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SECTION –A

ANSWER – 1

ANSWER -A

MNOPLtd.

Balance Sheet

Liabilities	Rs.	Assets	Rs.
Equity share capital	1,00,000	Fixed assets	60,000
Current debt	24,000	Cash (balancing figure)	60,000
Long term debt	36,000	Inventory	40,000
	1,60,000		1,60,000

Working Notes

1. Total debt = 0.60 x Equity share capital = 0.60 X Rs. 1,00,000 = Rs.60,000

Further, Current debt to total debt = 0.40. So, current debt = 0.40 x Rs.60,000 = Rs.24,000,

Long term debt = Rs.60,000 - Rs.24,000= Rs. 36,000

2. Fixed assets = 0.60 x Equity share Capital = 0.60 x Rs. 1,00,000 = Rs.60,000

3. Total assets to turnover = 2 Times : Inventory turnover = 8 Times

Hence, Inventory /Total assets = 2/8=1/4, Total assets = Rs.1,60,000

Therefore Inventory = Rs. 1,60,000/4 = Rs. 40,000

(5 MARKS)

ANSWER –B

Market price per share by

(i) Walter's formula:
$$P = \frac{D + \frac{r}{K_e}(E - D)}{K_e}$$

$$P = \frac{6 + \frac{0.25}{0.20}(10 - 6)}{0.20}$$

P = Rs.55

(ii) **Gordon's formula (Dividend Growth model):** When the growth is incorporated in earnings and dividend, the present value of market price per share (P_0) is determined as follows:

Gordon's theory:

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

Where,

P_0 = Price per share

E_1 = Earnings per share

b = Retention ratio; ($1 - b$ = Payout ratio)

K_e = Cost of capital

r = IRR

br = Growth rate (g)

$$P_0 = \frac{10(1-0.60)}{0.20 - (0.60 \times 0.25)} = \text{Rs. } \frac{4}{0.05} = \text{Rs. } 80$$

(5 MARKS)

ANSWER –C

Calculation of Leverages

Particulars	(Rs.)
Sales	60,00,000
Less: Variable Cost $\left(\text{Sales} \times \frac{100}{150} \right)$	40,00,000
Contribution	20,00,000
Less: Fixed Cost	5,00,000
EBIT	15,00,000
Less: Interest on Debentures	3,30,000
EBT	11,70,000

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{\text{Rs. } 20,00,000}{\text{Rs. } 15,00,000} = 1.3333$$

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} = \frac{\text{Rs. } 15,00,000}{\text{Rs. } 11,70,000} = 1.2821$$

$$\text{Combined Leverage} = \text{OL} \times \text{FL} \text{ or } \frac{\text{Contribution}}{\text{EBT}}$$

$$= 1.3333 \times 1.2821 \text{ or } \frac{\text{Rs. } 20,00,000}{\text{Rs. } 11,70,000} = 1.7094$$

ANSWER –D

Statement showing the determination of the risk adjusted net presentvalue

Projects	Net cash outlays	Coefficient of variation	Risk adjusted discount rate	Annual cash inflow	PV factor 1-5 years	Discounted cash inflow	Net present value
	(Rs.)			(Rs.)		(Rs.)	(Rs.)
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii) = (v) X (vi)	(viii) = (vii) – (ii)
X	2,10,000	1.20	16%	70,000	3.274	2,29,180	19,180
Y	1,20,000	0.80	14%	42,000	3.433	1,44,186	24,186
Z	1,00,000	0.40	12%	30,000	3.605	1,08,150	8,150

(5 MARKS)

ANSWER – 2**ANSWER –A**

Particulars	Present units = 60000 (5000 x 12)	Proposed = 45000 (60,000 – 25%)	(1 Marks)
Sales @ 200	1,20,00,000	90,00,000	(1 Mark)
(-) Variable cost @ 150	(90,00,000)	(67,50,000)	(1 Mark)
(-) Bad Debts	(12,00,000)	-	(1 Mark)
(-) Agency fees	-	(5,00,000)	(1 Mark)
(-) Cost of Investment in Debtors	18,00,000 (3,37,500) (90,00,000 x 3/12 x 15%)	17,50,000 (2,53,125) (67,50,000 x 3/12 x 15%)	(1 Mark)
Net Benefit	14,62,500	14,96,875	

Advice: It is advisable to consider proposal of credit agency as it will give higher net benefit.**ANSWER –B****Process of Debt Securitisation:**

- The origination function* – A borrower seeks a loan from a finance company or a bank. The credit worthiness of borrower is evaluated and contract is entered into with repayment schedule structured over the life of the loan.
- The pooling function* – Similar loans on receivables are clubbed together to create an underlying pool of assets. The pool is transferred in favour of Special purpose Vehicle (SPV), which acts as a trustee for investors.
- The securitisation function* – SPV will structure and issue securities on the basis of asset pool. The securities carry a coupon and expected maturity

which can be asset-based/mortgage based. These are generally sold to investors through merchant bankers. Investors are – pension funds, mutual funds, insurance funds.

