NEXT IAS

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(To be filled by candidate)

Name of Candidate : Vaibhav Rathore

Roll No. : ECFC 2213004

Registration Number : NIAS 2200005648 **Date of Examination :** 23/07/22

Exam Centre : Old Rajinder Nagar ☐ Online ☑

CSE (Main) Test Series - 2022

Test-2

ECONOMICS OPTIONAL

International Economics/Growth and Development

Time Allowed : Three Hours **Maximum Marks :** 250

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

*There are **EIGHT** questions divided in two Sections and printed in ENGLISH.*

*Candidate has to attempt **FIVE** questions in all.*

***Question Nos. 1 and** 5 are compulsory and out of the remaining, **THREE** are to be attempted choosing at least **ONE** form each Section.*

The number of marks carried by a question/part in indicated against it.

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in a medium other than the authorized one.

Word limit in questions, wherever required, may be drawn/given in the space provided for answering the question itself.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even in attempted party. Any page or portion of the page left blank in the question-cum-Answer Booklet must be clearly struck off.

(For filling by Examiners only)

Q. No.	Page No.	Max. Marks	Marks	Total	Signature
1.(a)	4	10			
1.(b)	6	10			
1.(c)	8	10			
1.(d)	10	10			
1.(e)	12	10			
2.(a)	14	20			
2.(b)	18	15			
2.(c)	21	15			
3.(a)	24	15			
3.(b)	27	20			
3.(c)	31	15			
4.(a)	34	15			
4.(b)	37	20			
4.(c)	41	15			
5.(a)	44	10			
5.(b)	44	10			
5.(c)	44	10			
5.(d)	44	10			
5.(e)	44	10			
6.(a)	54	20			
6.(b)	58	20			
6.(c)	62	10			
7.(a)	64	20			
7.(b)	68	10			
7.(c)	70	20			
8.(a)	74	20			
8.(b)	78	15			
8.(c)	81	15			
Grand Total					

Remarks

Observations:

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SECTION 'A': INTERNATIONAL ECONOMICS

Answer the following questions in about 150 words: (10 × 5 = 50)

1. (a) What is the implication on direction of income distribution in case of Factor Intensity Reversal? (10)

In case of Factor intensity Reversal (F-I-R.) a Labour abundant country Produces a given commodity (say, X) with Labour intensity. while, capital abundant Country Produces X with capital intensity. Under F.I.R, the basic Premise of H-O Model fails.

F.I.R. is Possible for a commodity when the Elasticity of Substitution for factors of Production is higher. That is, one factor can be easily replaced with another factor of Production.

In this case, the relative factor Price Equalisation Theorem fails. Because, $\left(\frac{w}{r}\right)$ ratio in Both the nations can never converge.

Because, even if nation 2 Produces commodity Y with Labour intensity than $\left(\frac{w}{r}\right)$ ratio will rise in country 2 which was already higher than

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$\left(\frac{w}{r}\right)$ ratio of Country 1.

Thus, under no circumstances

$$\left(\frac{w}{r}\right)_{\text{country 1}} = \left(\frac{w}{r}\right)_{2}$$

Therefore, the direction of income distribution is that the income distribution further diverges and factor price equalisation does not holds true.

Empirical Evidence of F.I.R.

↳ Minhas found it fairly Prevalent & found F.I.R. operational in 33% of the cases. Leontief found a data bias in Minhas's study & his results showed that F.I.R. exists in only 8% of cases. However, Leith Krauss asserted that if 2 out of 13 industries are removed & natural resources are not considered then F.I.R will reduce to meagre 1% of cases.

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(b) How a mutually beneficial trade between two nations can be explained in case of increasing returns to scale, assuming the two nations is identical in every respect? (10)

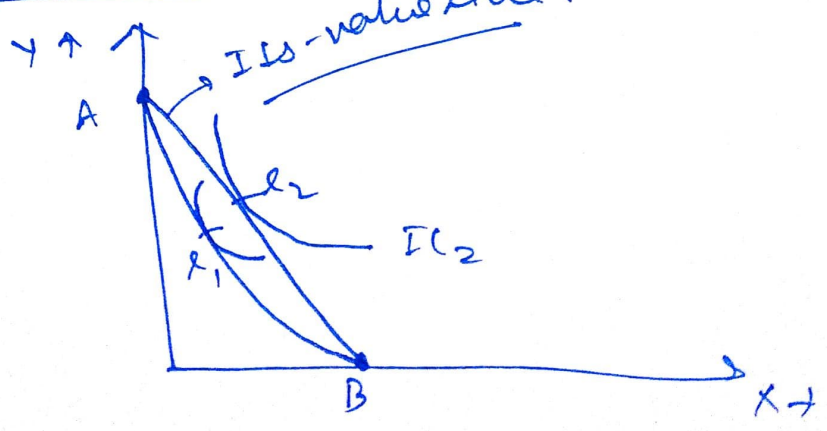
The mutually beneficial trade in the given situation can be explained through Lindahl's model of Modern International trade theory.

Assumptions :-

1. Economies of Scale - Increasing Returns to Scale (I.R.S.)
2. Economy has identical Tastes & Preferences & identical level of technology.
3. Identical Production Possibility Curve (PPC)

In this case, the PPC is convex to the origin due to diminishing marginal opportunity cost.

Also, this model focuses on the Complete Specialization.



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Since, there is a complete specialization so one country will entirely produce only commodity x & another one will entirely produce commodity y leading to straight is o value line.

Initially, economy has equilibrium at E_1. (Situation in Autarchy - No trade taking place).

with opening up of trade, the eqbm shifts from E_1 to E_2. And this shows the gains from trade.

Analysis :-

(1) Any country can specialise in any commodity. (Unlike H-O model where commodity specialises in ~~intensive~~ commodity using abundant factor of production more intensively).

(2) Countries can have natural monopoly (i.e. AC curve is downward sloping for a long range of output) due to I.R.S.

(3) If a country has domestic market for a given commodity, then it is easier to specialise in that commodity. This can explain intra-industry trade.

(c) Explain Rate of Effective Protection. (10)

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Candidates must not write on this margin

(d) Explain the impact of tariff in a small country using general equilibrium framework. (10)

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Small country is defined on the basis of volume of trade. If volume of trade (& value of trade) taking place from a country is lesser than it is considered a small country. Since, its a small country, so any changes in it will not impact the world Price ratio. [$\frac{P_x}{P_y}$ remains constant]

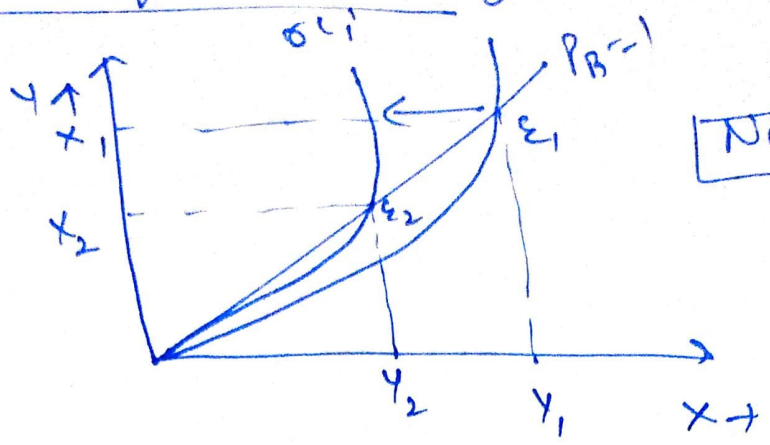
Considering, Nation I as Labour abundant such that it Produces more of Labour intensive commodity X. Also, nation I is a small country.

