

Questions of viva

1) **Harrod Domer model**

The model was developed by economists Roy Harrod and Evsey Domar in the 1930s and 1940s. The basic idea of the Harrod-Domar model is that economic growth depends on the amount of capital that is available for investment, and that the rate of capital accumulation is proportional to the rate of savings.

2) **endogenous n exogenous in Solow**

Exogenous growth, a key tenet of neoclassical economic theory, states that economic growth is fueled by technological progress independent of economic forces.

The exogenous growth model factors in production, diminishing returns of capital, savings rates, and technological variables to determine economic growth.

Both the exogenous and endogenous growth models stress the role of technological progress in achieving sustained economic growth.

The endogenous growth model differs from the exogenous growth model in that it suggests that forces within the economic system result in creating the atmosphere for technological progress.

3) **Engel curve or ic**

Engel Curves are the locus of all points representing the quantities demanded of the goods at various levels of income, when prices and preferences are held constant

4) **ic**

<https://corporatefinanceinstitute.com/resources/knowledge/economics/indifference-curve/>

5) **transitivity**

Transitivity of preferences is a fundamental principle shared by most major contemporary rational, prescriptive, and descriptive models of decision making.

To have **transitive** preferences, a person, group, or society that prefers choice option x to y and y to z must prefer x to z.

6) **wages rigidity upward or downward**

Rigidity in real **wages**, such that nominal **wages** quickly or immediately adjust to changes in prices regardless of economic conditions, could arise from explicit or implicit contracting or as a byproduct of efficiency-**wage** setting.

Upward wage rigidity makes it challenging for the **wage** to raise, which means that the benefit flowing from companies to workers is difficult. In the same way, downward **wage rigidity** indicates that it is difficult for salaries to fall, and it is challenging for the surplus to flow from workers to firms.

7) **classicals or Keynesians**

Classical Vs. Keynesian Analysis

Classical	Keynesian
Full Employment exists. Equilibrium at full employment	Full Employment is a special case. Equilibrium at lesser than full employment
Supply creates its own demand	Demand creates its own supply
No overproduction	Possibility of glut. Supply doesn't always match demand
No government intervention	No 'laissez faire'.
Wage cut can solve unemployment problem	Wage cuts increases unemployment
Importance of savings and thrift	Saving was a private virtue and can't be forced

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8)cross price elasticity

The measure of responsiveness of the demand for a good towards the change in the price of a related good is called cross price elasticity of demand. It is always measured in percentage terms.

With the consumption behavior being related, the change in the price of a related good leads to a change in the demand of another good. Related goods are of two kinds, i.e. substitutes and complementary goods. In case the two goods are not related, the Coefficient of Cross Elasticity is zero.

In case the two goods are substitutes for each other like tea and coffee, the cross price elasticity will be positive, i.e. if the price of coffee increases, the demand for tea increases. On the other hand, in case the goods are complementary in nature like pen and ink, then the cross elasticity will be negative, i.e. demand for ink will decrease if prices of pen increase or vice-versa.

9)substitutes n complements definition

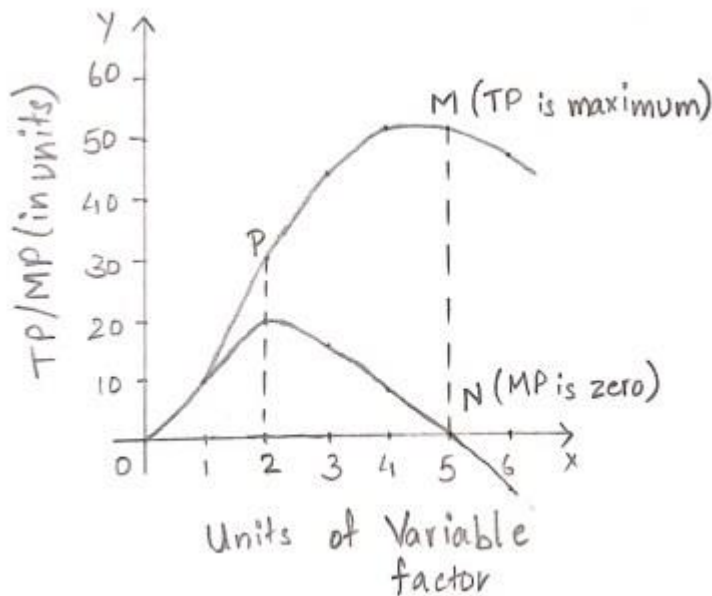
Substitute Goods refers to the goods which can be used in place of one another to satisfy a particular want. Complementary Goods refers to those goods which are consumed together to satisfy a particular want.

