Total Marks = 90

Q.2 (a) The Principal Agent Problem:

The principal agent problem arises where the owners or members of an organization (principals) give authority to a manager (agent) to run the organization. There is no assurance that the agent will run the organization in the best interests of the principals.

The interests of managers and shareholders can be aligned in a corporate form of organization and the main ways to resolve the principal agent problem are:

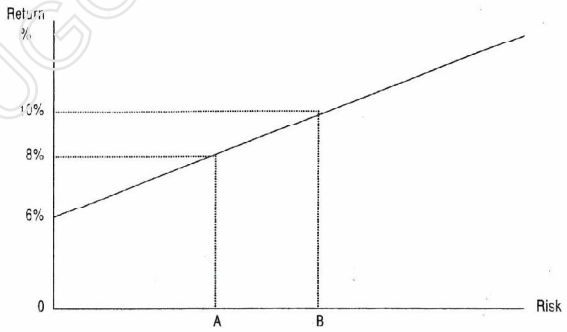
a) **Improved scrutiny:** Principals have kept a closer watch on agents through requiring clearer disclosure of decisions (e.g. at company meetings), appointing independent members to the management board and appointing auditors to monitor decisions.

b) **Checks and balance:** These avoid the particular manager to dominate the organization. Measures include expended management committees or boards, separation of duties (e.g. between chairman and chief executive) the requirement that more decisions be put to formal votes, and maximum periods of office for directors.

c) **Incentives:** These tie the pay of the manager to the achievement of the goals of the agent. Thus, it is common for chief Executive bonuses depend at least in part on satisfactory achievement in such matters as profit and share price. In a nonprofit organization managers bonuses might be paid for achievement of non financial targets such as increased membership number of persons helped.

(b) A shareholders' risk return curve shows the minimum rate of return that shareholders will accept as compensation for higher risks to their investments.

Figure shows shareholders' risk-return curve (also called a shareholders indifference curves).



In figure if the risk is 0 the investor regards 6% as the minimum return they will take for investing. This is sometimes called the risk free rate. If investors are asked to invest in the shares of firm A they require a return of at least 8% before they will do so. Firm B seems as more risky and so the investors would require at least 10% return.

The Higher the risk, the higher the required return.

The risk free rate is determined by two factors.

(a) **The time value of money:** investing money now means that the investor must delay buying goods and services for a while. They will require some compensation for this as a minimum return on their money,

(b) **The rate of inflation:** if prices are rising at 5% it would mean that $100 invested at the start of the year could only buy $95 worth of goods at the end of the year. Investors need to receive a minimum return to compensate for this.

(c) Substitute Goods:

Substitute goods are those goods which can be used for one another or which can be replaced for another i.e. it means one product can be used for another. Examples of substitute goods are: Coke, Pepsi/tea, coffee/CNG, petrol.

Complementary Goods:

Complementary goods are those goods which are necessary for one another. These goods are also known as jointly consumed goods. Examples of complementary goods are petrol and car/film and camera/lighter and cigarette. With reference to above article, CNG or diesel could be substitute goods for oil, whereas all vehicles may be complementary goods for oil.

Q.3 (a) By price instability, we mean that the prices do not remain stable due to instability of demand and supply.

Government stabilization schemes for agricultural markets include direct payments to producers, subsides for set-aside or for producing particular crops, and government purchase of surpluses.

Direct payments schemes

The government pay a sum to farmers based on the amount they produce. For example a beef farmer would receive an amount of money per head of cattle.

This amount is usually based on the difference between the average market price for the crop and the income that the government wish the farmer to receive.

Subsidies and set aside

This is a payment not to produce the product. It is used where market prices have been depressed by excess supply. The government will pay a subsidy per area of farm land to produce an alternative crop or a price to set-aside the land and grow nothing on it.

Government purchase of surplus

In some cases the government agrees to buy unsold crop at a guaranteed minimum price. This surplus is then stored and released in future years to push prices if the harvest has been poor and prices are rising.