The process of securitization is generally without recourse i.e. investors bear the credit risk and issuer is under an obligation to pay to investors only if the cash flows are received by him from the collateral. The benefits to the originator are that assets are shifted off the balance sheet, thus giving the originator recourse to off -balance sheet funding.

(4 MARKS)

ANSWER – 3

Note: Here nature of project is not specified, so it is taken to be indivisible project.

Project	Cost	PVCI	NPO	Rank
1	2,000	2,420	420	5
2	12,000	15,120	3,120	1
3	10,000	11,700	1,700	2
4	4,000	4,520	520	4
5	5,000	6,000	1,000	3
6	1,000	1,190	190	6

(5 Marks)

Feasible Options:

	Projects	Cost	NPV
Option 1	2	12,000	3,120
	4	4,000	520
		16,000	3,640
Option 2	1	2,000	420
	3	10,000	1,700
	4	4,000	520
		16,000	2,640
Option 3	1	2,000	420
	2	12,000	3,120
	6	1,000	190
		15,000	3,730
Option 4	3	10,000	1,700
	5	5,000	1,000
	6	1,000	190
		16,000	2,890

(1 Mark)

(1 Mark)

(1 Mark)

(1 Mark)

Advice:

It is advisable to consider Project 1, 2, and 6 as it will give higher NPV.

(1 Mark)

ANSWER – 4

Calculation of Earnings per share under the three options:

Particulars	Options		
	Option I: Issue Equity shares only	Option II: Issue 16% Debentures only	Option III: Issue Equity Shares and 16% Debentures of equal amount
Number of Equity Shares (nos):			
- Existing	10,00,000	10,00,000	10,00,000
- Newly issued	2,00,000	---	50,000
	$\left(\frac{\text{Rs. } 50,00,000}{\text{Rs. } (10 + 15)} \right)$		$\left(\frac{\text{Rs. } 25,00,000}{\text{Rs. } (10 + 40)} \right)$
Total	12,00,000	10,00,000	10,50,000
16% Debentures Rs.	---	50,00,000	25,00,000
	Rs.	Rs.	Rs.
Profit Before Interest and Tax:			
- Existing pre-tax profit	60,00,000	60,00,000	60,00,000
- From new projects	40,00,000	40,00,000	40,00,000
	1,00,00,000	1,00,00,000	1,00,00,000
Less: Interest on 16% Debentures	---	8,00,000	4,00,000
		(16% Rs. 50,00,000)	(16% x Rs. 25,00,000)
Profit Before Tax	1,00,00,000	92,00,000	96,00,000
Tax at 50%	50,00,000	46,00,000	48,00,000
Profit After Tax	50,00,000	46,00,000	48,00,000
Earnings Per Share (EPS)	4.17	4.60	4.57
$\left(\frac{\text{PAT}}{\text{No. of Shares}} \right)$	$\left(\frac{\text{Rs. } 50,00,000}{12,00,000} \right)$	$\left(\frac{\text{Rs. } 46,00,000}{10,00,000} \right)$	$\left(\frac{\text{Rs. } 48,00,000}{10,50,000} \right)$

Advise: Option II i.e. issue of 16% Debentures is most suitable to maximize the earnings per share

(10 MARKS)

ANSWER – 5

Firm	A	B	C	D
EBIT	Rs. 2,00,000	Rs. 3,00,000	Rs. 5,00,000	Rs. 6,00,000
Less: Interest	Rs. 20,000	Rs. 60,000	Rs. 2,00,000	Rs. 2,40,000
EBT = Net Income	Rs. 1,80,000	Rs. 2,40,000	Rs. 3,00,000	Rs. 3,60,000
K_e (given)	12%	16%	15%	18%
Value of Equity (E) = $\frac{EBT}{K_e}$	Rs. 15,00,000	Rs. 15,00,000	Rs. 20,00,000	Rs. 20,00,000
Value of Debt (D) = $\frac{\text{Interest}}{K_d}$	Rs. 2,00,000	Rs. 6,00,000	Rs. 20,00,000	Rs. 24,00,000
[Note: K_d - 10%]				

