MOCK TEST PAPER

INTERMEDIATE (NEW): GROUP – II

PAPER – 8: FINANCIAL MANAGEMENT & ECONOMICS FOR FINANCE

8A : FINANCIAL MANAGEMENT

Suggested Answers/ Hints

1. (a) Statement showing the Evaluation of Accounts Receivable Policies

(Amount in ₹)

	Particulars	Present Policy	Proposed Policy 1	Proposed Policy 2
A	**Expected Profit:**			
	(a) Credit Sales	50,00,000	60,00,000	67,50,000
	(b) Total Cost other than Bad Debts:			
	(i) Variable Costs	35,00,000	42,00,000	47,25,000
	(c) Bad Debts	1,50,000	3,00,000	4,50,000
	(d) Expected Profit [(a) – (b) – (c)]	13,50,000	15,00,000	15,75,000
B	**Opportunity Cost of Investments in Accounts Receivable** (Working Note)	1,75,000	2,80,000	3,93,750
C	**Net Benefits (A – B)**	11,75,000	12,20,000	11,81,250

Recommendation: The Proposed Policy 1 should be adopted since the net benefits under this policy are higher as compared to other policies.

Working Note:

Calculation of Opportunity Cost of Average Investments

Opportunity Cost = Total Cost × Collection period/12 × Rate of Return/100

Present Policy = ₹ 35,00,000 × 3/12 × 20% = ₹ 1,75,000

Proposed Policy 1 = ₹ 42,00,000 × 4/12 × 20% = ₹ 2,80,000

Proposed Policy 2 = ₹ 47,25,000 × 5/12 × 20% = ₹ 3,93,750

(b) Price per share according to Gordon's Model is calculated as follows:

Particulars	Amount in ₹
Net Profit	50 lakhs
Less: Preference dividend	15 lakhs
Earnings for equity shareholders	35 lakhs
Therefore, earning per share	35 lakhs/5 lakhs = ₹ 7.00

Price per share according to Gordon's Model is calculated as follows:

$$P_0 = \frac{E_1(1-b)}{K_e - br}$$

Here, $E_1 = 7$, $K_e = 16\%$

(i) When dividend pay-out is 25%

$$P_0 = \frac{7 \times 0.25}{0.16 - (0.75 \times 0.2)} = \frac{1.75}{0.16 - 0.15} = 175$$

(ii) When dividend pay-out is 50%

$$P_0 = \frac{7 \times 0.5}{0.16 - (0.5 \times 0.2)} = \frac{3.5}{0.16 - 0.10} = 58.33$$

(iii) When dividend pay-out is 100%

$$P_0 = \frac{7 \times 1}{0.16 - (0 \times 0.2)} = \frac{7}{0.16} = 43.75$$

(c) (i) The possible outcomes under different scenario will be as follows:

(Amount in ₹ '000)

Year	PVF @ 9%	Scenario 1		Scenario 2		Scenario 3	
		Cash Flow	PV	Cash Flow	PV	Cash Flow	PV
0	1.000	(1600)	(1600)	(1600)	(1600)	(1600)	(1600)
1	0.917	550.00	504.35	650.00	596.05	750.00	687.75
2	0.842	500.00	421.00	550.00	463.10	600.00	505.20
3	0.772	800.00	617.60	900.00	694.80	1000.00	772.00
		NPV	(57.05)		153.95		364.95

(ii) The company is bit confident about the estimates in the first two years, but not sure about the third year's cash inflow, the NPV in such case expecting scenario 1 in the third year will be as follows:

= -16,00,000 + (6,50,000 × 0.917 + 5,50,000 × 0.842 + 8,00,000 × 0.772)

= -16,00,000 + (5,96,050 + 4,63,100 + 6,17,600)

= ₹ 76,750

(d) Working Notes

1. Computation of Current Assets and Cash & Bank Balance

$$\text{Current Ratio} = \frac{\text{Current Assets (CA)}}{\text{Current Liabilities (CL)}} = 1.6$$