Imposition of Tariff will increase the Price of imported commodity Y. This results in $\frac{P_x}{P_y}$ falling in the domestic market.

However, Government will redistribute the tariff collected for the welfare of the economy to keep Price ratio constant. Producers in the domestic economy will be incentivised to increase the Production of Y as tariff is imposed making it costlier for importers.

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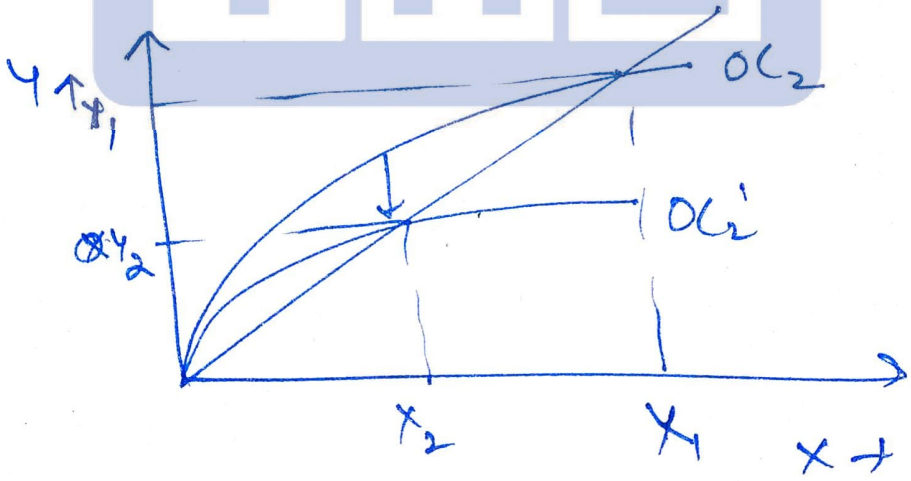
General Equilibrium :-



Nation 1

with imposition of tariff trade is restricted and the OC_1 curve shifts inward to OC_1' such that Eqb^{m} shifts from E_1 to E_2. The quantity traded falls from X_1 to X_2 & Y_1 to Y_2.

Thus, there are gains in Terms of Trade [T.O.T. gains]



In case Nation 2 is a small country.

(e) Explain the policy issues in case of Keynesian Open Economy. (10)

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The components of Aggregate Demand in case of Keynesian Open Economy are :-

① Consumption : $C = \bar{C} + c(1-t)Y$

② Investment Demand : $I = \bar{I} - bi$

③ Government Expenditure : $G = \bar{G}$

④ Net Exports : $NX = X - M$

X → Exports, M → Imports

$\boxed{X = \bar{X}}$; $\boxed{M = \bar{M} + mY}$

m → Marginal Propensity to import (m.p.i)

In case of Open Economy : $\boxed{mpc + mps + mpi = 1}$

$\Rightarrow AD = \underbrace{\bar{C} + c(1-t)Y}_{C} + \underbrace{\bar{G}}_{G} + \underbrace{\bar{I} - bi}_{I} + \underbrace{\bar{X} - \bar{M} - mY}_{NX}$

$\Rightarrow AD = \bar{A} + c(1-t)Y - bi - mY$

where, $\boxed{\bar{A} = \bar{C} + \bar{G} + \bar{I} + \bar{X} - \bar{M}}$

At equb^{m} : $\boxed{Y = AD}$

$\Rightarrow Y[1 - c(1-t) + m] = \bar{A} - bi$

$\Rightarrow Y^* = \frac{1}{1 - c(1-t) + m} [\bar{A} - bi]$

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$$\Rightarrow \boxed{\frac{dy^*}{d\bar{A}} = \frac{1}{1-c(1-t)+m}}$$

(a) Clearly, $\alpha_{(a)} < \alpha_{(b)} = \left(\frac{1}{1-c(1-t)}\right)$

$\alpha_{(a)}$: In case of open economy. | $\alpha_{(b)}$: In case of closed economy.

Policy Issues in case of open economy:-

(1) Due to any given fiscal & monetary change, the output will change & that leads to change in imports only while keeping exports unchanged, as it is considered as autonomous. Thus, fiscal & monetary interventions are ineffective in changing exports.

(2) The value of government expenditure/ Autonomous expenditure Multiplier is reduced to Imports acting as an additional tool to release output from circular flow.

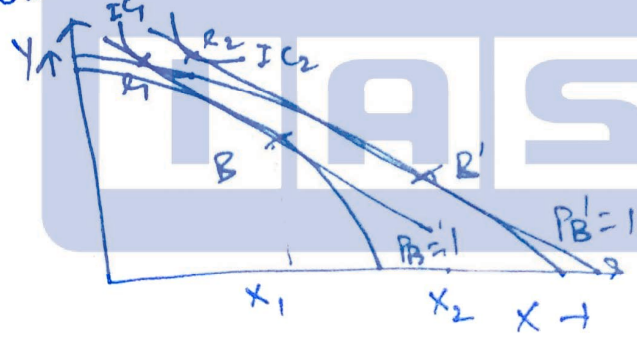
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2. (a) "Trade is always growth promoting." Do you agree? Substantiate your arguments on the basis of established theories. (20)

Trade is considered as pro-growth (growth promoting) when due to opening up of the trade, the production of exportables rises and consumption of Importable rises.

In this case the Terms of Trade worsens because at same Price ratio, the volume traded rises.

In case of small & Big countries with opening up of trade, using Rybczynski Theorem we can show that trade leads to growth.

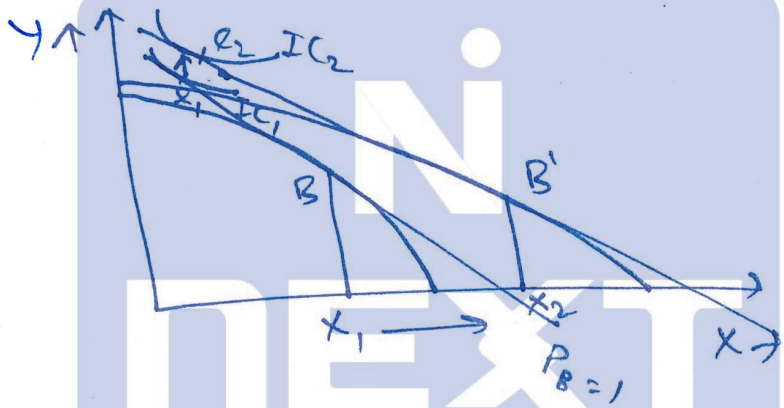


The above diagram represents a case of small country. Initially country produces at point B such that $P_B = 1$ & Eqbm takes place at R_1. With opening up of trade, PPC shifts (with more Proportional shift in X than Y) & Eqbm takes place at R_2, while country specialises at Point B' with $P_{B'} = 1$ (since, it is a small country so Price ratio remains same)

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Production of exportable X ↑es from X_1 to X_2. While, consumption of Y rises from C_1 to C_2. Thus, overall growth takes place in the economy after trade. (TOT worsens)

Similarly, in case of a ~~for~~ large country the trade leads to higher IC & more production.



