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SUGGESTED SOLUTION
INTERMEDIATE NOV'18 EXAM

SUBJECT- FM AND ECO

Test Code - CIN 5022

BRANCH - () (Date :)

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PART – A : FM

Answer 1:

1. Computation of Market Return and Risk Adjusted Discount Rate based on CAPM

Under CAPM, Expected Return = Risk Adjusted Discount Rate= Market Return + (Risk Index x Risk Premium)

(a) Basic Data

Particulars	Value
Risk Free Rate of Return	10%
Minimum Expected Rate of Return	15%
Risk Premium	5%

(b) Computation of Risk Adjusted Discount Rate

Project (1)	Risk Index (2)	Risk Index x Risk Premium (3)	Risk Adjusted Discount Rate (4) = Risk Free Rate (10%) + (3)
P-I	1.80	$1.8 \times 5 = 9\%$	19%
P -II	1.00	$1.0 \times 5 = 5\%$	15%
P -III	0.60	$0.6 \times 5 = 3\%$	13%

(c) Computation of NPV of the Projects

Project P-I				Project P - II				Project P-III			
Year	Disc. Fac. @ 19%	Cash Flows	Disc. Cash Flows	Year	PVF @15%	Cash Flows	Disc. Cash Flows	Year	PVF @ 13%	Cash Flows	Disc. Cash Flows
1-4	2.6385	6,00,000	15,83,100	1	0.8696	6,00,000	5,21,760	1	0.8849	4,00,000	3,53,960
-	-	-	-	2	0.7562	4,00,000	3,02,480	2	0.7832	6,00,000	4,69,920
-	-	-	-	3	0.6575	5,00,000	3,28,750	3	0.6930	8,00,000	5,54,400
-	-	-	-	4	0.5717	2,00,000	1,14,340	4	0.6133	12,00,000	7,35,960
PV of Cash Inflows			15,83,100				12,67,330				21,14,140
Less: Initial Investment			15,00,000				11,00,000				19,00,000
Net Present Value			83,100				1,67,330				2,14,240

Conclusion: Since the NPV of Project III is greater than that of the other projects, it is the best.

Answer 2:

Note: Discount Factor to be used = After Tax Cost of debt = $10\% \times (1 - 0.3) = 7\%$

1. Computation of Outflows under Lease Option

- (a) Let lease Rentals be Rs. x p.a. So, Post Tax Lease Rentals p.a. = $(x) \times (1 - 0.3) = 0.7x$
- (b) Annuity Factor at 7% for 5 Years = 4.099
- (c) So, PV of Post Tax Lease Rentals = Outflows under Lease Option = $(a \times b) = 2.8693x$

2. Computation of Tax Savings on Depreciation

Particulars	Rs.
(a) Depreciation p.a. = $\frac{\text{Cost}}{\text{Life in Years}} = \frac{5,00,000}{5 \text{ Years}} =$	1,00,000
(b) Tax Savings on Annual Depreciation [Tax Rate 30% x Annual Depn. Rs.1,00,000]	30,000

3. Computation of Loan and Interest Paid

Year	Opening Loan Balance	Principal Paid	Interest	Tax Savings on Interest	Total Outflow
(1)	(2)	(3)	(4) = (2) x 10%	(5) = (4) x 30%	(6) = (3) + (4) - (5) - Tax Savings on depn (30,000)
1	5,00,000	1,00,000	50,000 [5,00,000 x 10%]	15,000 [50,000 x 30%]	1,05,000
2	4,00,000 [5,00,000 - 4,00,000]	1,00,000	40,000 [4,00,000 x 10%]	12,000 [40,000 x 30%]	98,000
3	3,00,000 [4,00,000 - 1,00,000]	1,00,000	30,000 [3,00,000 x 10%]	9,000 [30,000 x 30%]	91,000
4	2,00,000 [2,00,000 - 1,00,000]	1,00,000	20,000 [2,00,000 x 10%]	6,000 [20,000 x 30%]	84,000
5	1,00,000 [1,00,000 - 1,00,000]	1,00,000	10,000 [1,00,000 X 10%]	3,000 [10,000 x 30%]	77,000