Current Assets = 1.6 Current Liabilities = 1.6 × ₹ 68,50,000 = ₹ 1,09,60,000/-

So, Cash and Bank Balance=15% of Current Assets = **₹ 16,44,000**

2. Computation of Total Assets, Fixed assets and Depreciation

Total Assets = Net Fixed assets+ Current Asset

Or, Total Assets = 20% of Total Asset + ₹ 1,09,60,000

Or, Total Assets = ₹ 1,37,00,000

So, Net Fixed assets = 20% of Total Asset = **₹ 27,40,000**

Depreciation = $\frac{27,40,000}{85\%} \times 15\% =$ Rs4,83,529

Fixed Assets = ₹ 27,40,000 + Rs4,83,529 = ₹ 32,23,529

3. Calculation of stock, Debtors and Creditors

Stock + Debtors = Current Assets – Cash & Bank

= ₹ 1,09,60,000 – ₹ 16,44,000

= ₹ 93,16,000

Now, let Sales be x

So, Debtors (Credit Sales) $= \frac{\text{Credit Sales}}{\text{Debtors turnover ratio}} = \frac{x}{12}$

Further, Stock (on Cost of Goods Sold) $= \frac{\text{Sales - 20\% of Sales}}{16}$

$= \frac{x - 20\% \text{ of } x}{16}$

$= \frac{x - \frac{x}{5}}{16} = \frac{\frac{4x}{5}}{16}$

$= \frac{x}{20}$

So, $\frac{x}{12} + \frac{x}{20} = \text{Rs. } 93,16,000$

Or, $\frac{10x + 6x}{120} = \text{Rs. } 93,16,000$

Or, $\frac{16x}{120} = \text{Rs. } 93,16,000$

Or, x = ₹ 6,98,70,000

So, Sales = ₹ 6,98,70,000

Cash of Goods Sold (COGS) = ₹ 5,58,96,000

Stock (COGS/16) = **₹ 34,93,500**

Debtors (Sales/12) = **₹ 58,22,500**

Creditors (COGS/10) = **₹ 55,89,600**

4. Calculation of Provision of outstanding Expenses

= ₹ 68,50,000 – ₹ 55,89,600

= ₹ 12,60,400

5. Share Capital + Reserve of surplus + long term debt = Total Asset or total liability – Current liability

Or, Reserve & surplus + long term debt = ₹ 1,37,00,000 – 68,50,000 – 25,00,000

= ₹ 43,50,000

Calculation of long term Debt and Reserve & Surplus

Now, Capital Earning ratio = 0.6

$$\text{So, } \frac{12\% \text{ long term Debt}}{\text{Equity Share Capital + Reserve \& Surplus}} = 0.6$$

$$\text{Or, } \frac{43,50,000 - \text{Reserve \& Surplus}}{25,00,000 + \text{Reserve \& Surplus}} = .6$$

Or, Reserve & Surplus = **₹ 17,81,250**

So, 12% long term debt = **₹ 25,68,750**

Balance Sheet of SKY Private Limited as at 31.03.2020

Liabilities		₹	Assets		₹
Share Capital		25,00,000	**Fixed assets**		
Reserve & Surplus		17,81,250	Opening WDV	32,23,529	
12% Long term debt		25,68,750	*Less:* Depreciation	4,83,529	27,40,000
Current Liabilities					
Creditors	55,89,600		**Current Assets**		
Provisions & outstanding expenses	12,60,400	68,50,000	Stock	34,93,500	
			Debtors	58,22,500	
			Cash and bank balance	16,44,000	1,09,60,000
Total		1,37,00,000			1,37,00,000

2. Alternative I = Raising Debt of ₹ 2.5 lakh + Equity of ₹ 27.5 lakh.

Alternative II = Raising Debt of ₹ 10 lakh + Equity of ₹20 lakh.

Alternative III = Raising Debt of ₹ 15 lakh + Equity of ₹ 15 lakh.