However, Prof. Jagdish Bhagwati gave the idea of immiserising growth in case of a large country. Acc. to Prof. Bhagwati, in case of a large country, with opening up of the trade there are 2 simultaneous effects :-

① Negative T.O.T. (Terms of Trade) effect

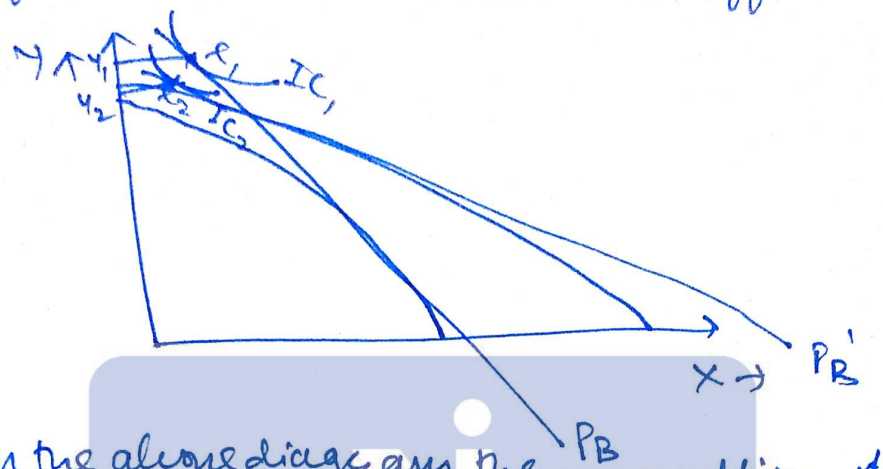
&

② Positive output/volume effect on welfare.

He asserted that it may be possible that the negative T.O.T effect dominates

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Positive volume effect, leading to overall negative effect on welfare. That is, T.O.T. effect immiserises the volume effect.



In the above diagram the consumption of Y falls from Y_1 to Y_2 as the IC curve is on lower side. [IC_2 is below IC_1].

This shows a negative effect due to growth.

There are 4 conditions when Immiserising growth have more chances to take Place:-

(1) Elasticity of Income for rest of the world is lesser than the given country.

(2) Country is too large, such that negative T.O.T. effect has larger impact on it.

(3) Country has strong dependency on trade.

(4) ~~fdsout~~At same Price ratio, trade becomes more.

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However, in real world the empirical evidence is weak.

But, if growth takes place in scarce factor of Production after trade, then such a trade will always be growth Promoting.

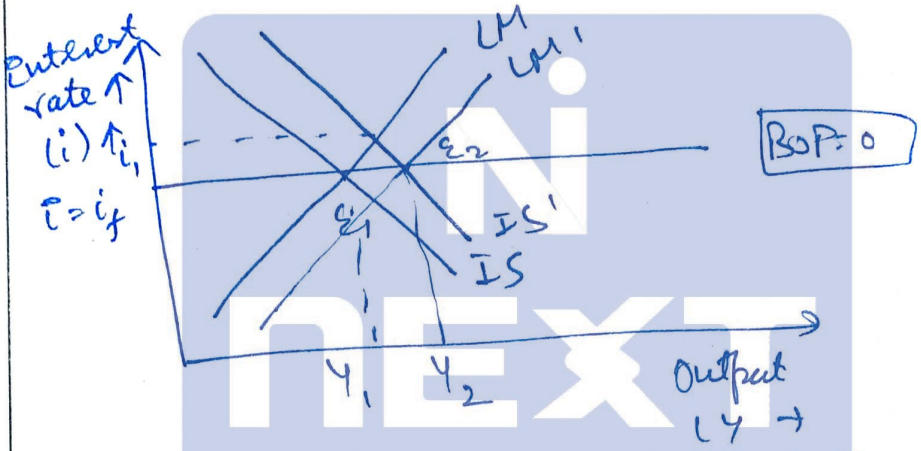


(b) In an open economy, with high capital mobility, fiscal management is as best as doing nothing. Do you agree? (15)

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In case of an open economy, are fiscal Policy can be effective in the short run under ~~the~~ 2 situations :-

① when there is a fixed exchange rate regime and the fiscal interventions are done.

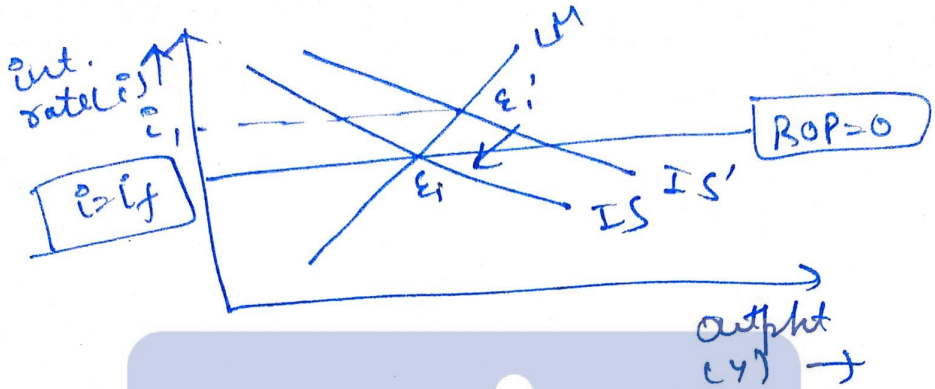


With an expansionary fiscal Policy, IS shifts to IS'. Interest rate rises to i_1 such that there is more capital inflow & currency has a pressure to revalue. However, Central Bank will ease such a pressure by increasing the money supply in the economy, that is by selling ₹ & buying $.

This results in LM shifting to LM'. Due to this eqbm is at E_2 such that output rises to Y_2 ($\uparrow Y_1$) & there is no crowding out.

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However, in case of flexible exchange rate there is no impact of fiscal policy even in the short run.



with shift of IS', the currency will appreciate in this case. This results in making exports costlier & imports cheaper. Due to this the Aggregate demand falls (As NX ↓es). Thus IS' will keep shifting downward to come back at IS such that Equilibrium is again at E_1.

Thus, there is no change in output in this case.

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(c) Devaluation of currency is a conditional policy instrument to increase exports. Analyse. (15)

Theoretically, Devaluation of the domestic currency leads to more exports & less imports. Because, with devaluation the Price of commodity in the domestic market becomes relatively cheaper (exports are cheaper) while the Price of commodity in the foreign market becomes relatively costlier (imports are costlier).

Sometimes, countries deliberately keep their currency undervalued and use this Policy measure to ↑se their exports

In case of fixed exchange rate system, it was easier to manipulate the exchange Rate as the Central Banks of the country were free to set their own exchange Rate.

Although, this Practice has been restricted in the current regime of flexible exchange rate, but still the Central Banks increases their money supply & keep lesser interest rate

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to make their currency depreciate & thus ↑ their exports. Thus, they compete in the foreign market at the cost of their trading Partners. Thus, this is also known as Beggar Thy Neighbour Policy.