4. Computation of Present Value of Cash Outflows under Loan Option

Particulars	Cash Flow	Year	Disc. Factor 7%	Disc. Cash Flow
Outflows as per WN 2	1,05,000	1	0.934	98,070
	98,000	2	0.873	85,554
	91,000	3	0.816	74,256
	84,000	4	0.763	64,092
	77,000	5	0.713	54,901
Present Value of Outflows Less : Salvage Value [Rs.50,000 x (1 - Tax Rate of 30%)]	35,000	5	0.713	3,76,873 24,955
Present Value of Outflows				3,51,918

5. Computation of Lease Rental

Particulars	Rs.
(a) Present Value of Outflows under Lease Option = Present Value of Outflows under Loan Option	3,51,918
(c) So, $2.8693 \times x = 3,51,918$. Hence $x = \frac{3,51,918}{2.8693} = 1,22,649$ Required Lease Rentals p.a. =	1,22,649

Answer 3:

(i) Cost of Project

At 15% internal rate of return (IRR), the sum of total cash inflows = cost of the project i.e initial cash outlay

Annual cost savings = Rs. 96,000

Useful life = 5 years

Considering the discount factor table @ 15%, cumulative present value of cash inflows for 5 years is 3.353

Hence, Total Cash inflows for 5 years for the Project is $96,000 \times 3.353 = \text{Rs. } 3,21,888$

Hence, Cost of the Project = Rs. 3,21,888

(ii) Payback Period

$$\text{Payback period} = \frac{\text{Cost of the Project}}{\text{Annual Cost Savings}} = \frac{\text{Rs. } 3,21,888}{96,000}$$

Payback Period = 3.353 years

(iii) Net Present Value (NPV)

NPV = Sum of Present Values of Cash inflows – Cost of the Project

= Rs. 3,37,982.40 – 3,21,888 = Rs. 16,094.40

Net Present Value = Rs. 16,094.40

(iv) Cost of Capital

$$\text{Profitability index} = \frac{\text{Sum of Discounted Cash inflows}}{\text{Cost of the Project}}$$

$$1.05 = \frac{\text{Sum of Discounted Cash Inflows}}{3,21,888}$$

∴ Sum of Discounted Cash inflows = Rs. 3,37,982.40

Since, Annual Cost Saving = Rs. 96,000

$$\text{Hence, cumulative discount factor for 5 years} = \frac{\text{Rs. } 3,37,982.40}{96,000}$$

From the discount factor table, at discount rate of 13%, the cumulative discount factor for 5 years is 3.52

Hence, Cost of Capital = 13%

Answer :4

1. Project S (Rs. Lakhs)

NPV Estimate (N)	Probability CP)	Expected NPV ,	Deviation from Expected NPV (D)	Square of Deviation [D ²]	Variance [P x D ²]
(1)	(2)	(3) = (1) x (2)	(4) = (1) - Σ (3)	(5)	(6) = (2) x (5)
3	0.1	0.3	(6.0)	36.0	3.6
6	0.4	2.4	(3.0)	9.0	3.6
12	0.4	4.8	3.0	9.0	3.6
15	0.1	1.5	6.0	36.0	3.6
Expected NPV	9.0				14.4

2. Project T (Rs. Lakhs)

NPV Estimate (N)	Probability(P)	Expected NPV	Deviation from Expected NPV (D)	Square of Deviation [D ²]	Variance [P x D ²]
(1)	(2)	(3) = (1) x (2)	(4) = (1) — 2(3)	(5)	(6) = (2)x(5)
5	0.2	1.0	(9.1)	82.81	16.56
9	0.3	2.7	(5.1)	26.01	7.80
18	0.3	5.4	3.9	15.21	4.56
25	0.2	5.0	10.9	118.81	23.76
Expected NPV	14.1			52.68	

3. Evaluation

Particulars	Project S	Project T
Variance [σ^2]	14.4	52.68
Standard Deviation [σ] [Risk Associated with the Project]	$\sqrt{14.4} = 3.79$	$\sqrt{52.68} = 7.26$
Expected NPV	9.0	14.10
Co-efficient of Variation = $\frac{\text{Standard Deviation}}{\text{Expected NPV}}$	$\frac{3.79}{9} = 0.42$	$\frac{7.26}{14.1} = 0.51$
Investment	30.0	50.0
Total Inflows = Investment + Expected NPV	30 + 9 = 39.0	50 + 14.1 = 64.1
Profitability Index = $\frac{\text{PV of Inflows}}{\text{PV of Outflows}}$	$\frac{39}{30} = 1.30$	$\frac{64.1}{50} = 1.28$

Observation: Project T is more risky than Project S, as the Standard Deviation and co-efficient of Variation is higher for Project T. Project S is also better in terms of return on investment, since the Profitability Index is higher.