10)link b/w TP and MP

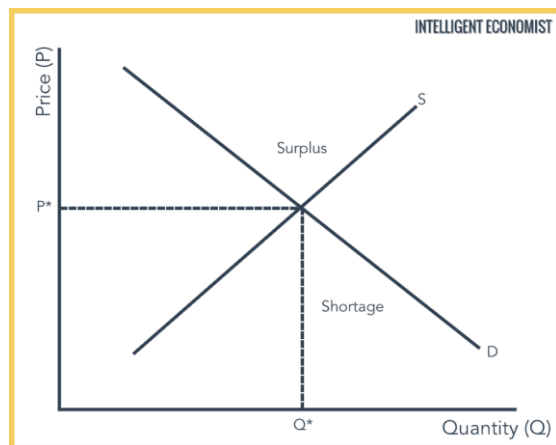
The **relationship between TP and MP** is explained through the Law of Variable Proportions. As long as the **TP** increases at an increasing rate, the **MP** also increases. This goes on till **MP** reaches maximum. When **TP** increases at a diminishing rate, **MP** declines.

Marginal Product = Δ Total Product

This continues till the point where TP is at its highest. When TP reaches its maximum point, MP becomes zero.



11) demand curve supply curve



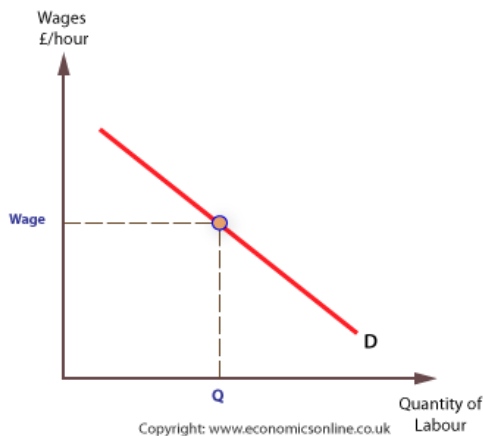
A demand curve shows the relationship between quantity demanded and price in a given market on a graph.

Supply curve shows the relationship between quantity supplied and price on a graph.

12) wage model, show labour demand increase or decrease through diagram

The higher the wage rate, the lower the demand for labour. Hence, the demand for labour curve slopes downwards. As in all markets, a downward sloping demand curve can be explained by reference to the *income* and *substitution* effects.

At higher wages, firms look to substitute capital for labour, or cheaper labour for the relatively expensive labour. In addition, if firms carry on using the same quantity of labour, their labour costs will rise and their income (profits) will fall. For both reasons, demand for labour will fall as wages rise.



13) difference b/w economic growth n economic development

Economic Growth is the increase in the real output of the country in a particular span of time. Whereas, **Economic Development** is the increase in the level of production in an **economy** along **with** enrichment of living standards and the advancement of technology.

14) hicksian demand curve , marshallian demand curve

<https://policonomics.com/marshallian-hicksian-demand-curves/>

15) budget constraint

The **budget constraint** is the boundary of the opportunity set—all possible combinations of consumption that someone can afford given the prices of goods and the individual's income. Opportunity cost measures cost in terms of what must be given up in exchange.

16) monopolist supply curve exist or not??

A **monopoly** firm has no well-defined **supply curve** because of the fact that output decision of a **monopolist** not only depends on marginal cost but also on the shape of the demand **curve**. As a result, shifts in demand do not trace out a series of prices and quantities as happens with a competitive **supply curve**.

17) perfect competition

In a **monopolistic** market, there is only one firm that dictates the price and supply levels of goods and services. A **perfectly competitive** market is composed of many firms, where no one firm has market control. In the real world, no market is purely **monopolistic** or **perfectly competitive**.

18) what is bank?

A **bank** is a financial institution licensed to receive deposits and make loans.

19) stock market

Stock markets are where individual and institutional investors come together to buy and sell shares in a public venue.

20) macroeconomic variables

Examples of macroeconomic factors include economic outputs, unemployment rates, and inflation. These **indicators** of economic performance are closely monitored by governments, businesses and consumers alike.

21) **Pakistan growth rate**

Pakistan sets 4.8% **GDP growth** target for **2021/2022** financial year

22) **economic start?** Ans) Adam smith

23) **great depression**

The **Great Depression** was the worst economic downturn in the history of the industrialized world, lasting from 1929 to 1939. It began after the stock market crash of October 1929, which sent Wall Street into a panic and wiped out millions of investors.

24) **r square and adjusted r square??**

R-squared (R^2) is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable or variables in a regression model.