Recently, with tightening of Monetary Policy by Fed Reserve, there is a huge capital outflow from domestic markets leading to depreciation of domestic currency.

Experts view this as an opportunity to focus on export led growth which will itself stabilise the exchange rate movement.

However, devaluation is not the only measure & is just a conditional measure. Because, in real world exports growth will depend on multiple factors such as:-

1. Ease of doing Business environment in the country
2. Simplicity of Labour Laws
3. IPR Regime
4. Land Acquisition Laws, Environmental Laws, Legal facets.

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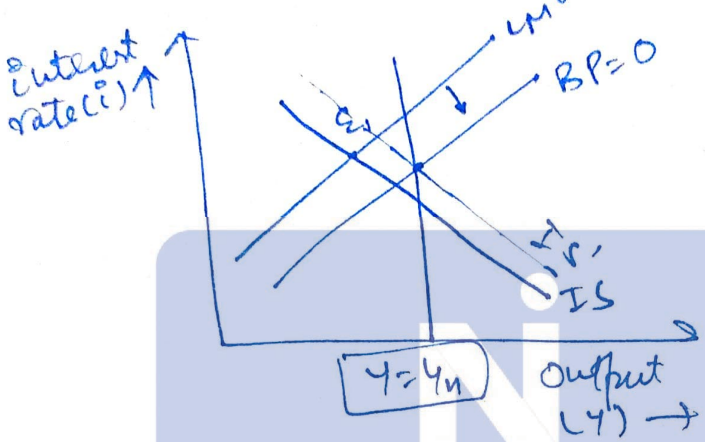
Thus, there is a need to undertake structural reforms so as to reap the benefits of devaluation by promoting exports & using this as a tool to naturally stabilise exchange rate, without any forex drain (intervention by Central Bank, where it sells $ & buys ₹ to appreciate the currency).

NEXT IAS

4. (a) How does an economy reach full employment level of output if it is presently facing unemployment in a flexible exchange rate system and imperfect capital mobility? (15)

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In Case of Imperfect-K Mobility the BOP=0 curve is upward sloping.



In case of unemployment IS & LM curve intersects to the left of Y=Yn line.

If they intersects above BP=0 schedule then this represents BOP surplus.

In case of Surplus & unemployment :-

IS & LM intersects at E_1.

The economy needs Expansionary Monetary & Expansionary fiscal Policy to reach Equilibrium in case of flexible exchange rate.

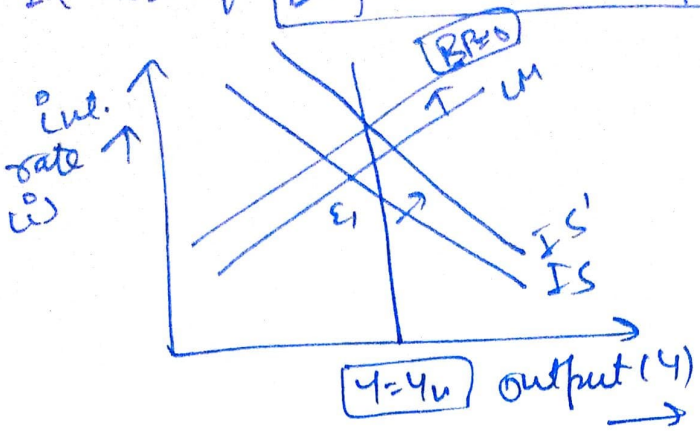
This results in IS' & LM' intersecting at E_2 such that Y=Yn → Internal eqbm

&

BP=0 → External eqbm.

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In case of **Deficit & Unemployment** :.



Initially IS & LM intersects at E_1 such that E_1 is to left of $Y = Y_n$ & below BP=0 schedule.

In this case, economy needs expansionary fiscal & contractionary Monetary Policy to reach Eq^{mm}.

IS shifts to IS' & LM shifts to LM' such that $\begin{pmatrix} Y = Y_n \\ \& \\ BP = 0 \end{pmatrix}$ & hence Eq^{mm} is achieved after ~~long-run~~ adjustment.

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(b) Explain Salter Swan diagram. Define the zones of equilibrium and disequilibrium. What policy prescriptions would you suggest for the situations pertaining to unemployment and inflation vis a vis BOP deficit. (20)

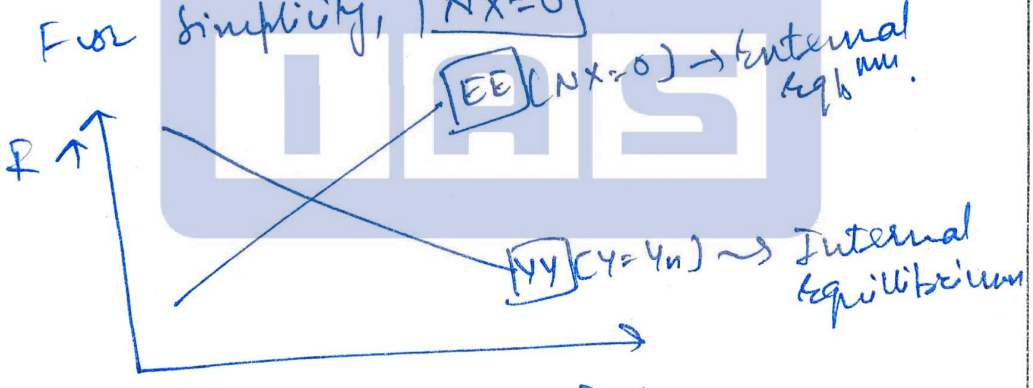
Salter Swan diagram (S-D) represents the relationship between Real Exchange Rate (R) & Absorption Capacity (D) of the economy such that there exists external & internal equilibrium.

Internal Equilibrium ⇒ Output (Y) is at natural rate of Output (Y_n)

$$Y = Y_n$$

External Equilibrium ⇒ Net Exports (NX) = Constant.