Value of Firm (V) = (E + D)	Rs.17,00,000	Rs.21,00,000	Rs.40,00,000	Rs.44,00,000
$K_o - WACC = \frac{EBIT}{\text{Value of firm}}$	11.76%	14.29%	12.50%	13.64%

(6 MARKS)

When Firm A borrows Rs. 2 Lakhs at 10% interest rate, to repay Equity Capital, the effect on WACC will be as under -

Particulars	Before	After
EBIT (given)	Rs. 2,00,000	Rs. 2,00,000
Less: Interest	Rs. 20,000	Rs. 40,000
EBT = Net Income	Rs. 1,80,000	Rs. 1,60,000
K_e (given)	12%	12%
Value of Equity (E) = $\frac{EBT}{K_e}$	Rs. 15,00,000	Rs. 13,33,333
Value of Debt (D) = $\frac{\text{Interest}}{K_d}$ [Note: $K_d = 10\%$]	Rs. 2,00,000	Rs. 4,00,000
Value of Firm (V) = (E + D)	Rs. 17,00,000	Rs. 17,33,333
$K_o - WACC = \frac{EBIT}{\text{Value of Firm}}$	11.76%	11.54%

Under Net Income Approach, increase in Debt content leads to increase in Value of Firm & decrease in WACC.

(4 MARKS)

ANSWER – 6

ANSWER – A

A firm's financial management may often have the following as their objectives:

- (i) The maximization of firm's profit.
- (ii) The maximization of firm's value /wealth.

The maximisation of profit is often considered as an implied objective of a firm. To achieve the aforesaid objective various type of financing decisions may be taken. Options resulting into maximisation of profit may be selected by the firm's decision makers. They even sometime may adopt policies yielding exorbitant profits in short run which may prove to be unhealthy for the growth, survival and overall interests of the firm. The profit of the firm in this case is measured in terms of its total accounting profit available to its shareholders.

The value/wealth of a firm is defined as the market price of the firm's stock. The market price of a firm's stock represents the focal judgment of all market participants as to what the value of the particular firm is. It takes into account present and prospective future earnings per share, the timing and risk of these earnings, the dividend policy of the firm and many other factors that bear upon the market price of the stock.

The value maximisation objective of a firm is superior to its profit maximisation objective due to following reasons.

1. The value maximization objective of a firm considers all future cash flows, dividends, earning per share, risk of a decision etc. whereas profit maximization objective does not consider the effect of EPS, dividend paid or any other returns to shareholders or the wealth of the shareholder.
2. A firm that wishes to maximize the shareholders wealth may pay regular dividends whereas a firm with the objective of profit maximization may refrain from dividend payment to its shareholders.
3. Shareholders would prefer an increase in the firm's wealth against its generation of increasing flow of profits.
4. The market price of a share reflects the shareholders expected return, considering the long- term prospects of the firm, reflects the differences in timings of the returns, considers risk and recognizes the importance of distribution of returns.

The maximisation of a firm's value as reflected in the market price of a share is viewed as a proper goal of a firm. The profit maximisation can be considered as a part of the wealth maximisation strategy.

(4 MARKS)

ANSWER – B

Bridge finance refers, normally, to loans taken by the business, usually from commercial banks for a short period, pending disbursement of term loans by financial institutions, normally it takes time for the financial institution to finalise procedures of creation of security, tie-up participation with other institutions etc. even though a positive appraisal of the project has been made. However, once the loans are approved in principle, firms in order not to lose further time in starting their projects arrange for bridge finance. Such temporary loan is normally repaid out of the proceeds of the principal term loans. It is secured by hypothecation of moveable assets, personal guarantees and demand promissory notes. Generally rate of interest on bridge finance is higher as compared with that on term loans.

(4 MARKS)

ANSWER – C

Concentration Banking: In concentration banking the company establishes a number of strategic collection centres in different regions instead of a single collection centre at the head office. This system reduces the period between the time a customer mails in his remittances and the time when they become spendable funds with the company. Payments received by the different collection centers are deposited with their respective local banks which in turn transfer all surplus funds to the concentration bank of head office.

(2 MARKS)

SECTION –B

ANSWER – 7

ANSWER – A

NI = GDP (MP) – Depreciation + NFIA - Net Indirect Tax

Where GDP(MP) = Value of output- intermediate

consumption Value of Output = Sales+ change in stock

$$= 700 + (400 - 500)$$

$$= 600$$

$$\text{GDP (MP)} = 600 - 350 = 250$$

Therefore NI = 250 - 150 + 30 - (110 - 50)

$$= 70 \text{ Crore}$$

(3Marks)

ANSWER – B

A Social Good is defined as one which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtraction from any other individual's consumption of that good. Similarity between Social Goods and Common Pool Resources is that both are non-excludable whereas dissimilarity is seen in their nature that is Social Goods are non-rival which means that the use of these goods does not reduce the availability for others, while Common Pool Resources are rival in nature which means that the use of these resources reduce the availability for others.