PART – B

Answer : 5

- (a) **1. Concept :** GNP_{MP} is the measure of the Market Value of all final goods and services, without subtracting Depreciation, produced within the “domestic” territory of a country, in a year, plus Net Factor Incomes from abroad.
- 2. Computation :** $GNP_{MP} = GDP_{MP} (+) \text{ Net Factor Income from Abroad (NFIA)}$
- (b) **Price Control :**
1. Some examples of Price Controls are – (a) Minimum Wages, (b) Rent Controls, (c) Minimum Support Prices for foodgrains, (d) Maximum Price above which certain Medicines cannot be sold, etc.
 2. Price Control may be – (a) Price Floor (i.e. a Minimum price that Buyers are required to pay), or (b) Price Ceiling (i.e. a Maximum price that Sellers are allowed to charge for a good or service).
 3. In case of Primary Markets for Crops which are subject to wide price fluctuations, Government intervenes to manage prices in many ways –
 - (a) Fixing Minimum Support Prices (MSP) in case of surplus crop production, to guarantee assured incomes to farmers, [Note : If Market Prices < MSP, then MSP will be paid to Farmers.]
 - (b) Setting Maximum Prices of Foodgrains during times of scarcity.
 - (c) Government Procurement and stocking of Foodgrains to stabilize prices and consumption.
- (c) Moral hazard is associated with information failure and refers to a situation that increases the probability of occurrence of a loss or a larger than normal loss, because of a change in the unobservable or hard to observe behavior of one of the parties in the transaction after the transaction has been made. Moral hazard is opportunism characterized by an informed person’s taking advantage of a less – informed person through an unobserved action. It arises from lack of information about someone’s future behavior. Moral hazard occurs due to asymmetric information i.e., an individual knows more about his or her own actions than other people do. This leads to a distortion of incentives to take care or to exert effort when someone else bears the costs of the lack of care or effort. For example, in the insurance market, the expected loss from an adverse event increases as insurance coverage increases.
- (d) $k. \Delta I = \Delta Y; k = 1/0.4$
- $= (1250 - 1000) .0.4$
- $= 100 \text{ billion}$
- (e) **Restrictions / Barriers :** However, Government intervention in restricting free flow of goods and services is found in many forms in the practical world, which takes the form of Trade Barriers. The main purposes of imposing Trade Barriers are -
- (a) To protect Domestic Industries from Foreign Competition,
 - (b) To conserve the Foreign Exchange Resources of the Country,
 - (c) To make the Balance of Payments Position favourable.
 - (d) To curb Conspicuous Consumption,
 - (e) To mobilise Revenue for the Government and,

(f) To discriminate against certain countries.

Note : Depending on the economic situation, Trade Barriers may be oriented towards –

(a) Promoting exports, and restricting imports, [general situation] or

(b) Promoting imports, and restricting exports [in certain goods, and in certain situations]

Answer : 6

(a)

1. Consumption Function (C) = a + bY. In this case, a = 9,000 (given), b = MPC = 0.4 (given)

Hence, Consumption Function (C) = 9,000 + 0.4Y

2. If the Consumption is 36,000, then (C) 36,000 = 9,000 + 0.4Y. Solving, we have, Income (Y) = Rs. 67, 500.

3. If Income (Y) is 75,000, Consumption = 9,000 + 0.4Y = 9,000 + (0.4 × 75,000) = Rs. 39,000. Out of the Total Consumption, since Autonomous Consumption is Rs. 9,000, balance Induced Consumption is Rs. 30,000.

(b)

Point	Description
Concept	<ol style="list-style-type: none"> 1. When the actions of either Consumers or Producers result in Costs or Benefits that do not reflect as part of the Market Price, such costs or Benefits which are not recognised by, and accounted for, by the Market Price are called “Externalities”. 2. An Externality occurs, when a Consumption or Production Activity has an indirect effect on other’s Consumption or Production Activities and such effect are not reflected directly in Market Prices.
Features	<ol style="list-style-type: none"> 1. The Originator of the Externality imposes Costs or Benefits on other persons who are not responsible for initiating the effect. 2. It occurs outside the Price Mechanism, i.e. not through the operation of the Price System. 3. It is initiated and experienced outside or “external to” the Market. 4. It is uninternalized, i.e. or the Cost (Benefit) thereof is not borne (paid) by the Parties concerned. 5. It is also called “Spillover Effect”, “Neighbourhood Effect”, “Third – Party Effect” or “Side – Effect”.