For simplicity, $NX = 0$



Absorption Capacity: $D = C + G + I$

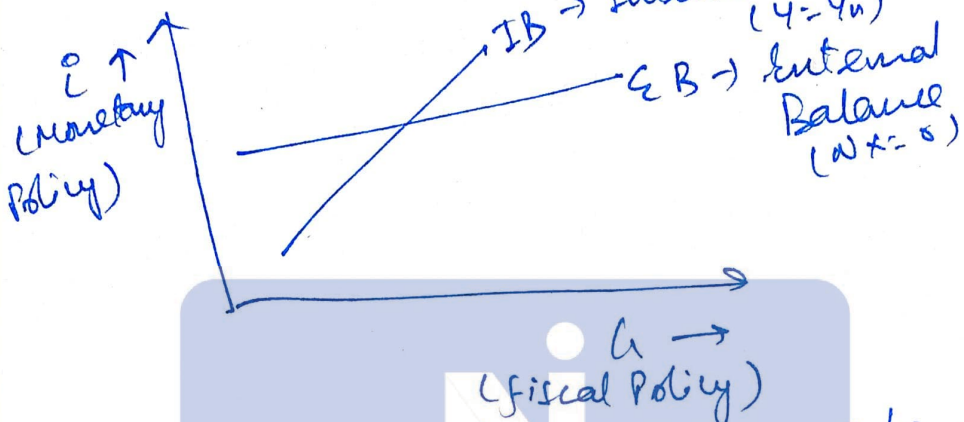
Defining Zones of Equilibrium :-

Equilibrium is said to exist in Salter Swan case, when $Y = Y_n$ & $NX = 0$

A simplified version of S-D can be represented in a graph representing

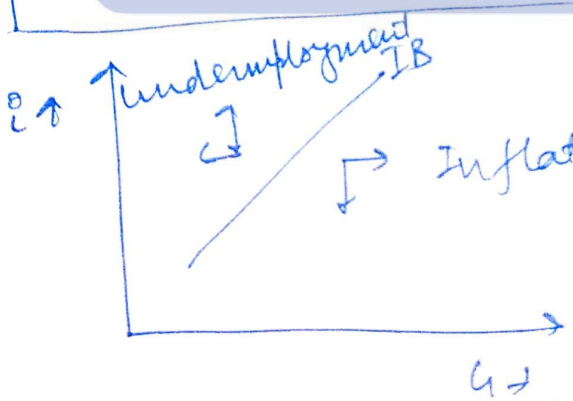
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interest rate (Monetary Policy) & Government Expenditure (fiscal Policy) to define the Zones of Equilibrium & disequilibrium.



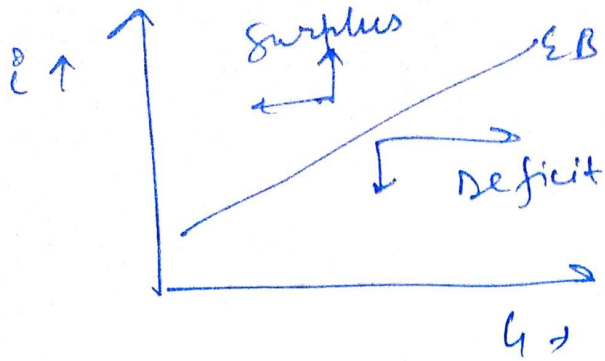
EB curve is steeper than IB curve because it is affected by both domestic & foreign investments.

i ↑ se →	Contractionary	Monetary Policy
i ↓ se →	Expansionary	" "
G ↑ se →	Expansionary	fiscal "
G ↓ se →	Contractionary	" "



Points to the right/downwards of IB curve represents Inflation [as, Y > Yn].
& Points to the left/upwards of EB IB curve represents underemployment (Y < Yn).

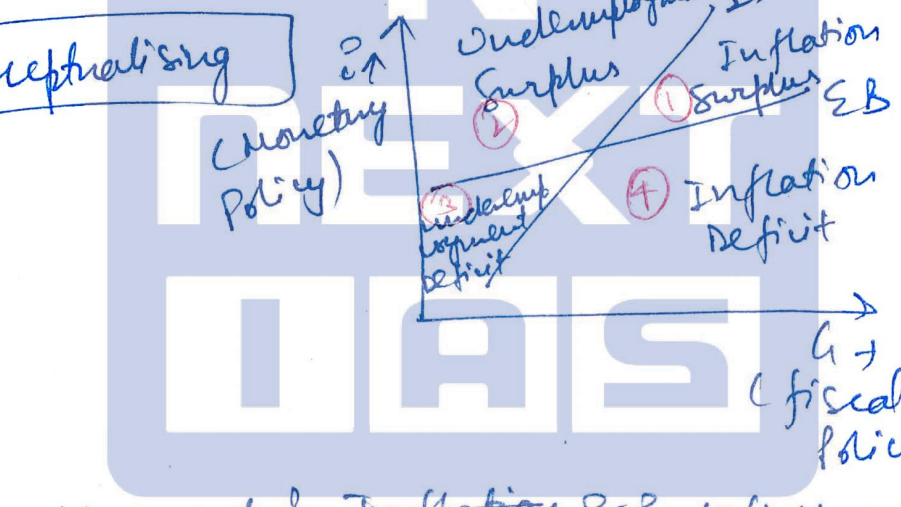
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Points above/left of EB represents BOP surplus as due to higher interest rate at same level of G there is higher capital inflow.

Similarly, Points to the right/below EB represents BOP deficit.

Conceptualising



Unemployment & ~~Inflation~~ BOP deficit represented by Zone 3. ↑ interest rate needs to ↑se and Govt. Expenditure also needs to ↑se

⇒ Contractionary Monetary + Expansionary fiscal Policy is required to reach Eqbm.

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Inflation & BOP deficit is represented by Zone 4 in the given diagram.

→ ↑ se & ↓ tse for achieving eqbm.

∴ Contractionary fiscal & Contractionary monetary policy is required for eqbm.

(c) Critically examine Hecksher Ohlin Model. (15)

Candidates must not write on this margin

Assumptions :-

1. 2 countries - 1 & 2
2. 2 commodities - X & Y
3. 2 factors of Production - Labour (L) & Capital (K)

$Q^1_x = f(L^1_x, K^1_x)$; $Q^1_y = f(L^1_y, K^1_y)$

$Q^2_x = f(L^2_x, K^2_x)$; $Q^2_y = f(L^2_y, K^2_y)$

4. Country 1 → Labour Abundant [$w < r$]

   Country 2 → Capital Abundant [$w > r$]

   where, w → Wage rate

   r → rental cost of capital.

5. Commodity x → Labour Intensive $\left[\frac{K}{L} < 1\right]$

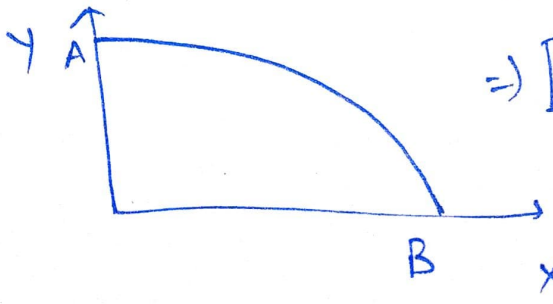
   Commodity y → Capital Intensive $\left[\frac{K}{L} > 1\right]$

6. Trade between 2 Nations is Balanced.

   ⇒ Import of country 1 = Export of 2

   & Import of 2 = Export of 1.

7. Diminishing Productivity of factors of Production (Diminishing MP_L & MP_K)



⇒ Concave PPC

↓

Production Possibility curve (represented by AB)

8. Identical Preferences in both the Nations.

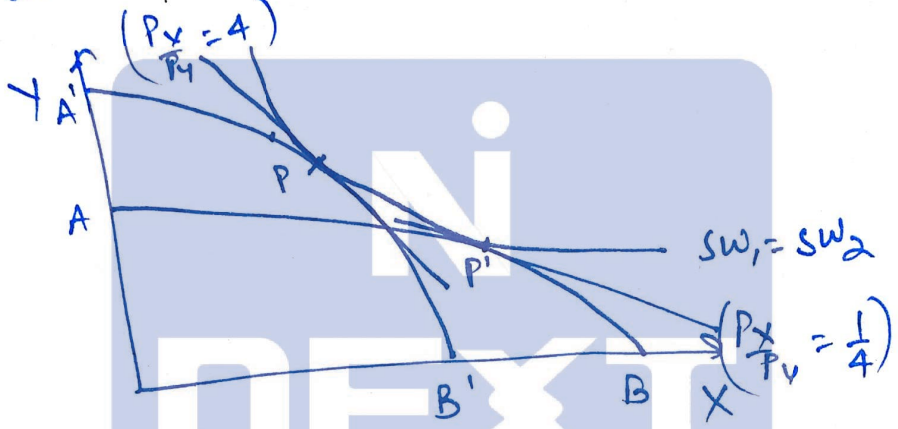
   ∴ They have same Social indifference curve. [$SW_1 = SW_2$]

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(9) All resources are fully utilized at a given level of technology.

