SUGGESTED SOLUTION

CA INTERMEDIATE

SUBJECT- F.M. AND ECO

Test Code - PIN 5073

BRANCH - () (Date :)

Head Office :Shraddha, 3rd Floor, Near Chinai College, Andheri (E), Mumbai – 69.Tel : (022) 26836666

SECTION – A (60 MARKS)

ANSWER-1
ANSWER-A

Firm A Ltd. (pure equity): unlevered firm: EAT = EBIT (1 –t)

= EBT × 0.7 = Rs. 2,50,000 × 0.7 = Rs. 1,75,000

(since, EBIT = EBT as there is no debt)

Value of unleveredfirmA = EAT / Equity capitalization rate

= Rs.1,75,000/ 20%

= Rs. 8,75,000

Firm B Ltd. (levered):

Value of levered firm = Value of equity + Value of debt

= Rs. 8,75,000 + (10,00,000) × 0.3

= Rs. 11,75,000

(2.5 MARKS*2 = 5 MARKS)

ANSWER-B

Current Market price of shares (applying Walter's Model)

- The EPS of the firm is ` 5 (i.e., Rs 10,00,000 / 2,00,000).
- Rate of return on Investment (r) = 20%.
- The Price Earnings (P/E) Ratio is given as 10, so capitalization rate (K_e), may be taken at the inverse of P/E Ratio. Therefore, K_e is 10% or .10 (i.e., 1/10).
- The firm is distributing total dividends of ` 6,00,000 among 2,00,000 shares, giving a dividend per share of `3.

The value of the share as per Walter's model may be found as follows: Walter's model is given by-

$$P = \frac{D+\frac{r}{Ke}(E-D)}{Ke}$$

Where,

P = Market price per share.

E = Earnings per share = ` 5

D = Dividend per share = ` 3

R = Return earned on investment = 20 %

K_e = Cost of equity capital = 10% or .10

$$P = \frac{3+\frac{0.20}{0.10}(5-3)}{0.10} = Rs.70$$

Current Market Price of shares can also be calculated as follows:

$$\text{Price Earnings (P/E) Ratio} = \frac{Market\ price\ per\ shares}{Earnings\ per\ share}$$

$$\text{Or } 10 = \frac{Market\ price\ per\ shares}{Rs.1000000/200000}$$

$$\text{Or, } 10 = \frac{Market\ price\ per\ shares}{Rs.5}$$

Market Price of Share = `50

(ii) Capitalization rate (K_e) of its risk class is 10% or .10 (i.e., 1/10).

(iii) Optimum dividend pay-out ratio

According to Walter's model when the return on investment is more than the cost of equity capital (10%), the price per share increases as the dividend pay-out ratio decreases. Hence, the optimum dividend pay-out ratio in this case is nil or 0 (zero).

(iv) Market price per share at optimum dividend pay-out ratio

At a pay-out ratio of zero, the market value of the company's share will be:

$$P = \frac{0+\frac{0.20}{0.10}(5-0)}{0.10} = Rs.100$$

(5 MARKS)

ANSWER-C

EVALUATION OF PROPOSALS

	Present Plan (20,000 units)	Proposed Plan (22,000 units)
Sales	Rs.20,00,000	Rs.22,00,000
-Variable costs (Rs. 88 per unit)	17,60,000	19,36,000
-Fixed costs (20,000 units X Rs. 4)	80,000	80,000
Net Profit	1,60,000	1,84,000
Investment cost	27,600	50,400
Income	1,32,400	1,33,600

The firm should relax its credit policy as it increases the profit by Rs. 1,200.

(3 MARKS)

Working Notes:

The investment costs have been calculated as follows :

	Present Plan	Proposed Plan
O' of sales (Variable + Fixed cost)	Rs.18,40,000	Rs.20,16,000
Average daily sale (360 days a year)	5,111	5,600
Credit period	36 days	60 days
Therefore, average debtors	1,84,000	3,36,000
Interest @15%	27,600	50,400

(2 MARKS)

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) × (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

(i) Statement of Weighted Average Cost of Capital

Project Cost	Financing	Proportion of capital Structure	After tax cost (1 – Tax 50%)	Weighted average cost (%)
UptoRs. 2 Lakhs	Debt	0.4	10% (1 – 0.5)	0.4 × 5 = 2.0
			= 5%	
	Equity	0.6	12%	0.6 × 12 = 7.2
				9.2%
Above Rs. 2 lakhs &upto to Rs. 5 lakhs	Debt	0.4	11% (1 – 0.5) = 5.5%	0.4 × 5.5 = 2.2
	Equity	0.6	13%	0.6 × 13 = 7.8
				10.0%
Above Rs. 5 lakhs	Debt	0.4	12% (1 – 05) = 6%	0.4 × 6 = 2.4
&uptoRs. 10 lakhs	Equity	0.6	14%	0.6 × 14 = 8.4
				10.8%
Above Rs. 10 lakhs &uptoRs. 20 lakhs	Debt	0.4	13% (1 – 0.5) = 6.5%	0.4 × 6.5 = 2.6
	Equity	0.6	14.5%	0.6 × 14.5 = 8.7
				11.3%

Project	Fund requirement	Cost of Capital
X	Rs. 6.5 lakhs	10.8% (from the above table)
Y	Rs. 14 lakhs	11.3% (from the above table)

(8 MARKS)

(ii) If a project is expected to give after tax return of 10%, it would be acceptable provided its project cost does not exceed Rs. 5 lakhs or, after tax return should be more than or at least equal to the weighted average cost of capital. **(2 MARKS)**

ANSWER-3

(i) Payback Period of Projects

	C_0	C_1		C_2		C_3	
A	- 10,000 +	6,000	+	2,000	+	2,000	= 3 years
B	- 10,000 +	2,500	+	2,500	+	5,000	= 3 years
C	- 3,500+	1,500	+	2,500			= 1 year and 9.6 months
	i.e. $\frac{12}{2,500}$ x 2,000						
D	-3,000 +	0	+	0	+		= 3 years

(2 marks)

(ii) If standard payback period is 2 years, Project C is the only acceptable project. But if standard payback period is 3 years, all the four projects are acceptable.