Calculation of Earnings per share (EPS):

(Amount in ₹)

Particulars	FINANCIAL ALTERNATIVES		
	Alternative I	**Alternative II**	**Alternative III**
Expected EBIT	5,00,000	5,00,000	5,00,000
Less: Interest (working note i)	(25,000)	(1,37,500)	(2,37,500)
Earnings before taxes	4,75,000	3,62,500	2,62,500
Less: Taxes @ 50%	(2,37,500)	(1,81,250)	(1,31,250)
Earnings after taxes (EAT)	2,37,500	1,81,250	1,31,250
Number of shares (working note ii)	13,750	10,000	9,375
Earnings per share (EPS)	**17.27**	**18.125**	**14.00**

Financing Alternative II (i.e. Raising debt of ₹10 lakh and issue of equity share capital of ₹ 20 lakh) is the option which maximises the earnings per share.

Working Notes:

(i) Calculation of interest on Debt **(Amount in ₹)**

Alternative I	(2,50,000 × 10%)		25,000
Alternative II	(2,50,000 × 10%)	25,000	
	(7,50,000 × 15%)	1,12,500	1,37,500
Alternative III	(2,50,000 × 10%)	25,000	
	(7,50,000 × 15%)	1,12,500	
	(5,00,000 × 20%)	1,00,000	2,37,500

(ii) Number of equity shares to be issued

Alternative I = ₹ 27,50,000/ ₹ 200 (Market Price of share)

= 13,750 shares

Alternative II = ₹ 20,00,000/ ₹ 200

= 10,000 shares

Alternative III = ₹ 15,00,000/ ₹ 160

= 9,375 shares

3. (i) Computation of Weighted Average Cost of Capital based on existing capital structure

Source of Capital	Existing Capital structure (₹)	Weights (a)	After tax cost of capital (%) (b)	WACC (%) (a) × (b)
Equity share capital (W.N.1)	3,00,00,000	0.652	10.00	6.52
11.5% Preference share capital	60,00,000	0.130	11.50	1.50
10% Debentures (W.N.2)	1,00,00,000	0.218	6.50	1.42
Total	4,60,00,000	1.000		9.44

Working Notes:

1. Cost of Equity Capital:

$$K_e = \frac{\text{Expected dividend}(D_1)}{\text{Current Market Price}(P_0)} + \text{Growth}(g)$$

$$= \frac{₹\,15}{₹\,300} + 0.05$$

= 10%

2. Cost of 10% Debentures

$$K_d = \frac{\text{Interest}(1-t)}{\text{Net proceeds}}$$

$$= \frac{₹\,1,00,000(1-0.35)}{₹\,1,00,00,000}$$

= 0.065 or 6.5%

(ii) Computation of Weighted Average Cost of Capital based on new capital structure

Source of Capital	New Capital structure (₹)	Weights (a)	After tax cost of capital (%) (b)	WACC (%) (a) x (b)
Equity share capital (W.N.3)	3,00,00,000	0.588	13.00	7.64
11.5% Preference share capital	60,00,000	0.118	11.50	1.36
10% Debentures (W.N.2)	1,00,00,000	0.196	6.50	1.27
12% Debentures (W.N.4)	50,00,000	0.098	7.80	0.76
Total	5,10,00,000	1.000		11.03

Working Notes:

3. Cost of Equity Capital:

$$K_e = \frac{₹\,20}{₹\,250} + 0.05$$

$$= 13\%$$

4. Cost of 12% Debentures

$$K_d = \frac{₹\,6,00,000(1-0.35)}{₹\,50,00,000}$$

$$= 0.078 \text{ or } 7.8\%$$

4. Calculation of Present Value of cash flows

Year	PV factor @ 10%	Project A		Project B	
		Cash flows (₹)	Discounted Cash flows	Cash flows (₹)	Discounted Cash flows
0	1.00	(2,00,000)	(2,00,000)	(2,00,000)	(2,00,000)
1	0.91	35,000	31,850	2,18,000	1,98,380
2	0.83	80,000	66,400	10,000	8,300
3	0.75	55,000(90,000-35,000)	41,250	10,000	7,500
4	0.68	75,000	51,000	4,000	2,720
5	0.62	20,000	12,400	3,000	1,860
Net Present Value			2,900		18,760

(i) The Payback period of the projects:

Project-A: The cumulative cash inflows up-to year 3 is ₹1,70,000 and remaining amount required to equate the cash outflow is ₹ 30,000 i.e. (₹ 2,00,000 – ₹ 1,70,000) which will be recovered from year-4 cash inflow. Hence, Payback period will be calculated as below:

$$3 \text{ years} + \frac{₹\,30,000}{₹\,75,000} = 3.4 \text{ years Or } 3 \text{ years } 4.8 \text{ months Or } 3 \text{ years } 4 \text{ months and } 24 \text{ days}$$