(c) When a country enjoys the best trade terms given by its trading partner it is said to enjoy the Most Favoured Nation (MFN) status. Originally formulated as Article 1 of GATT, this principle of non – discrimination states that any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be extended immediately and unconditionally to the like product originating or destined for the territories of all other contracting parties. Under the WTO agreements, countries cannot normally discriminate between their trading partners. If a country improves the benefits that it gives to one trading partner, (such as a lower a trade barrier, or opens up a market), it has to give the same best treatment to all the other WTO members too in respect of the same goods or services so that they all remain ‘most – favoured’. As per the WTO agreements, each member treats all the other members equally as “most – favoured” trading partners.

(d) Free trade policy is based on the principle of non – interference by government in foreign trade. The distinction between domestic trade and international trade disappears and goods and services are freely imported from and exported to the rest of the world. Buyers and sellers from separate economies voluntarily trade without the domestic government helping or hindering movements of goods and services between countries by applying tariffs, quotas, subsidies or prohibitions on their goods and services. The theoretical case for free trade is based on Adam Smith’s argument that the division of labour among countries leads to specialization, greater efficiency, and higher aggregate production.

Answer : 7

(a)

The Liquidity Adjustment Facility(LAF) is a facility extended by the Reserve Bank of India to the scheduled commercial banks(excluding RRBs) and primary dealers to avail of liquidity in case of requirement (or park excess funds with the RBI in case of excess liquidity) on an overnight basis against the collateral of government securities including state government securities. The objective is to provide liquidity to commercial banks to adjust their day to day mismatches in liquidity. Under this facility, financial accommodation is provided through repos/ reverse repos.

(b)

Particulars	Industry A	Industry B	Industry C
Sale Price of Output	400 + 200 + 1,000 = 1,600	500 + 800 = 1,300	600 + 500 = 1,100
Less : Cost of Intermediate Consumption	100	400	200 + 500 = 700
Value Added by Industry	1,500	900	400

GDP at Market Prices = GNP at Market Prices (no Net Factor Income from abroad)	2,800
Less : Indirect Taxes	(100)
Add : Subsidies	50
Gross National Product at Factor Cost	2,750
Less : Depreciation	(100)
Net National Product at Factor Cost	2,650
Less : Subsidies	(50)
Add : Indirect Taxes	100
Net National Product at Market Prices	2,700

(c)

- Spot Market :** Currency Transactions which involves immediate delivery (Settlement = 2 Days). Exchange Rates prevailing for Spot Trading are called Spot Exchange Rates.
- Forward Market :** Contracts to buy or sell Currencies for future delivery are carried out in Forward Markets. It is also called as Futures Market. Exchange Rates quoted in Exchange Transaction that specify a future date are called Forward Exchange Rates. Forward Rates are quoted just like Spot Rate.

Note : Currency Futures, though conceptually similar to Currency Forward and perform the same function, they are distinct in their nature and details concerning Settlement and Delivery.

Answer : 8

(a)

Point	Expansionary Fiscal Policy	Contractionary Fiscal Policy
When used ?	To stimulate the economy – <ul style="list-style-type: none"> • During the contractionary phase of a business cycle, or • when there is an anticipation of a 	To restrain the levels of economic activity of the economy – <ul style="list-style-type: none"> • During an inflationary phase, or • When there is anticipation of a business