Adjusted R-squared is a modified version of **R-squared** that has been **adjusted** for the number of predictors in the model. The **adjusted R-squared** increases when the new term improves the model more than would be expected by chance. It decreases when a predictor improves the model by less than expected.

25) **coefficient of correlation b/w variations**

The coefficient of variation (CV) is a statistical measure of the dispersion of data points in a data series around the mean. The coefficient of variation represents the ratio of the standard deviation to the mean, and it is a useful statistic for comparing the degree of variation from one data series to another, even if the means are drastically different from one another.

The correlation coefficient is a statistical measure of the strength of the relationship between the relative movements of two variables. The values range between -1.0 and 1.0. A calculated number greater than 1.0 or less than -1.0 means that there was an error in the correlation measurement. A correlation of -1.0 shows a perfect negative correlation, while a correlation of 1.0 shows a perfect positive correlation. A correlation of 0.0 shows no linear relationship between the movement of the two variables.

26) **classical linear regression model**

A **linear regression model** describes the relationship between a dependent variable, y , and one or more independent variables, X . The dependent variable is also called the response variable.

According to the **classical** assumptions, the elements of the disturbance vector ε are distributed independently and identically with expected values of zero and a common variance of σ^2 .

27) **hetro, auto, multi collinety, endogeneity problem??**

heteroscedasticity (also spelled heteroskedasticity) refers to the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it.

Autocorrelation refers to the degree of correlation of the same variables between two successive time intervals. It measures how the lagged version of the value of a variable is related to the original version of it in a time series.

Multicollinearity exists whenever an independent variable is highly correlated with one or more of the other independent variables in a multiple regression equation. **Multicollinearity** is a **problem** because it undermines the statistical significance of an independent variable.

In econometrics, **endogeneity** broadly refers to situations in which an explanatory variable is correlated with the error term.

28) detect hetero problem??

One informal way of **detecting heteroskedasticity** is by creating a residual plot where you plot the least squares residuals against the explanatory variable or \hat{y} if it's a multiple regression. If there is an evident pattern in the plot, then **heteroskedasticity** is present.

29) what is data??

facts and statistics collected together for reference or analysis.

29) import export def??

Exports are goods and services that are produced in one country and sold to buyers in another. **Exports**, along with imports, make up international trade.

An **import** is a good or service bought in one country that was produced in another. **Imports** and exports are the components of international trade. If the value of a country's **imports** exceeds the value of its exports, the country has a negative balance of trade, also known as a trade deficit.

30) currency devaluation impact on import and export

The primary **effect** of **currency devaluation** is to increase the price in domestic **currency** of **exports** and **imports**, although these prices may remain unchanged in terms of foreign **currencies**. Higher domestic prices enable **exporters** to offer higher prices to producers and encourage importers to shift to domestic goods.

31) steady state of solow model

At the **steady-state**, an investment is equal to depreciation. That means that all of investment is being used just to repair and replace the existing capital stock. No new capital is being created.

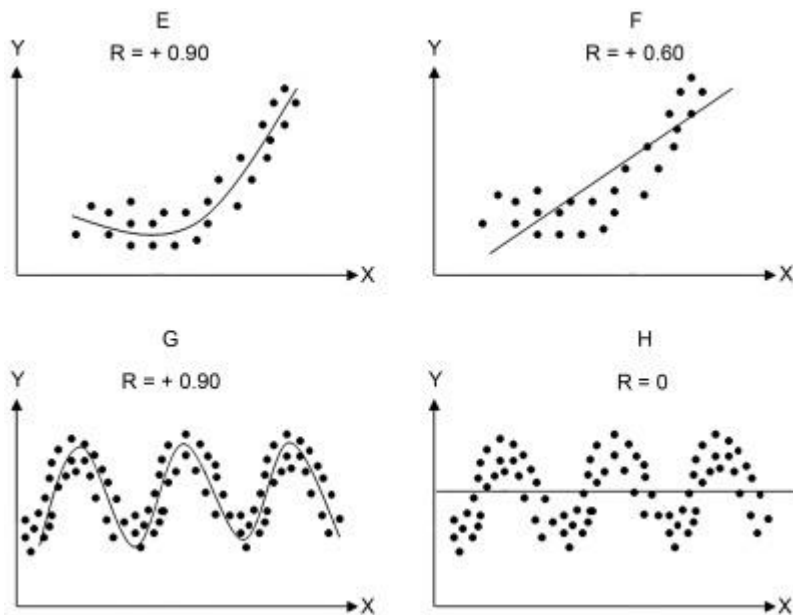
32) AK model?

The simplest version of an endogenous model is the AK model which assumes constant exogenous saving rate and fixed level of technology. The stickiest assumption of this model is that the production function does not include diminishing returns to capital. This assumption means the model can lead to endogenous growth.