Project-B: The cash inflow in year-1 is ₹ 2,18,000 and the amount required to equate the cash outflow is ₹ 2,00,000, which can be recovered in a period less than a year. Hence, Payback period will be calculated as below:

$$\frac{₹\,2,00,000}{₹\,2,18,000} = 0.917 \text{ years Or } 11 \text{ months}$$

(ii) Discounted Payback period for the projects:

Project-A: The cumulative discounted cash inflows up-to year 4 is ₹ 1,90,500 and remaining amount required to equate the cash outflow is ₹ 9,500 i.e. (₹ 2,00,000 – ₹ 1,90,500) which will be recovered from year-5 cash inflow. Hence, Payback period will be calculated as below:

$$4 \text{ years} + \frac{₹\,9,500}{₹\,12,400} = 4.766 \text{ years Or } 4 \text{ years } 9.19 \text{ months Or } 4 \text{ years } 9 \text{ months and } 6 \text{ days}$$

Project-B: The cash inflow in year-1 is ₹1,98,380 and remaining amount required to equate the cash outflow is ₹ 1,620 i.e. (₹ 2,00,000 – ₹ 1,98,380) which will be recovered from year-2 cash inflow. Hence, Payback period will be calculated as below:

$$1 \text{ year} + \frac{₹\,1,620}{₹\,8,300} = 1.195 \text{ years Or } 1 \text{ Year } 2.34 \text{ months Or } 1 \text{ Year } 2 \text{ months and } 10 \text{ days.}$$

(iii) Desirability factor of the projects

$$\text{Desirability Factor (Profitability Index)} = \frac{\text{Discounted value Cash Inflows}}{\text{Discounted value of Cash Outflows}}$$

$$\textbf{Project A} = \frac{₹\,2,02,900}{₹\,2,00,000} = 1.01$$

$$\textbf{Project B} = \frac{₹\,2,18,760}{₹\,2,00,000} = 1.09$$

(iv) Net Present Value (NPV) of the projects:

Please refer the above table.

Project A- ₹ 2,900

Project B- ₹ 18,760

5 (a) (i) Degree of operating, financial and combined leverages at the current sales level-

$$\text{DOL} = \frac{\text{Contribution}}{\text{EBIT}}$$

$$= \frac{₹\,34,00,000 - ₹\,6,00,000}{₹\,22,00,000} = 1.27$$

$$\text{DFL} = \frac{\text{EBIT}}{\text{EBT}}$$

$$= \frac{₹\,22,00,000}{₹\,16,00,000} = 1.375$$

DCL = DOL × DFL = 1.27 × 1.38 = 1.75

(ii) Earnings per share at the new sales level

(Amount in ₹)

Particulars	Increase by 20%	Decrease by 20%
Sales level	40,80,000	27,20,000
Less: Variable expenses	7,20,000	4,80,000

Less: Fixed cost	6,00,000	6,00,000
Earnings before interest and taxes	27,60,000	16,40,000
Less: Interest	6,00,000	6,00,000
Earnings before taxes	21,60,000	10,40,000
Less: Taxes @35%	7,56,000	3,64,000
Earnings after taxes (EAT)	14,04,000	6,76,000
Number of equity shares	8,00,000	8,00,000
EPS	1.76	0.85

Working Notes:

Variable Costs = ₹ 6,00,000 (total cost - depreciation)

Variable Costs at:

(i) Sales level, ₹ 40,80,000 = ₹ 7,20,000 (increase by 20%)

(ii) Sales level, ₹ 27,20,000 = ₹ 4,80,000 (decrease by 20%)

(b) **Certainty Equivalents:** As per CIMA terminology, "An approach to dealing with risk in a capital budgeting context. It involves expressing risky future cash flows in terms of the certain cashflow which would be considered, by the decision maker, as their equivalent, that is the decision maker would be indifferent between the risky amount and the (lower) riskless amount considered to be its equivalent."