(10) Incomplete Specialisation

Since, country 1 is Labour abundant so it will be producing more of X (Labour intensive) commodity & less of Y. Similarly, country 2 Produces more of Y (K-intensive) & less of X



AB → PPC for country 1

A'B' → PPC for country 2.

P & P' shows Points during Autarchy.

Initially, let us assume that $\left(\frac{P_X}{P_L}\right)_{country\,1} = \frac{1}{4}$

& $\left(\frac{P_X}{P_L}\right)_{country\,2} = 4$.

Now, trade opens up. Country 1 Produces more of X, demand of Labour rises ⇒ $\left(\frac{w}{r}\right)$ increases

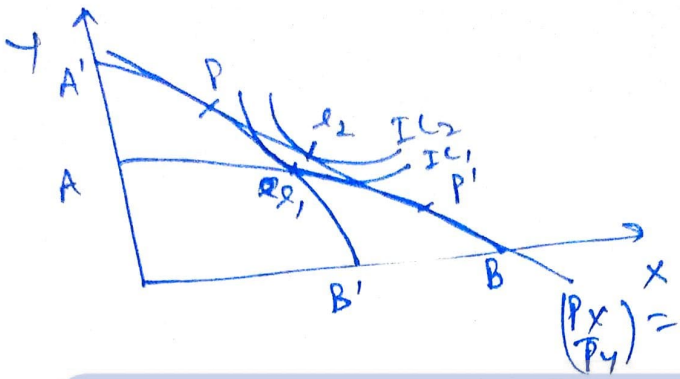
∴ $\left(\frac{P_X}{P_L}\right)$ increases

Similarly, country 2 Produces more of Y, demand of Capital rises ⇒ $\left(\frac{w}{r}\right)$ falls

∴ $\left(\frac{P_X}{P_L}\right)$ falls.

Candidates must not write on this margin

Let us assume that after trade equilibrium takes Place at Price ratio $\left(\frac{P_X}{P_Y}\right) = 1$.



→ After Trade, Country 1 Produces at P' & Country 2 Produces at P. ~~Free~~ Trade Makes Both the nations better off, as now they are on higher IC. [IC_2 compared to IC_1]
$l_1 \to l_2$ represents gains from trade.

→ Country 1 exports ~~wood of~~ X ; Country 2 exports Y [Abundant factor → nation ~~imports~~ exports commodity using that factor of Production more intensively].

→ Scarcer factors lose while abundant factors gains.

Criticisms :- ① Leontief Paradox in the context of US Economy [Observed that US exports are 30% more Labour intensive than US imports, despite US being a K-abundant nation].

② Factor Intensity Reversal (F.I.R.) - H-O Model fails.
[Minhas Observed F.I.R. fairly Prevalent in 33% of Cases studied]

Candidates must not write on this margin

SECTION 'B' : GROWTH AND DEVELOPMENT

5. **Answer the following questions in about 150 words:** (10 × 5 = 50)

(a) The rural areas in India have witnessed more of the centripetal effect than centrifugal effect of growth in India. Critically analyse. (10)

(b) Environment degradation is also the result of low level of development along with absence of market. Explain. (10)

(c) What is "Solow residual"? What are its implications? (10)

(d) Analyse the role of linkages in Unbalanced growth theory. (10)

(e) How can the problem of Harrod's instability be solved? (10)

Ans 5

(a) In Indian context, the backwash effect dominates rather than the Spread effect. This implies that the growth is focussed only around the core areas (Urban Areas, coastal areas) rather than the Rural areas (Peripheri).

Arguments for Centripetal Effect

(1) Most of the industries & service sector firms are located in Urban Areas. This pulls Labour & Investment towards them.

(2) Government Policy focus has been mostly around Urban Zones & Coastal Areas. The Majority of Infrastructure Creation, technological diffusion has taken Place around these areas.

(3) Entrepreneurs focuses on establishing industrial Presence in Urban Areas due to better connectivity & Proximity to Market.

Candidates must not write on this margin

Arguments for Centrifugal Effect

① Most of the Agricultural Activities are undertaken in Rural Areas. This is due to the Presence of Cheap Labour & Arable Land. Agriculture has been the most consistent sector which showed a positive growth rate even during the Pandemic.

② Food Processing Industries are mostly clustered around Rural Areas due to Proximity with Raw Material Providers.

Way Forward

① Government Policies needs to focus on developing entrepreneurship in Rural areas through infrastructure Presence, better connectivity, initiatives on Investment, Tax Holidays, etc.

② There is a need to focus on Inter-Sectoral & Inter-geographic equity such that Spread Effect Leads to higher Investment, Employment & better technology in Rural Economy helping it to grow via Multiplier Effect -

Candidates must not write on this margin

Ans (Q6)

Environment degradation is a major concern in current times. There is a debate between Economic growth & Environment Sustainability. Both are often seen as conflicting, however several Policy Papers has shown that both of them are infact complementary to each other.

There is a need of inclusive growth & Sustainable development.

Reasons for Environment degradation :-

(A) Low Level of development

(1) Use of inefficient & older technology leads to more Emissions & hence more degradation.

(2) Lack of Investment in Renewable Energy such as Solar, Wind, Hydrothermal, etc. results in over-reliance on conventional fossil fuels such as coal, Petroleum, etc.

(3) Lesser Investment in new market segments due to higher Capital requirement in markets such as that of Electric Vehicle.

Candidates must not write on this margin

(B) **Absence of Market**

(1) In underdeveloped & developing economies & to some extent even in developed economies, the Carbon Credit Trading system is sub-optimal & even completely absent.
This leads to no incentive for reducing emissions.

(2) Lack of entrepreneurship in newer technological innovation. Also, Monopoly exists in sectors such as oil & gas which results in over-exploitation of Natural resources.

Way forward

(1) Promote Investments in R.E. so as to achieve SDG ~~goa~~ Goals & Commitments made by countries under COP-26.

(2) Need for an interconnected Emission Trading System.

Candidates must not write on this margin

Ans 5(a)

Solow's Model

Assumptions:- (1) The Production function exhibits constant Returns to Scale (C.R.S.) & Diminishing returns to factor (D.R.F).

$$Y = AL^{\alpha}K^{\beta} \rightarrow \text{(Production fn.)}$$

(2) Constant Capital - Labour ($\frac{K}{L}$) ratio

$\Rightarrow \frac{K}{Y}$ & $\frac{L}{Y}$ are also constant.

(3) No growth in Labour & Technology.

(4) Depreciation of Capital at rate 'δ'.