33) ramsey model

The choice of consumption is explicitly microfounded at a point in time and so endogenizes the savings rate.

34) draw regression line, if $R = 0.6$



35) trade surplus

A **trade surplus** is an economic measure of a positive balance of **trade**, where a country's exports exceed its imports. **Trade Balance** = Total Value of Exports - Total Value of Imports.

36) budget deficit

A **budget deficit** happens when current expenses exceed the amount of income received through standard operations.

37) excess of demand

Excess Demand occurs when the Price of a good is lower than the Equilibrium Price, meaning more consumers will want to buy the good than suppliers are willing to sell. The difference between the Quantity Demanded (QD) and the Quantity Supplied (QS) is the **Excess Demand**.

38) fiscal policy

Fiscal policy is the means by which a government adjusts its spending levels and tax rates to monitor and influence a nation's economy. It is the sister strategy to monetary **policy** through which a central bank influences a nation's money supply.

39) Lucas critique

The **Lucas critique**, named for Robert **Lucas's** work on macroeconomic policymaking, argues that it is naive to try to predict the effects of a change in economic policy entirely on the basis of relationships observed in historical data, especially highly aggregated historical data.

40) Ricardian equivalence

Ricardian equivalence is an economic theory that says that financing government spending out of current taxes or future taxes (and current deficits) will have equivalent effects on the overall economy.

41) PCC horizontal draw budget line

Price consumption curve for a good can take horizontal shape too. It means that when the price of the good X declines, its quantity purchased increases proportionately but quantity purchased of good Y remains the same. Horizontal price consumption curve is shown in Fig.

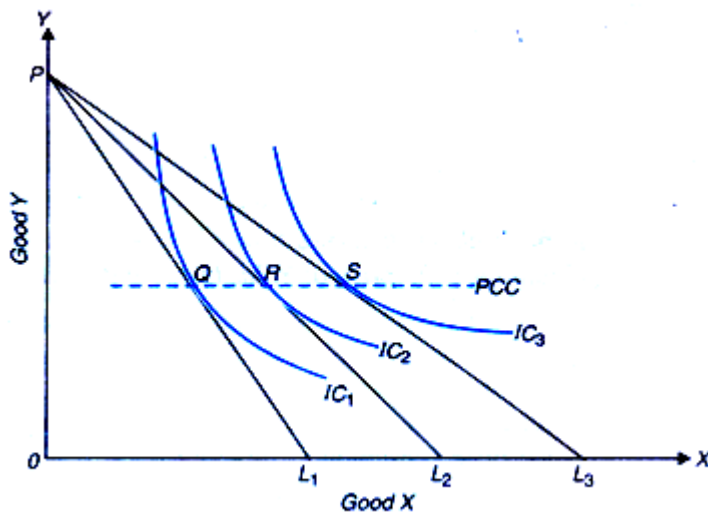


Fig.8.41. Horizontal Price Consumption Curve

42) IC concave

Concavity of the indifference curves implies that the marginal rate of substitution of X for y increases when more of X is substituted for Y. It will be clear from the analysis made below that in case of indifference curves being **concave** to the origin the consumer will choose or buy only one good.'

43) giffen P.E, S.E and I.E

A **Giffen good** is a low income, non-luxury product for which demand increases as the price increases and vice versa.

A **Giffen good** has the same affect – higher **price** leads to higher demand. But, it is for a completely different reason. A **Giffen good** occurs when a rise in **price** causes higher demand because the income **effect** outweighs the substitution **effect**.

Giffen goods are highly inferior for which the negative income **effect** outweighs the positive **substitution effect**. Therefore even though price falls, the quantity demanded still decreases.

44) oligopoly, monopolistic competition

Monopolistic Competition = A market structure characterized by a differentiated product and freedom of entry and exit. ... **Oligopoly** = A market structure characterized by barriers to entry and a few firms. **Oligopoly** is a fascinating market structure due to interaction and interdependency between **oligopolistic** firms.

45) Philips curve

The **Phillips curve** is an economic concept developed by A. W. **Phillips** stating that inflation and unemployment have a stable and inverse relationship. The theory claims that with economic growth comes inflation, which in turn should lead to more jobs and less unemployment.

46)stagflation

Stagflation is characterized by slow economic growth and relatively high unemployment—or economic stagnation—which is at the same time accompanied by rising prices (i.e. inflation). **Stagflation** can also be alternatively defined as a period of inflation combined with a decline in gross domestic product (GDP).

47)Substitution effect

The **substitution effect** is the decrease in sales for a product that can be attributed to consumers switching to cheaper alternatives when its price rises.