The certainty equivalent is a guaranteed return that the management would accept rather than accepting a higher but uncertain return. This approach allows the decision maker to incorporate his or her utility function into the analysis. In this approach a set of risk less cash flow is generated in place of the original cash flows.

6 **(a)** **Agency Problem and Agency Cost:** Though in a sole proprietorship firm, partnership etc., owners participate in management but incorporates, owners are not active in management so, there is a separation between owner/ shareholders and managers. In theory, managers should act in the best interest of shareholders however in reality, managers may try to maximise their individual goal like salary, perks etc., so there is a principal agent relationship between managers and owners, which is known as **Agency Problem**. In a nutshell, Agency Problem is the chances that managers may place personal goals ahead of the goal of owners. Agency Problem leads to Agency Cost. **Agency cost** is the additional cost borne by the shareholders to monitor the manager and control their behaviour to maximise shareholders wealth. Generally, Agency Costs are of four types (i) monitoring (ii) bonding (iii) opportunity (iv) structuring.

(b) **Commercial Paper:** A Commercial Paper is an unsecured money market instrument issued in the form of a promissory note. The Reserve Bank of India introduced the commercial paper scheme in the year 1989 with a view to enabling highly rated corporate borrowers to diversify their sources of short- term borrowings and to provide an additional instrument to investors. Subsequently, in addition to the Corporate, Primary Dealers and All India Financial Institutions have also been allowed to issue Commercial Papers. Commercial papers are issued in denominations of ₹ 5 lakhs or multiples thereof and the interest rate is generally linked to the yield on the one-year government bond.

All eligible issuers are required to get the credit rating from Credit Rating Information Services of India Ltd, (CRISIL), or the Investment Information and Credit Rating Agency of India Ltd (ICRA) or the Credit Analysis and Research Ltd (CARE) or the FITCH Ratings India Pvt. Ltd or any such other credit rating agency as is specified by the Reserve Bank of India.

(c) Billing Float: An invoice is the formal document that a seller prepares and sends to the purchaser as the payment request for goods sold or services provided. The time between the sale and the mailing of the invoice is the billing float.

Mail Float: This is the time when a cheque is being processed by post office, messenger service or other means of delivery.

OR

Some of the factors which need to be considered while planning for working capital requirement are-

(i) Cash: Identify the cash balance which allows for the business to meet day- to-day expenses, but reduces cash holding costs.

(ii) Inventory: Identify the level of inventory which allows for uninterrupted production but reduces the investment in raw materials and hence increases cash flow; the techniques like Just in Time (JIT) and Economic order quantity (EOQ) are used for this.

(iii) Receivables: Identify the appropriate credit policy, i.e., credit terms which will attract customers, such that any impact on cash flows and the cash conversion cycle will be offset by increased revenue and hence Return on Capital (or vice versa). The tools like Discounts and allowances are used for this.

(iv) Short-term Financing Options: Inventory is ideally financed by credit granted by the supplier; dependent on the cash conversion cycle, it may however, be necessary to utilize a bank loan (or overdraft), or to "convert debtors to cash" through "factoring" in order to finance working capital requirements.

(v) Nature of Business: For e.g. in a business of restaurant, most of the sales are in Cash. Therefore, need for working capital is very less.

(vi) Market and Demand Conditions: For e.g. if an item's demand far exceeds its production, the working capital requirement would be less as investment in finished goods inventory would be very less.

(vii) Technology and Manufacturing Policies: For e.g. in some businesses the demand for goods is seasonal, in that case a business may follow a policy for steady production through out over the whole year or instead may choose policy of production only during the demand season.

(viii) Operating Efficiency: A company can reduce the working capital requirement by eliminating waste, improving coordination etc.

(ix) Price Level Changes: For e.g. rising prices necessitate the use of more funds for maintaining an existing level of activity. For the same level of current assets, higher cash outlays are required. Therefore, the effect of rising prices is that a higher amount of working capital is required.

7. (a) S= I

-10 + 0.2Y = 50

0.2Y = 50+ 10

Y = 300 crore

C= Y- S

Where S= -10 + 0.2 (300) = 50

C= 300-50 = 250 crore

With the increase in investment by ₹ 5 crores, the new investment will become equal to ₹ 55 crores.