However, if technological growth is considered and Technology is assumed to grow at 'π' per annum, ~~then~~ and also Labour force grows @ 'n' p.a. then the Solow's equation will be: $\Delta k = s.y - (\delta + n + \pi)k$.

$$\Rightarrow \boxed{\Delta k = s.f(k) - (\delta + n + \pi)k}$$

Here, 'π' represents Solow's residual which ~~represents~~ shows the impact of technological growth in case of Solow's Model.

Candidates must not write on this margin

Without growth in Labour & Technology:-

$i = \Delta k = s \cdot f(k) - \delta k$

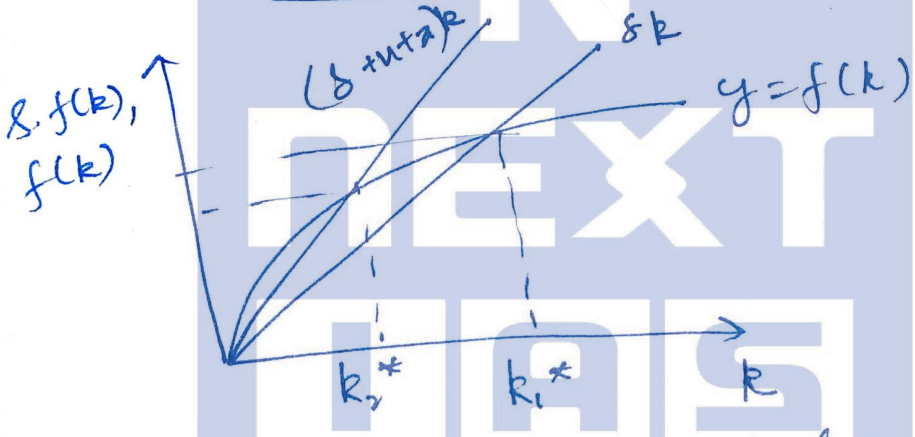
$\Rightarrow s \cdot f(k) = \delta k$

$\Rightarrow \boxed{\frac{f(k)}{k} = \frac{\delta}{s}}$ → Solow's eqn

Considering growth in Labour & Technology:-

$i = \Delta k = s \cdot f(k) - (\delta + n + x)k$

$\Rightarrow \boxed{\frac{k}{f(k)} = \frac{s}{(\delta + n + x)}}$



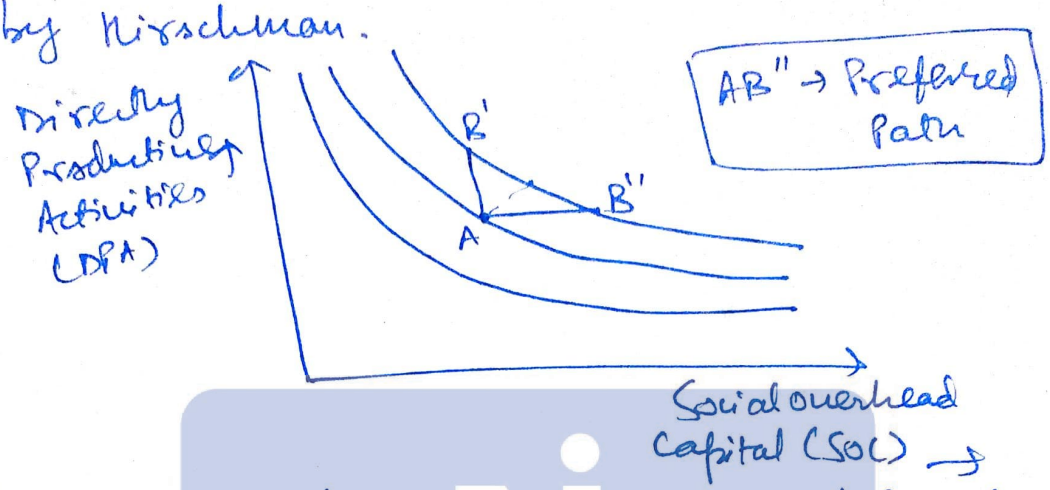
Growth rate of output at equilibrium will be equal to 0.

However, output will grow at the rate of $(x+n)$ resulting in higher level of output due to technological growth (output per capita remains same).

Candidates must not write on this margin

Ans (c)

Unbalanced growth theory was given by Hirschman.



DPA → creates convergent series of investments. That is, it appropriates more than the benefits it creates.

SOC → creates divergent series of Investment That is, it appropriates less than the benefits it creates.

(B.G) (U.B.G)

Both Balanced & Unbalanced Growth Theories are based on the concept of Linkages. However, their consideration of Linkages is different.

It is supply chain oriented in case of B.G. Theory, while it is industrial difference oriented in case of U.B.G. Theory

Candidates must not write on this margin

In case of U.B.G. Model, Both SoC & DPA activities needs to be supported through the use of Linkages. There is a need of Investment Planning & Prior information of Linkages as opposed to B.G. Model where the concept of Backward & Forward Linkages operates.

Criticisms of U.B.G.

(1) It becomes difficult to Predict the actual level of investment required.

(2) The losses incurred due to lack of Balanced growth have not been Considered.

(3) It assumed Perfect Mobility of factor of Production (Elasticity of Substitution) which need not be true always.

However, U.B.G. Theory has better Empirical Evidence than B.G. Theory.

Candidates must not write on this margin

Ques 2. (H-D Model)

Harrod's Domar Model

Assumptions :-

1. Demand side → Keynesian Model.
2. Closed economy.
3. Savings is exogenous.
4. Population growth is exogenous.
5. (K/Y) ratio → Constant.
6. Constant MP_K.

In case of H-D Model, the Investment was considered to increase the demand through higher demand of capital goods & increase supply due to the more Presence of capital goods in the economy.

g → actual growth rate of output [Demand side]

g_w → Warranted/desired growth rate of output [Supply side]

Equilibrium takes Place in case of H-D Model when $g = g_w = g_n$ (natural growth rate of output.)

However, the equilibrium is unstable that is if disturbed, it will not come back to its original Position.

Candidates must not write on this margin

This situation is known as Harrod's Instability or Knife's Ridge Eqbm.

Solutions to Remove Instability

① **Solow's Model**: If output increases at a decreasing rate of Capital, that is MP_K is declining (but remains positive)

② Reduced capacity of Capitalist to reinvest Profit back into the ~~bus~~ economy. This is due to higher wage Bill of the Capitalist, leading to lesser Profit & hence reduced Investment.

③ **Prof. Sen's Idea of W-P flexibility**

If W-P are flexible:

(a) If $g > g_w$

⇒ Demand > Supply → Price rises

↓

Supply rises due to higher Profit (g_w↑es) ← demand falls (g↓es)

↓

$g = g_w$ (Movement takes Place such that Eqbm is restored)

(b) If $g < g_w$ ⇒ Supply > Demand → Price falls

↓

$g = g_w$ ← Supply falls (g_w↓es) ← Demand rises (g↑es)

8. (a) The markets and state have complementary role to play in development of an economy. Critically analyse this statement in the light of Washington Consensus. (20)

Candidates must not write on this margin

The role of Markets & state in the development of an economy has always been a debatable issue.

Classical economists & Proponent of free trade such as Adam Smith considered Laissez-faire i.e. no interference of Government & that Markets are efficient enough to solve all the Problems central to them. They considered States to be inefficient ~~envisaging~~ considering the experiences of Mercantilism.