48)diference bw devaluation n depreciation.why money devaluated not depreciated??

A **devaluation** occurs when a country makes a conscious decision to lower its exchange rate **in a** fixed or semi-fixed exchange rate. A **depreciation** is when there **is a fall in the value of** a currency **in a** floating exchange rate.

First, **devaluation** makes the country's exports relatively less expensive for foreigners. Second, the **devaluation** makes foreign products relatively more expensive for domestic consumers, thus discouraging imports.

49)mercantalists and david home(???)

Press **Esc** to exit full screen

David Hume

- David Hume questioned mercantilist assumptions in his essays.
- He denied that money and gold were equivalent to wealth. Instead, they had merely instrumental value.

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David Hume

- He thought that accumulating precious metals would result in higher prices.
- Hume believed that imports as well as exports were beneficial.
- He suggested that trade was not equivalent to warfare, since both to the parties to the transaction benefit.

50)if $G > T$ (TAXES) GOVERNMENT BORROW OR LEND??

Deficits occur **when government spending** and transfer payments **exceed tax** revenues. **If** a person finds that they are **spending more** money **than** they have, they will either need to sell off some **of** their belongings or **borrow** money. The **government** faces the same problem.

51)ols assumption

The **Assumption** of Linearity (**OLS Assumption 1**) – If you fit a linear model to a data that is non-linearly related, the model will be incorrect and hence unreliable. When you use the model for extrapolation, you are likely to get erroneous results. Hence, you should always plot a graph of observed predicted values.

52)hetro is problem of which variable??? Ans error term

53)fiscal federalism

Fiscal federalism, financial relations between units of governments in a federal government system. **Fiscal federalism** is part of broader public finance discipline. ... **Fiscal federalism** deals with the division of governmental functions and financial relations among levels of government.

54)difference between fiscal n monetary policy

Monetary policy addresses interest rates and the supply of money in circulation, and it is generally managed by a central bank. **Fiscal policy** addresses taxation and government spending, and it is generally determined by government legislation.

55)TP curve (increasing, decreasing constant)

56)consumer, producer equilibrium

A **consumer's equilibrium** refers to the point where he or she derives maximum satisfaction by spending money on the consumption of goods and services. A **producer's equilibrium** refers to the state where the combination of price and output gives maximum profit to the **producer**.

57)wages rigidity Keynes

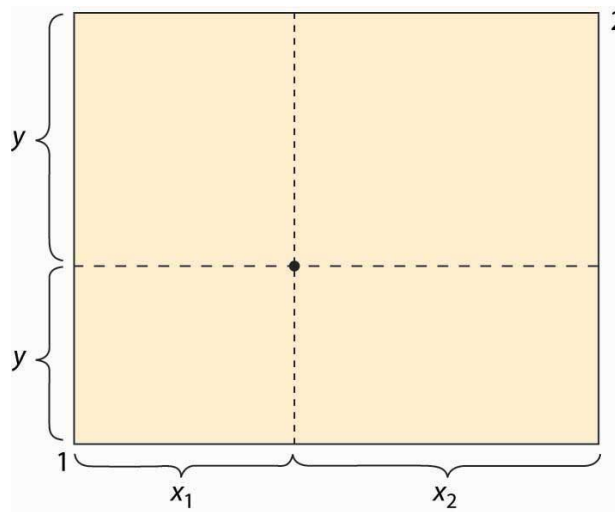
According to **Keynes**, due to money **wage rigidity**, that is, downward inflexibility of money **wages**, results in involuntary unemployment of labour. ... **Keynes** believed that money **wage** would not change sufficiently in the short run to keep the economy at full employment.

58) econometric and mathematical model

A **model** is a simplified representation of a real-world process. The **mathematical modeling** is exact in nature, whereas the statistical **modeling** contains a stochastic term also. ... An economic **model** is a set of assumptions that describes the behaviour of an economy, or more generally, a phenomenon.

59) edgeworth box

In economics, an Edgeworth box, is a graphical representation of a market with just two commodities, X and Y, and two consumers.



60) income elasticity, price and cross elasticity

We propose that the **cross price elasticity** definition be written as the impact the **price** of one good will have on the **demand** for another good in percentages, other things equal. that the **income elasticity of demand** be defined as the responsiveness of the change in **demand** to a change in **income** in percentage terms.

61) engel aggregation

The relation between the income elasticity of several goods.

62) cornut aggregation

The relation between own and cross-price effects.