S= I

-10 + 0.2Y = 55

Y= 325 crores

C= 270 crores

(b) No, A pure public good is non-rivalrous and non-excludable in nature therefore education and health services are not pure public goods; rather they are quasi-public goods that possess nearly all of the qualities of the private goods and some of the benefits of public good. It is clearly possible to exclude people who do not pay from availing these services

(c) Measurement of money supply is essential from a monetary policy perspective because it enables a framework to evaluate whether the stock of money in the economy is consistent with the standards for price stability, to understand the nature of deviations from this standard and to study the causes of money growth.

(d) Sanitary and Phyto -Sanitary (SPS) measures are applied to protect human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease-causing organisms and to protect biodiversity. These include ban or prohibition of import of certain goods, all measures governing quality and hygienic requirements, production processes, and associated compliance assessments. For example; prohibition of import of poultry from countries affected by avian flu, meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods etc.

8. (a) Market power is an important factor that contributes to inefficiency due to higher prices than competitive prices. Because of the social costs imposed by monopoly, governments intervene by establishing rules and regulations designed to promote competition and prohibit actions that are likely to restrain competition. Policy options also include price regulation in the form of setting maximum prices that firms can charge based on the firm's variable costs, past prices, and possible inflation and productivity growth. These are some methods by which the government ensures that market does not create distortions.

(b) Financial assets other than money are also performing the function of store of value. Just as money has, the financial assets have fixed nominal value over time and represent generalized purchasing power. Therefore, money is not a unique store of value.

(c) Goods produced by each country

Country	Shirts	Trousers
China	1000	300
India	300	200

Each country has 6000 hours of labour and uses 3000 hours each for both the goods. Therefore, the number of hours spent per unit on each good

Country	Shirts	Trousers
China	3	10
India	10	15

Since China produces both goods in less time, it has absolute advantage in both shirts and trousers.

Comparative advantage: Comparing the opportunity costs of both goods we have

China

Opportunity cost of Shirts 3/10 = 0.3

Opportunity cost of Trousers 10/3 =3.33

India

Opportunity cost of Shirts 10/15 = 0.67

Opportunity cost of Trousers 15/10 =1.5

For producing shirts

China has lower opportunity cost for producing shirts, therefore China has comparative advantage

For producing Trousers

India has lower opportunity cost for producing Trousers, therefore India has comparative advantage.

9. (a) GDP_{MP} = Personal consumption expenditure + Gross investment (Gross business fixed investment + inventory investment) + Gross residential construction investment + Gross public investment + Government purchases of goods and services + Net Exports (exports-imports)

GDP_{MP} = 7500 + 775 + 700 + 400 + 1800 + 150

= 11325 crores

NNP_{FC} (National Income) = GNP_{FC} – Depreciation

Where $GNP_{FC} = GNP_{MP}$ - Indirect Taxes

And $GNP_{MP} = GDP_{MP}$ + Net factor income from abroad

$\therefore$ GNP_{MP} = 11325 – 75 = 11250 crores

GNP_{FC} = 11250 – 150 = 11100 crores

NNP_{FC} (National Income) = 11100 – 100 = 11000 crores

(b) Near public good (for e.g. education, health services) possess nearly all of the qualities of the private goods and some of the benefits of public good. It is easy to keep people away from them by charging a price or fee. However, it is undesirable to keep people away from such goods because the society would be better off if more people consume them. This particular

characteristic namely, the combination of virtually infinite benefits and the ability to charge a price results in some near public goods being sold through markets and others being provided by government. As such, people argue that these should not be left to the market alone.

(c) Cash Reserve Ratio (CRR) refers to the fraction of the total net demand and time liabilities (NDTL) of a scheduled commercial bank in India which it should maintain as cash deposit with the Reserve Bank. Higher the CRR, lower is the credit creation capacity of banks. Reducing CRR during deflation results in expansion of credits by banks and increases the supply of money available in the economy. Increasing the CRR during inflation helps in containing credit expansion.