(b) Marginal Cost (MC):

Marginal cost is the rise in total cost resulting from producing an extra unit of the product. This is the extra cost of producing one more unit of output.

Average Cost:

The unit cost of producing a product at a given volume of output. Calculated as Total Cost/Total Output. The average total cost for a given level of output is the total cost divided by the total quantity produced.

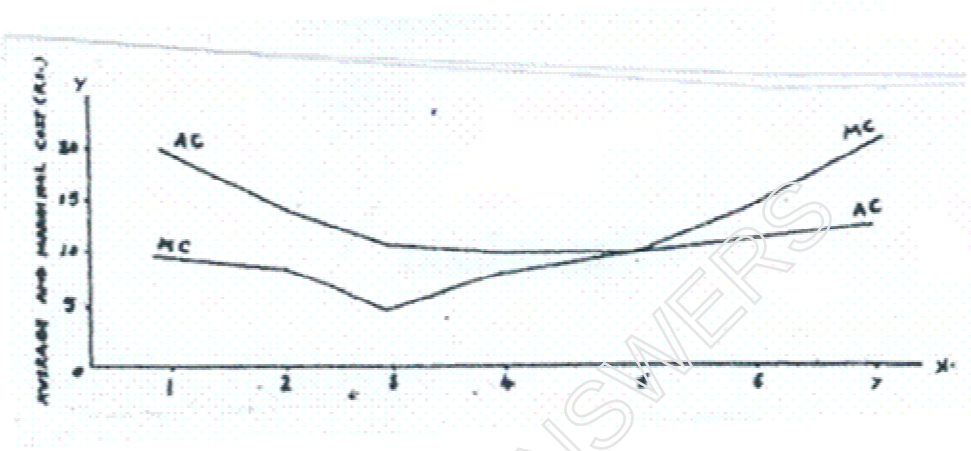
Table – Total, Average and marginal Cost

Output (in unit)	Total Cost (Rupees)	Average Cost (Rupees)	Marginal Cost (Rupees)
0	10	--	--
1	20	20	10
2	28	14	8
3	33	11	5
4	40	10	7
5	50	10	10
6	67	11-1	17
7	84	12	20

Cost Relationships:

By now it should be clear that marginal cost is the addition to total cost with the production of one additional unit. When one unit is produced the total cost is Rs. 20/- and the marginal cost is Rs. 10; when two units are produced the total cost increases to Rs. 28/- and the marginal cost in thus Rs. 8/- (Rs. 28-20) and so on. It becomes easier to study the relationship between marginal costs and average costs through a graph.

Average and Marginal Cost (Rs.)



(Output in units)

You can see that the marginal cost curve has the same general shape as the average cost curve, but a point to remember is that when average cost is decreasing, marginal cost is also decreasing and the marginal cost curve is below the average cost curve. When average cost is increasing, marginal cost is also increasing; but the marginal cost curve is above the average cost curve. The marginal cost curve cuts the Average Cost Curve from below at the lowest point of the Average Cost Curve.

(c) Influence of e-business on cost and market behaviour

This topic has been introduced into the syllabus to demonstrate the application of business economic analysis to a key 21st Century phenomenon the growth of e-business. E-business uses Advanced Communication Technologies (ACT) to provide products and services. This has the potential to radically change the prices and competitive structures of markets.

- **The impact of ACT:**

  Advanced Communication Technologies (ACT) is a collective term used to describe the internet, mobile telephone and data system, digital television, and network communications between firms using extranets and electronic data interchange. They are accessed and supported by a new generation of hardware, such as web-books, smart-phones, digital players, and home entertainment systems, and supported by smart applications software (apps).

  These technologies permit households, firms and other organizations to transmit and to receive high volumes of data very quickly and over substantial distances.

  This is sometimes called third industrial revolution because it is having a profound effect on industries.

- **Reduced search costs for buyers:**

  By reducing search costs for buyers the availability of e-commerce increases the price elasticity of demand for product by permitting wider sharing of price information and providing more substitute.