(2Marks)

ANSWER – C

The Marginal Standing Facility (MSF) refers to the facility under which 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. 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. Banks can borrow through MSF on all working days except Saturdays, between 7.00 pm and 7.30 pm, in Mumbai. The minimum amount which can be accessed through MSF is Rs. 1 crore and more will be available in multiples of Rs. 1 crore. The MSF would be the last resort for banks once they exhaust all borrowing options including the liquidity adjustment facility on which the rates are lower compared to the MSF.

(3Marks)

ANSWER – D

Specific tariff is an import duty which levied as a fixed charge per unit of the good imported.

Therefore amount in total tariff revenue = 2000 * 15% = Rs. 300/-

In this case, total Rs. 300/- is collected, whether the price of a sunglass is of Rs. 1000 or Rs. 2000 for different brand.

(2Marks)

ANSWER – 8

ANSWER – A

(i) $M_3 = M_1 + \text{net time deposits with the banking system}$

$M_1 = \text{Currency notes and coins with the public} + \text{demand deposits of banks} + \text{other deposits with RBI}$

Therefore, Net time deposits with the banking system = $M_3 - M_1$

$450000 - 3000 - 100000 - 100000$

= Rs. 247000 Crore

$M_4 = M_3 + \text{total deposits with the post office savings organization (excluding National savings Certificate)}$

$M_4 = 450000 + 20000$

$M_4 = 470000 \text{ Crore}$

(3Marks)

(ii) The transaction demand for money according to Keynes is interest-inelastic; whereas Baumol and Tobin show that money held for transaction purposes is interest elastic.

(2Marks)

ANSWER – B

Economic efficiency increases due to quantitative and qualitative benefits of extended division of labour, economies of large scale production, betterment of manufacturing capabilities, increased competitiveness and profitability by adoption of cost reducing technology and business practices and decrease in the likelihood of domestic monopolies. Efficient deployment of productive resources - natural, human, industrial and financial resources ensures productivity gains.

Mercantilist argued that trade is a zero sum game. Mercantilism advocated maximizing exports in order to bring in more precious metals and minimizing imports through the state imposing very high tariffs on foreign goods. This view argues that trade is a 'zero-sum game', with winners who win does so only at the expense of losers and one country's gain is equal to another country's loss, so that the net change in wealth or benefits among the participants is zero.

(3Marks)

ANSWER – C

Yes, Countries like India are unable to estimate their national income wholly by one method. There are various sectors in an economy and national income generated by these sectors is estimated by using different methods. For example, in agricultural sector, net value added is estimated by the production method, in small scale sector net value added is estimated by the income method and in the construction sector netvalue added is estimated by the expenditure method.

(2Marks)

ANSWER – 9

ANSWER – A

Market power is an important factor that contributes to inefficiency because it results in higher prices than competitive prices. In addition, market power also tends to restrict output and leads to deadweight loss. 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. These legislations differ from country to country. For example, in India, we have the Competition Act, 2002(as amended by the Competition (Amendment) Act, 2007) to promote and sustain competition in markets. Such legislations generally aim at prohibiting contracts, combinations and collusions among producers or traders which are in restraint of trade and other anticompetitive actions such as predatory pricing. On the contrary, some of the regulatory responses of government to incentive failure tend to create and protect monopoly positions of firms that have developed unique innovations. For example, patent and copyright laws grant exclusive rights of products or processes to provide incentives for invention and innovation. Policy options for limiting market power also include price regulation in the form of setting maximum prices that firms can charge. Price regulation is most often used for natural monopolies that can produce the entire output of the market at a cost that is lower than what it would be if there were several firms. If a firm is a natural monopoly, it is more efficient to permit it serve the entire market rather than have several firms who compete each other. Examples of such natural monopoly are electricity, gas and water supplies. In some cases, the government's regulatory agency determines an acceptable price, so as to ensure a competitive or fair rate of return. This practice is called rate-of- return regulation. Another approach to regulation is setting price-caps based on the firm's variable costs, past prices, and possible inflation and productivity growth.