10. (a) (i) Common access resources or common pool resources are a special class of impure public goods which are non-excludable as people cannot be excluded from using them. These are rival in nature and their consumption lessens the benefits available for others. Since price mechanism does not apply to 'common resources', producers and consumers do not pay for these resources and therefore, they overuse them and cause their depletion and degradation.

(ii) The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual is known as the free rider problem. In other words, free riding is 'benefiting from the actions of others without paying'. Example is national defence. The government provides defence for all its citizens regardless of much they contribute in taxes. Another example is Wikipedia- few people contribute (financially or otherwise), but everyone gets to use it.

(b) Leakages are withdrawals from the economy as a result of taxation, spending on imports, and monetary savings. It reduces the flow of income. On the other hand, Injections are additions and contributions to the economy through government spending, money from exports, and investments made by firms. Injections increase the flow of income.

(c) Trade-Related Investment Measures (TRIMs) is an agreement on trade related investment measures which specifies the rule that are applicable to domestic regulation a country applies to foreign investors. The agreement is applicable to all the members of WTO. It expands disciplines governing investment measures in relation to cross-border investments by stipulating that countries receiving foreign investments shall not impose investment measures such as requirements, conditions and restrictions inconsistent with the provisions of the principle of national treatment and general elimination of quantitative restrictions. On the other hand, Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement among various members of WTO on intellectual property rights. It is one of the most comprehensive multilateral agreements on intellectual rights. It stipulates most-favoured-nation treatment and national treatment for intellectual properties, such as copyright, trademarks, geographical indications, industrial designs, patents, IC layout designs and undisclosed information.

11. (a) According to Fisher, quantity theory of money demonstrate that there is strong relationship between money and price level and the quantity of money is the main determinant of the price level or the value of money**.** In other words, changes in the general level of commodity prices or changes in the value or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation.

Fisher's version, also termed as 'equation of exchange' or 'transaction approach' is formally stated as follows:

$$MV=PT$$

Where, M= the total amount of money in circulation (on an average) in an economy, V = transactions velocity of circulation i.e. the average number of times across all transactions a unit of money(say Rupee) is spent in purchasing goods and services, P = average price level (P= MV/T), T = the total number of transactions.

Later, Fisher extended the equation of exchange to include demand (bank) deposits (M') and their velocity (V') in the total supply of money. Thus, the expanded form of the equation of exchange becomes:

$$MV + M'V' = PT$$

Where M' = the total quantity of credit money, V' = velocity of circulation of credit money. The total supply of money in the community consists of the quantity of actual money (M) and its velocity of circulation (V). Velocity of money in circulation (V) and the velocity of credit money (V') remain constant. T is a function of national income.

Since full employment prevails, the volume of transactions T is fixed in the short run. Briefly put, the total volume of transactions (T) multiplied by the price level (P) represents the demand for money. The demand for money (PT) is equal to the supply of money (MV + M'V)'. In any given period, the total value of transactions made is equal to PT and the value of money flow is equal to MV+ M'V'.

Fisher did not specifically mention anything about the demand for money; but the same is embedded in his theory as dependent on the total value of transactions undertaken in the economy. Thus, there is an aggregate demand for money for transactions purpose and more the number of transactions people want, greater will be the demand for money. The total volume of transactions multiplied by the price level (PT) represents the demand for money.

(b) **(i)** 1. Expenditure by government on providing free education is included while estimating national income, as it is part of government final consumption expenditure. Since the service provided by the government are not sold in the market, the only way they can be valued in money terms is by adding up the money spent by the government in the production of the service.

2. Capital gain on sale of the house is not be included while estimating national income, as it is already included in the year when it is built and to avoid double counting which means counting value of the same commodity more than once.

3. It is a part of national wealth and is not included in national income. However, that part of mineral wealth which has been extracted during the current year will be included in national income under the product method.

(ii) Contractionary monetary policy is a policy used by monetary authorities to contract the money supply and reduce economic activity by raising interest rates to slow the rate of borrowing by companies, individuals and banks.

OR

Currency is adjusted periodically in small amounts at a fixed; pre announced rate in response to changes in certain quantitative indicators is called Crawling Peg. On the other hand, when currency is maintained within certain fluctuation margins say (±1-2 %) around a central rate that is adjusted periodically is Crawling Bands.