ACT reduces search costs in several ways:

a) Buyers and sellers can compare a wider range of prices using search engines and price comparison websites.

b) It reduces the costs of gathering additional information on the item by providing on line samples of movies, music and books, pictures and customer reviews of hotels and restaurants and answer to frequently asked questions.

Impact on Price Elasticity of Demand

The reduction of search costs by the introduction of ACT will increase the price elasticity of demand.

- **Zero Variable Costs:**

  Because providing more downloads doesn't increase variable costs for the firm, the supply curve becomes perfectly price elastic.

- **Influence of E-business on Market Prices:**

  The general effect of ACT will be to reduce market prices.

  The extent to which ACT brings about the fall in price and rise in consumption denoted will depend on a number of factors:

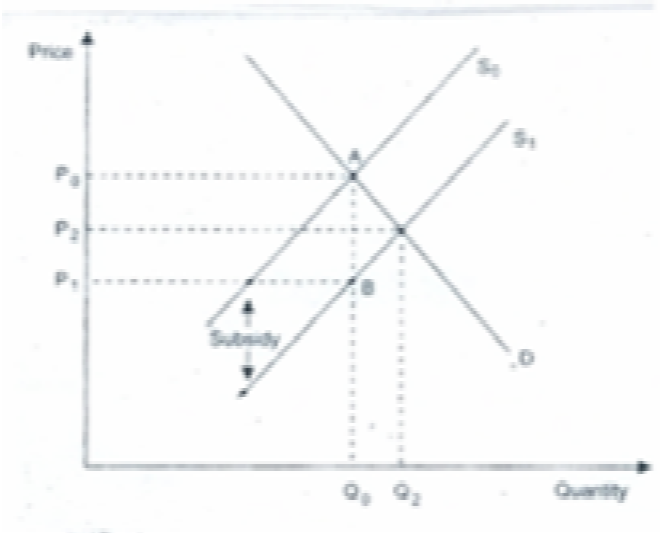
  - The nature of the product
  - The price elasticity of demand for the product
  - The degree of control over market supply
  - The degree of differentiation between ACT platforms

Q.4 (a) A subsidy is payment to the supplier of a good by the government the payment may be made for a variety of reasons

a) To encourage more production of the good by offering a further incentive to suppliers.

b) To keep prices lower for socially desirable goods whose production the government wishes to encourage.

c) To protect a vital industry such as agriculture when demand in the short term is low and threatening to cause an excessive contraction of the industry.



A subsidy is rather like indirect taxation in reverse.

- In figure supply curve S_0 shows what the supply would be if no subsidy existed.
- Payment of the subsidy moves the supply curve downwards (outwards) to S_1.

If there were no subsidy the free market equilibrium price would be P_0, and output Q_0. A subsidy per equivalent to AB is introduced, such that suppliers would now be willing to produce Q_0 at a lower price (P_1 rather that a P_0). In other words, the supply curve shifts outwards from S_0 to S_1. As a result 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 subsidy will have two effects.

- The amount supplied in equilibrium will increase (from Q_0 to Q_2)
- The price will fall (from P_0 to P_2) but the decreases in price will be less than the value of the subsidy itself (P_0–P_1)

(b) In this numerical question examinees have to calculate the elasticity at a particular price. We assume that the demand curve is a straight line. At a price of \$1.50 annual demand is 900,000 units. For a price rise:

% change in demand $\frac{15000}{900,000} \times 100\% = 1.667\%$ (fall)

% change in price $\frac{20C}{150C} \times 100\% = 13.33\%$ (rise)

Price elasticity of demand at \$1.50 = $-\frac{1.667}{13.33} = -0.125$

Ignoring the minus sign the price elasticity at this point is 0.125. Demand is "Indestic" at this point because the elasticity is less than 1.

Q.5 (a) Government expenditure is very unlikely to be equal to government revenue in each fiscal year, and so a government is likely to have either a budget surplus or a budget deficit.