63) law of return (SR)

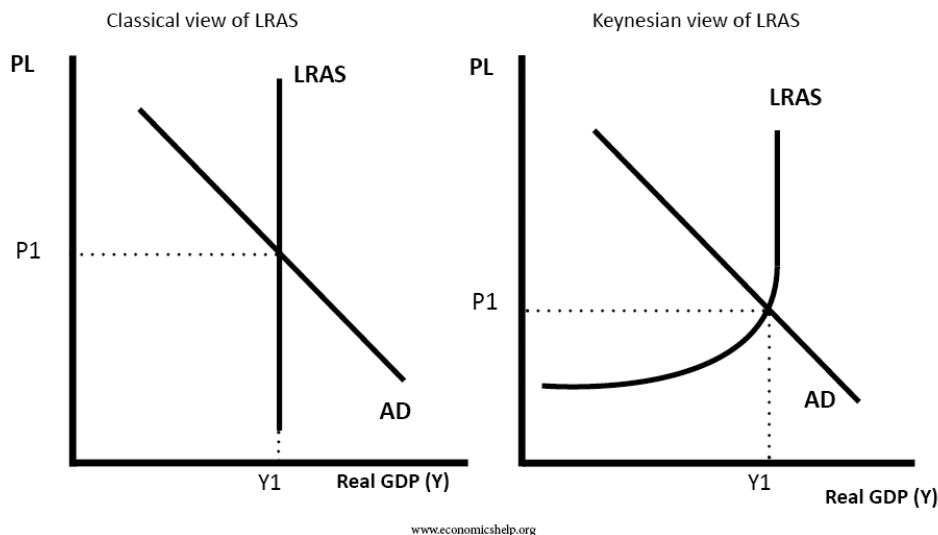
The **law** of diminishing marginal **returns** states that as the input of a factor of production increases ceteris paribus, the additional output from the last unit of input decreases. The production of goods and services requires the input of various factors of production.

64) trade deficit and budget deficit

One way to understand the connection from **budget deficits** to **trade deficits** is that when government creates a **budget deficit** with some combination of tax cuts or spending increases, it will increase aggregate demand in the economy, and some of that increase in aggregate demand will result in a higher level of imports.

65)classicals and Keynesian supply curve

The Classical view is that Long Run Aggregate Supply (LRAS) is inelastic. This has important implications. The classical view suggests that real GDP is determined by supply-side factors – the level of investment, the level of capital and the productivity of labour etc.. Classical economists suggest that in the long-term, an increase in aggregate demand (faster than growth in LRAS), will just cause inflation and will not increase real GDP>



The Keynesian view of long-run aggregate supply is different. They argue that the economy can be below full capacity in the long term.

66)law of variable proportion(LR)

The **Law of Variable Proportion** states that as the quantity of a factor is increased while keeping other factors constant, the Total Product (TP) first rises at an incremental rate, then at a decremental rate and lastly the total production begins to fall.

67)ASSUMPTION OF Perfect market

The **assumptions** of the perfectly competitive model ensure that each buyer or seller is a price taker. The **market**, not individual consumers or firms, determines price in the model of **perfect** competition. No individual has enough power in a perfectly competitive **market** to have any impact on that price.

68)three models of econometrics we have to identify which one is linear..

69)IS –LM policy effectiveness

Monetary **policy** is more **effective** if the **LM** curve is steeper. A steeper **LM** curve means that the demand for money is less interest elastic. ... On the other hand, the flatter is the **LM** curve, the less **effective** is monetary' **policy**. A flatter **LM** curve means that the demand for money is more interest elastic.

On the other hand, if the IS curve is horizontal, monetary policy is highly effective because investment expenditure is perfectly interest elastic.

70)lasperes index **Laspeyres Index** is a methodology to calculate the consumer price **index** by measuring the change in the price of the basket of goods to the base year.

71)Philips curve positive,Vertical

The long-run **Phillips curve** is a **vertical** line that illustrates that there is no permanent trade-off between inflation and unemployment in the long run.

In these macroeconomic models with sticky prices, there is a **positive** relation between the rate of inflation and the level of demand, and therefore a negative relation between the rate of inflation and the rate of unemployment. This relationship is often called the "New Keynesian **Phillips curve**".

72)econometrics definition

the branch of economics concerned with the use of mathematical methods (especially statistics) in describing economic systems.

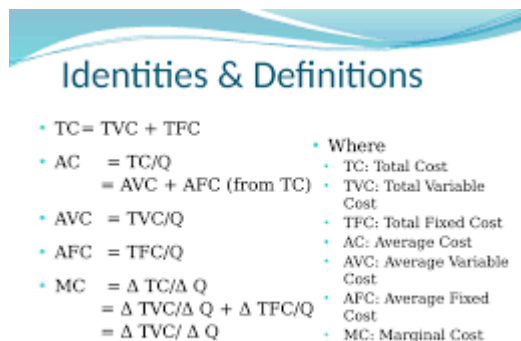
73)total factor productivity

Total factor productivity is a measure of productive efficiency in that it measures how much output can be produced from a certain amount of inputs.

