperation: When firms are not allowed to affect prices through collusive behavior, a small group of firms can recognize that each firm has influence on others. Hence they may act without any explicit agreements to achieve the co operative equilibrium. This type of behavior is given the name of tacit behavior of oligopolistic firm.

Answer to Q.6 (b) **(02 marks for disadvantages & 02 marks for advantages)**

- High prices charged by monopolist will result into exploitation of the consumer.
- Monopolist will discourage competition resulting into limited choice for the consumer. Monopolist spends more on research and development.
- Monopolist firm obtains economies of scale due to its large scale production.
- When it is social monopoly, it is beneficial for the consumer.

Natural monopoly – a market where average costs are lowest with one provider and where duplication is wasteful. **(02)**

Answer to Q.7 (a)

Multiplier

A small change in investment brings multiple changes in national income. The small increase in investment brings large change in national income due to the role of multiplier or due to the force of multiplier. We can define multiplier as "it is the ratio of change in national income due to change in investment".

$$K = \frac{\Delta Y(Change\ in\ National\ Income)}{\Delta I(Changein\ Investment)}$$

If the national income increases by $.1000 billion as a result of an increase in the level of investment by $.100 billon the numerical size of the multiplier would be $K = \frac{1000}{10} = 10$.

Size of multiplier depends upon the value of MPC and MPS in the economy.

$K = \frac{1}{MPS}$ or $K = \frac{1}{1-MPC}$

Suppose MPC = 0.9 and MPS = 0.1

$K = \frac{1}{0.1} = 10$ or $K = \frac{1}{1-0.9} = 10$

Multiplier Process

We shall now explain as to how our investments of $.100 billion in an economy increase the national income to multiple extents. With an investment of $.100 billion the investor purchase machines a raw material. This would increase the income of the seller of the capital goods by $.100 billion. Assuming that MPC = 0.9 and under the stability of consumption function the sellers will hence divide the income or $.100 billion into two parts. 90 billion dollars are spent on consumer goods and 10 billion dollar is saved. The 90 billion spent on consumer goods by the seller become the, income of the sellers of consumer goods who in turn divide the income of $.90 billion in two parts. With the stability of consumption function 90% it will consume and 10% saved. This process will continue until the national income will increase to the extent of ΔI×K. We can convert previous discussion into a table.

Δ ($ bln)	**ΔY($ bln)**	**ΔC($ bln)**	**ΔS($ bln)**
100	100	90	10
	90	81	9
	81	72.9	8.1
	72.9	.65.61	7.29
	.	.	.
	.	.	.
	.	.	.
	.	.	.
100	**1000**	**900**	**100**

We can see from above table that initial investment of $. 100 billion through multiplier process has brought the change of 1000 billion dollar. **(04)**

Assumption of the Multiplier Theory

1. The economy is assumed to be a closed economy.
2. No leakages from the income stream
3. There is no change in the pattern on income distribution.
4. The MPC remains constant.
5. There is no time lag involve between income and consumption.
6. There is no role of induced investment.

(03)

Limitations of Multiplier theory

1. Different leakages may take place during a series of consumption. It will change the value of multiplier.
2. In this theory it is assumed that value off multiplier is constant. Practically it may change.
3. Multiplier theory assumes that there should be spontaneous increase in the national income as a result in investment. However, in reality this is not immediately after investment but takes time. So time factor is ignored.
4. In this theory, autonomous investment is discussed but induced investment is ignored.

(03)

Answer to Q.7 (b)

- Lending is the main function of commercial of commercial banks. They lend money to general public for different purposes. Banks charge interest rate on the amount they lend to the people. **(02)**
- Commercial banks borrow money from general public. People deposit these amounts with commercial banks to earn profit. Commercial banks use this money for their lending purpose.
- Commercial banks make loans; they actually create new deposits, which in turn become reserves for further creation of deposits. In this way bank expand deposits many times the original deposit. This process increases money supply in the country.
- Commercial banks provide expert advice to their clients about financial and investment matters.

(01 mark each function)

Answer to Q.8 (a)

Some economists believe that inflation is caused by the increase in aggregate demand for goods. They say that demand may rise due to many causes including increased money supply, people may save less and consume more. **(02)**

Similarly few economists think that inflation occurs due to rising costs. When the firms pass on, their increased costs to consumers in the form of higher prices it is called cost push inflation. Rising demand for the products will result into increase in labor demand and hence wages will also increase. **(02)**

Answer to Q.8 (b)

- Inflation is harmful for the people belonging to fixed income group. **(02)**
- Inflation deteriorates balance of payment.
- Inflation leads to unequal distribution of wealth.
- Inflation leads to the growth of economy

(02 marks for positive effects of inflation & 02 marks for negative effects of inflation)

Answer to Q.9

1. D 2.C 3.C 4.A 5.C 6.C 7.D 8.A 9.C 10.D 11.D 12.C

13. B 14.C 15.B

(The End)