When revenue exceed outlays there is a budget surplus when outlays exceed revenues there is a budget deficit. The deficit can therefore be represented as;

Budget deficit = government expenditure-government revenues

= government purchase (P) + transfer (TR) + net interest (INT) – government revenues (T)

= P+ TR+ INT-T

When governments spend more than they raise in taxes and therefore incur a budget deficit they have to borrow.

The government deficit represents the excess of government spending over government revenues in any one period. As such, the government deficit is a flow concept, just like the profit and loss is a flow concept in the financial statements of a company.

In any one year, the budget deficit represents the amount of new borrowing that the government must undertake.

Government debt is the accumulation of government deficits over time and represents all the debt issued to fund the deficits. Since deficits by governments are funded by issuing government debt is the total outstanding amount of bonds presently in issue.

(b) The real rate of interest:

$$\frac{1 + \text{money rate}}{1 + \text{inflation rate}} = 1 + \text{real rate} \Rightarrow \frac{(1.06)}{(1.04)} = (1 + \text{real rate})$$

(1+ real rate) = 1.0192 => real rate=1.0192 – 1

Real rate = 1.923%

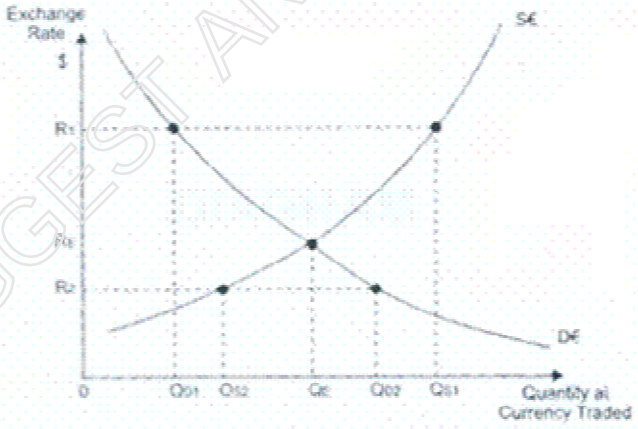
Q.6 (a) An exchange rate is the rate at which one country's currency can be traded in exchange for another country's currency. It is the price of one currency expressed in terms of another currency.

A foreign exchange is a currency of a foreign country. Foreign exchange may also include all currencies, foreign govt. papers and treasury bills denominated in foreign currencies.

The exchange rate may be set by the interaction of demand and supply of the various foreign currencies (floating exchange rate) or by government intervention in order to maintain a constant rate of exchange (fixed exchange rate).

Dealers in foreign exchange make their profit by buying currency at one exchange rate (the bid price), and selling it at a more favourable rate for themselves (the offer price). This means that there is a selling rate and a buying rate for a currency.

Figure 4 shows the application of demand and supply analysis to the determination of exchange rates.



(a) A high exchange rate against other currencies, such as R1, means that a given amount of $ can buy only a small amount of €. So demand for export from Euro countries will be lower. This means demand for Euros will be lower.

(b) A low exchange rate, say R2, means the same amount of $ can buy a larger amount of €. Therefore demand for exports from Euro countries will be higher and, as a result, demand for Euros will be higher.

The forex dealers reduce the rate for two reasons:

(a) **To return** to profitable trading: if rates are too high they will be buying in currency that they cannot then sell. This ties up their capital without making any profit.

(b) **To limit risk of capital loss:** the forex dealer realises that the rate is too high and will soon fall. Given they hold stocks of the currency bough at R1 they will make a loss on this as the rate falls. Therefore they drop the rate to encourage demand and so off-load their surplus stocks of currency.

The forex dealers raise the rates they quote for two reasons:

(c) **To increase profits fro trading:** if rates are too low they will not have enough

currency to sell and so will be tuning away profit. Putting the rate up attracts sellers and gives them the currency they need to sell.

(d) **To make a capital gain:** by putting the rate up of the currency they bought at R2 they will make a capital gain by selling at a higher rate.