74)engel curve what shows??

An **Engel curve** is a **graph** which **shows** the relationship between demand for a good (on x-axis) and income level (on y-axis). A change in income can cause a shift in demand **curve**. ... In case of a normal good, an increase in income increases demand and causes an outwards (right-ward) shift in the demand **curve**.

75)TC, AVC, MC AND FC



The slide titled "Identities & Definitions" lists various cost formulas and their abbreviations. It is organized into two columns. The left column contains formulas for Total Cost (TC), Average Cost (AC), Average Variable Cost (AVC), Average Fixed Cost (AFC), and Marginal Cost (MC). The right column, under the heading "Where", defines the abbreviations used: TC (Total Cost), TVC (Total Variable Cost), TFC (Total Fixed Cost), AC (Average Cost), AVC (Average Variable Cost), AFC (Average Fixed Cost), and MC (Marginal Cost).

• $TC = TVC + TFC$	• Where
• $AC = TC/Q$	• TC: Total Cost
• $= AVC + AFC \text{ (from TC)}$	• TVC: Total Variable Cost
• $AVC = TVC/Q$	• TFC: Total Fixed Cost
• $AFC = TFC/Q$	• AC: Average Cost
• $MC = \Delta TC / \Delta Q$	• AVC: Average Variable Cost
• $= \Delta TVC / \Delta Q + \Delta TFC / Q$	• AFC: Average Fixed Cost
• $= \Delta TVC / \Delta Q$	• MC: Marginal Cost

76)AD and AS

The **AD–AS** or aggregate demand–aggregate supply model is a macroeconomic model that explains price level and output through the relationship of aggregate demand and aggregate supply.

77)Price Discrimination

Price discrimination is the strategy of a business or seller charging different prices to different customers for the same product or service.

78)j_curve?????

79) supply curve and PC

80) BLUE?

Blue economy is a term in **economics** relating to the exploitation, preservation and regeneration of the marine environment. ... However, the term is generally used in the scope of International development when describing a sustainable development approach to coastal resources.

81) Types of economic model i.e linear, non linear and quadratic

82) GDP and GNP??

GDP measures the value of goods and services produced within a country's borders, by citizens and non-citizens alike. **GNP** measures the value of goods and services produced by only a country's citizens but both domestically and abroad. **GDP** is the most commonly used by global economies.

83) policy effectiveness

As a general matter, **effectiveness** of public **policies** can be defined as the extent to which the **policies** are achieving the benefits they are supposed to achieve plus any unanticipated side benefits.

84) CS and PS IN CASE OF TAXES

a **tax** reduces the quantity traded, thereby reducing some of the gains from trade. **Consumer surplus** falls because the price to the buyer rises, and producer **surplus** (profit) falls because the price to the seller falls.

85) OKUN'S LAW

Okun's law is the relationship between an economy's unemployment rate and its gross national product (GNP)

86) TREND OF MRS

- Marginal rate of substitution is the willingness of a consumer to replace one good for another good, as long as the new good is equally satisfying.
- Marginal rate of substitution is the slope of the indifference curve at any given point along the curve and displays a frontier of utility for each combination of "good X" and "good Y."
- When the law of diminishing MRS is in effect, the MRS forms a downward, negative sloping, convex curve showing more consumption of one good in place of another.

87) Real and nominal income

Real and Nominal Income

- Real Income: Nominal Income
- It is the value at the current prices
- Nominal Income:
 - It is value at constant prices
 - (Prices prevailing in the chosen base year)