	business cycle contraction.	– cycle expansion which is likely to induce inflation.
Applies to	Recession / Deflation situation, i.e. low growth rate, with fall in Aggregate Demand.	Inflation. i.e., growth rate is extraordinarily high causing inflation and asset bubbles.
Scenario	<ul style="list-style-type: none"> • Decline / slump in overall economic activity, • Decline in Real Income (Real GDP), • Higher rates of unemployment, • Fall in Aggregate Demand (i.e., demand – deficient recession), • Production of lower quantity of goods and services. 	<ul style="list-style-type: none"> • Increase in Aggregate Demand (i.e. demand – pull inflation), • Increase in economic activities of Consumption and Investment, due to higher levels of Disposable incomes with Households and Firms, • Higher Factor Prices, leading to higher cost of producing goods.
Gap to be addressed	<p>Recessionary Gap or Contractionary Gap –</p> <ul style="list-style-type: none"> • It is a measure of output that is lost when actual National Income falls short of potential income. • Aggregate Demand is not sufficient to create conditions of full employment. [Note 1] • It arises if the existing level of aggregate production is less than what would be produced with full employment of resources. 	<p>Inflationary Gap or Expansionary Gap –</p> <ul style="list-style-type: none"> • It arises Aggregate Demand rises beyond what the economy can potentially produce by fully employing its given resources. • Demand increase with a given level of output, pushes up prices, is called Demand – Pull Inflation. • Prices of factors (e.g. Rent, Labour) increase, leading to increase in cost of producing goods and services – this is called Cost – Push Inflation.
Operation	By increasing aggregate expenditures and aggregate demand, through an increase in Govt. spending [Note 2] and / or a decrease in taxes.	By decreasing the aggregate expenditures and aggregate demand through a decrease in all types of Government Spending and / or an increase in taxes.
Usage of Policy Tools	<ul style="list-style-type: none"> • Lower Personal and Corporate Taxes, • Higher levels of Government Spending, • Reduction in Government Borrowing, and • Higher Budget Deficit or Reduced Surplus. 	<ul style="list-style-type: none"> • Higher Personal and Corporate Taxes, • Reduced levels of Government Spending, • Increase in Government Borrowing and • Smaller Budget Deficit or Higher Surplus.
Impact	<ul style="list-style-type: none"> • Higher levels of disposable Income and more government spending increases the Consumption Levels of Households. • Lower Corporate Taxes gives more Income for Firms to increase investment. New Firms are attracted to invest, due to lower taxes. • Higher Consumption and Investment stimulates the economy, and increases Aggregate Demand. 	<ul style="list-style-type: none"> • Higher Taxes, lower levels of Disposable Income and less Government spending reduces the Consumption Levels of Households. • Higher Corporate Taxes leads to less Net Incomes for Firms, and consequently lower investment. New Firms do not enter the field, due to higher taxes. • Lower Consumption and Investment, regulates the economy, and moderates the unsustainable increase in Aggregate Demand.

Note : If the Aggregate Demand (i.e. economy's appetite for buying goods & services) falls short of Aggregate Supply (the economy's capacity to produce goods & services), it results in unemployment of resources, especially Labour.

Note : Effect of increased Government Spending is magnified with a Multiplier Effect on Aggregate Demand. Government increases demand directly through its purchase/ factor payments, and indirectly by putting more Disposable Incomes in the hands of Firms/ Households.

- (b) The Marginal Standing Facility(MSF) is the last resort for banks to obtain funds once they exhaust all borrowing options including the liquidity adjustment facility on which the rates are lower compared to the MSF. Under this facility, the scheduled commercial banks can borrow additional amount of overnight money from the central bank over and above what is available to them through the LAF window by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a limit(a fixed per cent of their net demand and time liabilities deposits(NDTL) liable to change) at a penal rate of interest. The scheme has been introduced by RBI with the main aim of reducing volatility in the overnight lending rates in the inter – bank market and to enable smooth monetary transmission in the financial system. This provides a safety valve against unexpected liquidity shocks to the banking system.
- (c) **Explanation :** Under Friedman Theory, there are four Determinants of the Demand for Money -

Factors	Description /Nature of Relation
Permanent Income	a) Permanent Income is the present expected value of all Future Income. b) Nominal Demand for Money is a function of Total Wealth. $\left[Total\ wealth = \frac{Permanent\ Income}{Discount\ Rate} \right]$ c) Discount Rate is taken as the Average Return on the five asset classes in the Monetarist Theory World, viz. Money, Bonds, Equity, Physical Capital & Human Capital.
Price Level	a) Nominal Demand for Money is positively related to the Price Level, P. b) If the Price Level rises, the Demand for Money increases and vice – versa.
Opportunity Cost	a) Nominal Demand for Money is inversely related to the Opportunity Costs of Money Holdings. b) If the Returns on Bonds and Stock declines, Nominal Demand for Money rises and vice – versa.
Inflation	Nominal Demand for Money is influenced by Inflation. A Positive Inflation Rate reduces the Real Value of Money Balances, thereby increasing the Opportunity Costs of Money Holdings.

Answer : 9

(a) Investment Multiplier = $\frac{\Delta Y}{\Delta I} = \frac{1}{MPS} = \frac{1}{0.75} = 1.33$ times

Since, $\Delta I = 1,000$, $\Delta Y = 1.33 \text{ times} \times 1,000 = 1,333$.