(5Marks)

ANSWER – B

The deposit expansion multiplier describes the amount of additional money created by commercial bank through the process of lending the available money it has in excess of the central bank's reserve requirements. The deposit expansion multiplier is, thus inextricably tied to the bank's reserve requirement. This measure tells us how much new money will be created by the banking system for a given increase in the high powered money. It reflects a bank's ability to increase the money supply. The deposit expansion multiplier is the reciprocal of the required reserve ratio.

If reserve ratio is 20%, then credit multiplier = $1/0.20 = 5$.

The deposit expansion multiplier = $1/ \text{Required Reserve Ratio}$

(3Marks)

ANSWER – C

Given, MPC = 0.8

Planned to increase National Income by= Rs. 3000 Crore

$$K = \frac{1}{1 - MPC}$$
$$\frac{1}{1 - 0.8} = 5$$

We also know $K = \frac{\Delta Y}{\Delta I}$

$$\text{So } 5 = \frac{3000}{\Delta I}$$

$$\Delta I = 600 \text{ Crore.}$$

(2Marks)

ANSWER – 10

ANSWER – A

The wide-reaching collection of markets and institutions that handle the exchange of foreign currencies is known as the foreign exchange market. Being an over-the-counter market, it is not a physical place; rather, it is an electronically linked network of big banks, dealers and foreign exchange brokers who bring buyers and sellers together.

The major participants in the exchange market are central banks, commercial banks, governments, foreign exchanged dealers, multinational corporations that engage in international trade and investments, non-bank financial institutions such as asset management firms, insurance companies, brokers, arbitrageurs and speculators. The central banks participate in the foreign exchange markets, not to make profit, but essentially to contain the volatility of exchange rate to avoid sudden and large appreciation or depreciation of domestic currency and to maintain stability in exchange rate in keeping with the requirements of national economy. If the domestic currency fluctuates excessively, it causes panic and uncertainty in the business world. Commercial banks participate in the foreign exchange market either on their own account or for their clients. When they trade on their own account, banks may operate either as speculators or arbitrageurs/or both. The bulk of currency transactions occur in the inter-bank market in which the banks trade with each other. Foreign exchange brokers participate in the market as intermediaries between different dealers or banks. Arbitrageurs profit by discovering price differences between pairs of currencies with different dealers or banks. Speculators, who are bulls or bears, are deliberate risk-takers who participate in the market to make gains which result from unanticipated changes in exchange rates. Other participants in the exchange market are individuals who form only a very insignificant fraction in terms of volume and value of transactions.

(5Marks)

ANSWER – B

The difference between the aggregate amount that a country's citizens and companies earn abroad, and the aggregate amount that foreign citizens and overseas companies earn in that country.

(3Marks)

ANSWER – C

$$\text{Government spending multiplier} = \frac{1}{1-MPC} = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$$

Net effect of Rs 100 crore spending is Rs. 100 crore* 4 = Rs. 400 crore

(2Marks)

ANSWER – 11

ANSWER – A

(i) In an open economy, the main advantages of a fixed rate regime are, firstly, a fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs that can impede international flow of trade and investments. A fixed exchange rate can thus greatly enhance international trade and investment. Secondly, a fixed exchange rate system imposes discipline on a country's monetary authority and therefore is more likely to generate lower levels of inflation. Thirdly, the government can encourage greater trade and investment as stability encourages investment. Fourthly, exchange rate peg can also enhance the credibility of the country's monetary policy. And lastly, in the fixed or managed floating (where the market forces are allowed to determine the exchange rate within a band) exchange rate regimes, the central bank is required to stand ready to intervene in the foreign exchange market and, also to maintain an adequate amount of foreign exchange reserves for this purpose. **(3Marks)**

(ii) The autonomous expenditure multiplier in a four sector model includes the effects of foreign transactions and is stated as $\frac{1}{1-b+v}$ where v is the propensity to import which is greater than zero. The greater the value of v , the lower will be the autonomous expenditure multiplier. **(2Marks)**

ANSWER – B

(i) Non-discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are 'built-in' fiscal mechanisms that operate automatically to reduce the expansions and contractions of the business cycle. It occurs through automatic adjustments in government expenditures and taxes without any deliberate governmental action i.e. by limiting the increase in disposable income during an expansionary phase and limiting the decrease in disposable income during the contraction phase of the business cycle. **(3Marks)**

(ii) The demand for money is a decision about how much of one's given stock of wealth should be held in the form of money rather than as other assets such as bonds. Demand for money is actually demand for liquidity and a demand to store value. **(2Marks)**

Or

Regional Trade Agreements (RTAs) are defined as grouping of countries, which are formed under the objective of reducing barriers to trade between member countries; not necessarily belonging to the same geographical region.