The demand for currency extends as the exchange rate falls for three reasons:

(a) **Trade effects:** as the exchange rate depreciates the world prices of product denominated in that currency also fall. For example in Figure assume that R1=$2 to €1. This would mean something costing €20,000 would cost $40,000 (ie €20,00 x $2). If the exchange rate for the Euro fell to $1.5 to €1 then the €20,000 item would now cost only $30,000 (€20,000 x $1.5). If this €20,000 item were a car, a piece of machinery, or a holiday then demand for it from abroad would extend. This would mean that foreign buyers would need € to pay for it an so the demand for € on the foreign exchange market extends above Q_{D1}. The opposite effect would happen if exchange rates rose.

(b) **Portfolio effects:** this refers to the demand for investment assets. A fall in the exchange rates makes foreign investment assets such as bonds and equities cheaper to buy too. This makes the investment assets more attractive to investors who will obtain a yield fro them and also potential capital gains if the exchange rate rises again and they can sell them and buy back into their original currency. To buy the assets the investors need to buy the currency.

(c) **Speculative effects:** as the rate depreciates some forex speculators will begin to buy the currency because they think it is likely to appreciate again in the future and allow them to enjoy a capital gain.

(b) Trade Cycle:

Trade cycles or business cycles are the continual sequence of rapid growth in national income, followed by a slow-down in growth and then a fall in national income (recession). After this recession comes growth again, and when this has reached a peak, the cycle turns into recession once more.

Phases of the Business Cycle:

Recession phase

Recessions are characterised by

(a) Negative economic growth for 2 or more successive quarters (ie for 6 months or more).
(b) Rising levels of unemployment of labour, and associated capital infrastructure.
(c) Low levels of business and consumer confidence.

Recession can begin relatively quickly. This is because of the speed with which the effects of declining demand will be anticipated by businesses which then run down inventories and cut back on investment in new buildings and machinery. This creates a wave of unemployment and falling incomes spreading across the economy as a downward multiplier effect.

Recovery Phase:

The symptoms of a recovery phase are:

(a) Modest rates of economic growth (i.e. rate of increase of national income, usually measured quarterly).
(b) Increase in job vacancies, job creation and reduction in levels of unemployment.
(c) Improvement in profitability of business.
(d) Improved consumer and business confidence, leading to greater to greater expenditure.

Once begun, the phase of recovery is likely to quicken as confidence returns. Output,

employment and income will all begin to rise. Rising production, sales and profit levels will lead to optimistic business expectations, and new investment will be more readily undertaken.

Boom Phase:

The symptoms of the boom phase are:

(a) Low level of unemployment as economy reaches full employment level of national income.
(b) Excess demand for labour and capital resources leads to rising pay and other costs which feeds in to create higher prices.
(c) Excess aggregate demand pulls in imports and diverts export production to serve the domestic market and leads to balance of payments deficits (X<M)

Causes of the Business Cycle:

(a) Instability of private
(b) Business psychology
(c) Inappropriate government policy

Q.7 (a) Unemployment is where all workers willing to take a job at the present level of wages cannot find work.

Calculation of the rate of Unemployment

Rate of unemployment

$$\frac{500000}{8000000} \times 100$$

$$\text{Rate of unemployment} = \frac{\text{Number of unemployment}}{\text{Total work force}} \times 100$$

Rate of unemployment = 6.25

(b) A way of attempting to rectify a balance of payments deficit is to take direct protectionist measures as if trying to reduce the volume of imports these measures might include the following.

(a) Import tariffs
(b) Import quotas
(c) A total ban or embargo on imports from certain country
(d) Placing Administrative burdens on importers (for example increasing documentation required or safety standard that imported goods must comply with)
(e) Exchange control regulation which make it difficult for importers to obtain foreign currency to buy goods from abroad
(f) Providing export subsidies to encourage exports and other measures of financial support to exporters.

(c) Terms of Trade:

The terms of trade are an "export: import" price ratio, which measures the relative prices of a country's exports and imports. The terms of trade for a country continually change as export prices and import prices change.

The terms of trade are measured as:

$$\frac{\text{Unit value of exports}}{\text{Unit value of imports}}$$

THE END