Hence, Revised Equilibrium Level of Income = $Y + \Delta Y = 14,000 + 1,333 = 15, 333$.

(b) Repo and Reverse Repo :

	Repurchase Transaction (Repo)	Reverse Repurchase (Reverse Repo)
Meaning	Instrument for borrowing funds by selling Securities with an agreement to re – purchase them on a mutually agree future date at an agreed price which includes Interest for the Funds borrowed.	Instruments for lending Funds by purchasing Securities with an agreement to resell them on a mutually agreed future date at an agreed price which includes interest for the funds lent.
Process	Rep Operation takes place when other Banks borrow Money from RBI by giving Securities to the RBI.	Reverse Repo Operation takes place when RBI borrows Money from Banks by giving them Securities.
Impact	Repo Operations inject Liquidity into the system.	This operation absorbs the Liquidity in the system.
Interest (Note)	Interest Rate charged by RBI for this transaction is called the ‘Repo Rate’. Higher than Reverse Repo Rate.	Interest Rate paid by RBI for such transactions is called the ‘Reverse Repo Rate.’ Less than Repo Rate.
Presently	Repo Rate is 6.25%	Reverse Repo Rate is 6%.

(c) Arbitrage Concept in Forex Market :

1. Arbitrage refers to the practice of making risk – less profits by intelligently exploiting price differences of an Asset at different dealing locations.
2. When price differences occur in different markets, Market Participants will purchase the Asset in a low – priced market – for re – sale in a high – priced market and make profit in this process.
3. Due to the operation of Price Mechanism, the price is driven up in the low – priced market and pushed down in the high – priced market.
4. This activity will continue until the prices in the two markets are equalized, or until they differ only by the amount of Transaction Costs involved in the operation.
5. There is potential for arbitrage in the Forex Market if exchange rates are not consistent between currencies. However, since Forex Markets are highly integrated and efficient, any Profit Spread on a given currency is quickly arbitrated away.

(d) Meaning : Tariff (also called Customs Duty) is a tax or duty imposed on goods and services that are imported or exported. [**Note :** Generally, the term is used in the context of Imports, and is identified with Import Duties.]

Answer : 10

- (a) Based on the concepts of “Domestic” and “National” measurements, as well as the concepts of “Market Prices” and “Factor Cost” given above, the following concepts of measurements arise –

	GDP at Factor Cost	GNP at Factor Cost
Meaning	GDP_{FC} is the Total of Incomes of Factors of Production, i.e. Land, Labour, Capital and Entrepreneurship.	GNP_{FC} is the Total of Incomes of Factors of Production, i.e. Land, Labour, Capital and Entrepreneurship, adjusted for Net factor Incomes from Abroad.

Formula (a) MP vs FC Route	$GDP_{FC} = GDP_{MP} (-) \text{ Net Indirect Taxes}$	$GNP_{FC} = GNP_{MP} (-) \text{ Net Indirect Taxes}$
(b) Total Factor cost Route	Compensation of Employees + Operating Surplus + Mixed Income of Self – Employed + Depreciation	Compensation of Employees + Operating Surplus + Mixed Income of Self – Employed + Depreciation + Net Factor Incomes from Abroad

Note : Net Indirect Taxes = Indirect Taxes (-) Subsidies.

Operating Surplus = Rent + Interest + Profits.

- (b) The ‘real exchange rate’ incorporates changes in prices and describes ‘how many’ of a good or service in one country can be traded for ‘one’ of that good or service in a foreign country.

$$\text{Real exchange rate} = \text{Nominal exchange rate} \times \frac{\text{Domestic price Index}}{\text{Foreign price Index}}$$

- (c) (i) $Y = C + I + G + (X - M)$

$$Y = 0.75 \times \{(1 - 0.30) * Y\} + 250 + 800 + 600 - 0.15 \times Y$$

$$Y = 0.375 Y + 1650$$

$$Y = \frac{1650}{0.625}$$

Hence $Y = \text{Rs. } 2640 \text{ Crores}$

- (ii) Exports (X) = Rs. 600 Crores

Imports = $0.15 (2640) = \text{Rs. } 396 \text{ Crores}$

Hence current account is in surplus of Rs. 204 Crores

- (iii) Tax revenue = $0.3 (2640) = \text{Rs. } 792 \text{ Crores}$

Government expenditure = Rs. 800 Crores

Hence budget is in deficit of Rs. 8 crores i.e. – 8

Answer : 11

- (a) In the early 1900s, Cambridge Economists Alfred Marshall, A.C. Pigou, D.H. Robertson and John Maynard Keynes (then associated with Cambridge) put forward a fundamentally different approach to quantity theory, known neoclassical theory or cash balance approach. The Cambridge version holds that money increases utility in the following two ways :

1. Enabling the possibility of split – up of sale and purchase to two different points of time rather than being simultaneous, and
2. Being a hedge against uncertainty.