88) demand curve is steeper n flatter, which is more elastic

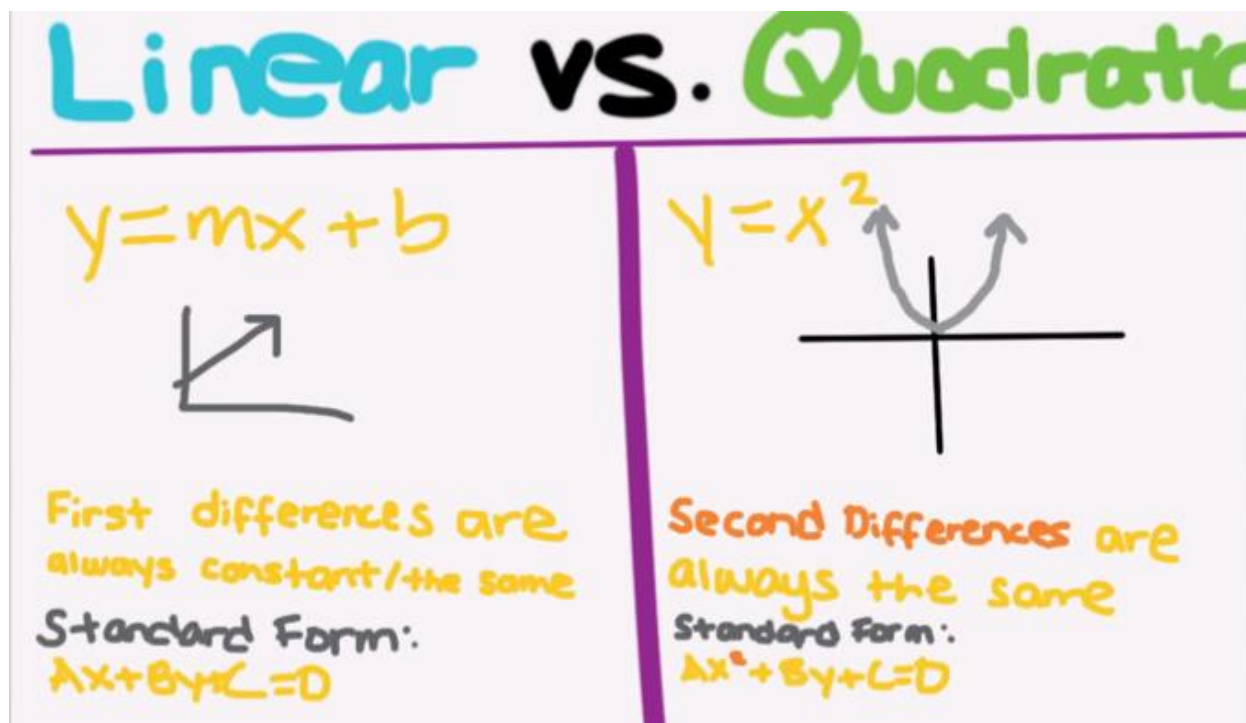
Elasticity affects the slope of a product's **demand curve**. A **greater** slope means a **steeper demand curve** and a **less-elastic** product. ... Clearly, the **flatter demand curve** shows a much **greater** quantity demanded response to a price change. Therefore, it is **more elastic**.

89) IC of perfect substitutes

If two goods X and Y are **perfect substitutes**, the indifference curve is a straight line with negative slope.

90) equation of auto

91) linear n quadratic equation



92) range

The Range is the difference between the lowest and highest values.

93) discount rate

Discount rate, also called rediscount **rate**, or bank **rate**, interest **rate** charged by a central bank for loans of reserve funds to commercial banks and other financial intermediaries.

94)SD and variance time series panel data

95)how to read digits after decimal

we read individual digits after decimal separately.

96)relate Philips curve with AD and AS

As **aggregate demand** increases from AD1 to AD4, the price level and real GDP increases. This translates to corresponding movements along the **Phillips curve** as inflation increases and unemployment decreases. As more workers are hired, unemployment decreases.

97)CONSUMPTION THEORY

In their studies of **consumption**, **economists** generally draw upon a common theoretical framework by assuming that consumers base their expenditures on a rational and informed assessment of their current and future **economic** circumstances.

98)TYPES OF market

The five major **market** system **types** are Perfect Competition, Monopoly, Oligopoly, Monopolistic Competition and Monopsony.

99)liquidity trap

A **liquidity trap** is a contradictory economic situation in which interest rates are very low and savings rates are high, rendering monetary policy ineffective.

100)auto kis ka problem hai??

101)IS LM derive n shifting n rotating factors of both??

In the **derivation** of the **IS curve** we seek to find out the equilibrium level of national income as determined by the equilibrium in goods market by a level of investment determined by a given rate of interest. Thus **IS curve** relates different equilibrium levels of national income with various rates of interest.

The **LM curve** can be derived from the Keynesian theory from its analysis of money market equilibrium.

The **LM curve**, the equilibrium points in the market for money, **shifts** for two reasons: changes in money demand and changes in the money supply.

Factors that **shift** the **IS curve**: **Factors** which will increase or decrease the level of saving or investment changing the equilibrium level of interest rate for each level of income. For example an increase in wealth causes desired savings to fall at every level of income.

102)golden rule of solow model

In economics, the **Golden Rule** savings rate is the rate of savings which maximizes steady state level of the growth of consumption,

103)`give presentation on yr fav topic