Later with the development of welfare state, Socialist institution & theoretical backing of Keynesian theory in the context of Great depression of 1929, the role of Government through its fiscal interventions was reasserted in the development & growth of an economy.

In current times as well, both Markets & States facilitate the working of each other & complement rather than conflicting each other's decision making.

Candidates must not write on this margin

Both Markets & States have their own role to Play & excel in their respective core areas Supplementing each other's Performance.

Role of Markets :-

① Providing Information relevant to market development. [Operational Efficiency]

② Enhances competition & thus maintains efficiency in decision making by Preventing Monopolisation of a single firm.

③ Generates Employment.

④ Better Technological diffusion, digitisation of economy leading to overall gains for all.

⑤ Provides tax to the government which enhances Government's fiscal space to spend more for social & economic infrastructure & development.

Role of State :-

① Maintaining Law & Order, Providing Administrative Efficiency.

② Enhancing cooperation between Multiple stakeholders, so as to improve Policy making & Proper information flow into the system.

Candidates must not write on this margin

③ Legislative Reforms helps in Providing a conducive Environment to Market for Carrying out their daily Business Activities

④ Judicial services, Viability gap funding in case of Concessional agreement, etc.

∴ Both States & Market are required to work in tandem to ensure that the economy reaches at a higher level of Social Welfare.

However, Washington Consensus of 1991 tries to undermine the Government's role & overemphasizes on Private firms/ Market's control over the economy.

Provisions :-

① Focus on liberalising Capital Account.

② Reduction in indirect subsidies given by the Govt. & eventually Phasing them out.

③ Reducing Corporate Tax rates.

This clearly represents the idea of Eliminating Government's role as a commanding height & giving more freedom to Markets to take their own decisions with govt. facilitating them.

Candidates must not write on this margin

However, recently the G7 conference came out with the new idea of Cornwall Consensus where the Countries are willing to get back to more Socialistic System with ~~them~~ enhanced role of Administrative Machinery pertaining to increased inequality due to the Washington Consensus coming into effect.

NEXT IAS

(b) The Endogenous growth model on Technology is developed as an improvement over static understanding of the Solow Model. Explain. Analyse the conclusions drawn by the Romer's Model. (15)

Candidates must not write on this margin

Solow's Model :-

Assumptions :- ① Technology is Exogenous. That is Technology affects growth, but it itself remains unaffected by the growth in the economy.

② Capital depriciates at the constant rate 'δ'.

③ No change in Population & Technology

④ Savings (S = sY) s → (MPS)

$$\Rightarrow \boxed{\Delta k = s \cdot f(k) - \delta k} \quad \text{— Solow's eqn}$$

Change in Capital stock = Investment

However, Romer improved over Solow's Model stating that Technology not only affects growth, but it also gets affected by the growth, i.e. Technology is Endogenous

Romer's Model :- ~~Assumptions~~ ~~① Capital & Labour~~

① Labour is invested only in either the Production of goods (L_Y) or in the Production of knowledge (L_A).

$\frac{L_Y}{L}$ = constant ; $\frac{L_A}{L}$ = constant.

Candidates must not write on this margin

② $\boxed{\frac{\dot{L}}{L} = n}$; where, $\boxed{\dot{L} = \frac{dL}{dt}}$

$\dot{L}$ → rate of change in Labour

n → Constant

L → ~~actual~~ current Labour.

③ At Eqbm ⇒ $\boxed{g_Y = g_A = g_K}$

According to Romer,

$\boxed{\dot{A} = \bar{\delta} L_A}$ — ① $\dot{A}$ → change in Level of Knowledge

L_A → Labour force involved in the creation of knowledge.

$\boxed{\bar{\delta} = \delta A^{\phi}}$ — ②

↓ Constant ;

A → Existing Level of knowledge.

ϕ → Ability of Present knowledge to Create an additional level of knowledge. (lies b/w 0 & 1)

This also represents standing on Shoulder's effect.

Combining Eq^n ① & ②

⇒ $\boxed{\dot{A} = \delta A^{\phi} L_A^{\lambda}}$

λ → Stepping on Toes effect.

If Multiple People are working on the same Problem statement, then the effective level of knowledge creation will be lesser.

[⇒ $0 < \lambda < 1$]

Candidates must not write on this margin

On solving, $\boxed{g_A = \frac{\Delta n}{(1-\phi)}}$ → growth rate of Knowledge.

Interpretation:-

① Higher ϕ → Higher g_A (Most Policy determined).

② Higher n → Higher g_A

③ Higher ϕ → Higher g_A
i.e. better the Propensity of existing knowledge level to create higher future knowledge, better will be the growth Prospects of the economy.

⇒ Under steady state: $\boxed{g_Y = g_A = g_K = \frac{\Delta n}{1-\phi}}$

$\frac{\dot{Y}}{Y}$ $\frac{\dot{A}}{A}$ $\frac{\dot{K}}{K}$.

Criticisms:-

① It does not considers the International flow of Capital.

② Assumption of constant Proportion of ~~kalyan~~ ~~land~~ force in each ~~te~~ domain need not be true. (Constant $\frac{L_Y}{L}$ & $\frac{L_A}{L}$ need not be necessarily hold true)

③ Weak Empirical evidence in case of developing economies.

(c) What are the core requirements of strategy of agricultural and rural development? (15)

Candidates must not write on this margin

Agriculture forms an important & component of Rural GDP. Most of the Rural Population is dependent on Agriculture for their Primary needs of food & income. However, stagnation in Agricultural GDP growth has posed challenges to the Rural economy.

In India, Agriculture is growing at a meagre rate of 3% p.a. Post Liberalisation, as compared to more than 4.5% p.a. in other developing economies such as china. Also, more than 85% of the farmers are small & Marginal Farming [< 5 ha of Land holdings] which Prohibits them from exploiting economies of Scale.

Thus, various Structural Reforms are required to make Agriculture a Productive sector.

Strategy of Agriculture & Rural Development

(1) Better Penetration of financial institutions & insurance firms in the Rural areas. This will help in formalisation of credit to the farmers.

Candidates must not write on this margin

(2) Focus on Building Infrastructure such as roads, railways, cold storage facilities, warehouses, assaying & measurement facilities, irrigation facilities, etc. This will not only generate employment but will also increase the demand of wage Capital, thus creating a Multiplier effect in Rural Economy. This also results helps in Centrifugal or Spread effect.

(3) Focussing on alternative measures of income such as Animal Husbandry, Poultry, Livestock raising, etc.

(4) Promoting food Processing industries in the Rural areas & developing Entrepreneurship at Local level.

(5) Development of FPOs & Capacity building of cooperatives.

(6) Crop Diversification

(7) Increased coverage of Government initiatives such as PMFBY, KCC, Soil Health Scheme, PM-AASHA, etc.

(8) Focus on Public Investment through R&D as suggested by Economists such as ~~Ashok~~ Prof. Ashok Gulati.

Candidates must not write on this margin

Thus, there is a need to shift focus from subsidy driven Agriculture to Investment driven Agriculture, which is economically viable, environmentally sustainable & farmer friendly.

~~Both~~ Government, cooperatives, Research Institutions & Private Players needs to cooperate & solve issues central to the Agriculture sector in India.