While the first above represents transaction motive, just as Fisher envisaged, the second points to money’s role as a temporary store of wealth. Since sale and purchase of

commodities by individuals do not take place simultaneously, they need a ‘temporary abode’ of purchasing power as a hedge against uncertainty. As such, demand for money also involves a precautionary motive in Cambridge approach. Since money gives utility in its store of wealth and precautionary modes, one can say that money is demanded for itself.

Now, the question is how much money will be demanded ? The answer is : it depends partly on income and partly on other factors of which important ones are wealth and interest rates. The former determinant of demand i.e. income, points to transactions demand such that higher the income, the greater the quantity of purchases and as a consequence greater will be the need for money as a temporary abode of value of overcome transactions costs. The Cambridge equation is stated as :

$M_d = k PY$, Where M_d = is the demand for money

Y = real national income

P = average price level of currently produced goods and services

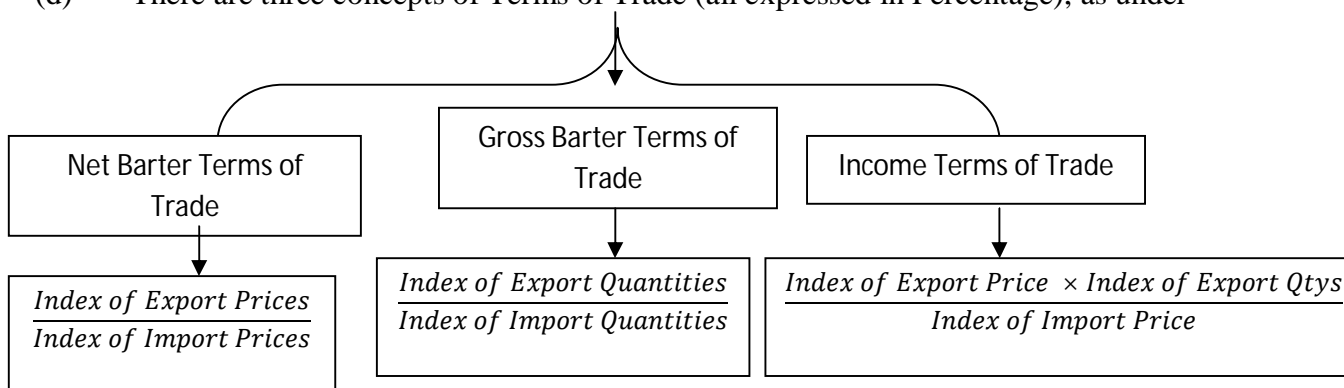
PY = nominal income

k = proportion of nominal income (PY) that people want to hold as cash balances

The term ‘ k ’ in the above equation is called ‘Cambridge k ’. The equation above explains that the demand for money (M) equals k proportion of the total money income.

Thus we see that the neoclassical theory changed the focus of the quantity theory of money to money demand and hypothesized that demand for money is a function of money income. Both these versions are chiefly concerned with money as a means of transactions or exchange, and therefore, they present models of the transaction demand for money.

- (b) The marginal propensity to consume (MPC) is the determinant of the value of the multiplier and that there exists a direct relationship between MPC and the value of multiplier. Higher the MPC, more will be the value of the multiplier and vice – versa. A flat aggregate expenditure function implies lower MPC and higher MPS for all levels of income. Therefore, the value of multiplier will be small.
- (c) “Crowding Out” Effect is the negative effect that a Fiscal Policy may generate, when money from the Private Sector is “crowded out” to the Public Sector.
- (d) There are three concepts of Terms of Trade (all expressed in Percentage), as under -



Note : Terms of Trade depend on a number of factors including – (a) Elasticity of Demand and supply, (b) Availability of Substitutes, (c) Size of Demand, (d) Rate of Exchange, (e) Production Structure of a Country, etc.