(1 mark)

(iii) **Discounted Payback Period** (Cash flows discounted at 10%)

A - 10,000 + 5,454.6 + 1,652.8 + 1,502.6 + 8,196

3 years + $\frac{12}{8,196}$ x 1,390 = 3 years and 2 months

B - 10,000 + 2,272.75 + 2,066 + 3,756.5 + 5,122.50

3 years + $\frac{12}{5,122.55}$ x 1,904.75 = 3 years and 4.6 months

C - 3,500 + 1,363.65 + 2,066 + 375.65 + 3,415

2 years + $\frac{12}{375.65}$ x 70.35 = 2 years and 2.25 months

D - 3,000 + 0 + 0 + 2,253.9 + 4,098

3 years + $\frac{12}{4,098}$ x 746.10 = 3 years and 2.18 months

If standard discounted payback period is 2 years, no project is acceptable on discounted payback period criterion.

If standard discounted payback period is 3 years, Project 'C' is acceptable on discounted payback period criterion.

(4 marks)

(iv) Evaluation of Projects on NPV criterion

A = - 10,000 + 5,454.6 + 1,652.8 + 1,502.60 + 8,196

NPV = Rs. 6,806.2

B = - 10,000 + 2,272.75 + 2,066 + 3,756.5 + 5,122.5

NPV = Rs. 3,217.75

C = - 3,500 + 1,363.65 + 2,066 + 3, 75.65 + 3,415

NPV = Rs. 3,720.3

D =- 3,000 + 0 + 0 + 2,253.9 + 4,098
NPV = Rs. 3,351.9

Ranking of Projects on NPV Criterion

	NPV Rs.	Rank
A	6,806.2	I
B	3,217.75	IV
C	3,720.3	II
D	3,351.9	III

Analysis: Project A is acceptable under the NPV method. The NPV technique is superior to any other technique of capital budgeting, whether it is PI or IRR. The best project is the one which adds the most, among available alternatives, to the shareholders wealth. The NPV method, by its very definition, will always select such projects. Therefore, the NPV method gives a better mutually exclusive choice than PI method. The NPV method guarantees the choice of the best alternative.

(3 marks)

ANSWER-4

Statement showing Working Capital Investment for each policy

(Rs. in crore)

	Working Capital Policy		
	Conservative	**Moderate**	**Aggressive**
Current Assets: (i)	4.50	3.90	2.60
Fixed Assets: (ii)	2.60	2.60	2.60
Total Assets: (iii)	7.10	6.50	5.20
Current liabilities: (iv)	2.34	2.34	2.34
Net Worth: (v) = (iii) - (iv)	4.76	4.16	2.86
Total liabilities: (iv) + (v)	7.10	6.50	5.20
Estimated Sales: (vi)	12.30	11.50	10.00
EBIT: (vii)	1.23	1.15	1.00
(a) Net working capital position: (i) -(iv)	2.16	1.56	0.26
(b) Rate of return: (vii)/(iii)	17.32%	17.69%	19.23%
(c) Current ratio: (i)/(iv)	1.92	1.67	1.11

(3 MARKS)

(ii) Statement Showing Effect of Alternative Financing Policy

(Rs. in crore)

Financing Policy	Conservative	Moderate	Aggressive
Current Assets (i)	3.90	3.90	3.90
Fixed Assets (ii)	2.60	2.60	2.60
Total Assets (iii)	6.50	6.50	6.50
Current Liabilities (iv)	2.34	2.34	2.34
Short term Debt (v)	0.54	1.00	1.50
Total current liabilities	2.88	3.34	3.84
(vi) = (iv) + (v)			
Long term Debt (vii)	1.12	0.66	0.16
Equity Capital (viii)	2.50	2.50	2.50
Total liabilities (ix) = (vi)+(vii)+(viii)	6.50	6.50	6.50
Forecasted Sales	11.50	11.50	11.50
EBIT (x)	1.15	1.15	1.15
Less: Interest on short-term debt	0.06 (12% of Rs.0.54)	0.12 (12% of Rs. 1)	0.18 (12% of Rs. 1.5)
Interest on long term debt	0.18 (16% of Rs.1.12)	0.11 (16% of Rs.0.66)	0.03 (16% of Rs.0.16)
Earnings before tax (EBT) (xi)	0.91	0.92	0.94
Taxes @ 35% (xii)	0.32	0.32	0.33
Earnings after tax: (xiii) = (xi) – (xii)	0.59	0.60	0.61
(a) Net Working Capital Position: (i) - [(iv) + (v)]	1.02	0.56	0.06
(b) Rate of return on shareholders Equity capital : (xiii)/ (viii)	23.6%	24.0%	24.4%
(c) Current Ratio (i) / (vi)	1.35	1.17	1.02

(7 MARKS)

ANSWER-5

Total Assets = Rs.6,00,000

Total Asset Turnover Ratio i.e $= \frac{Total\ sales}{Total\ assets} = 4$

Hence, Total Sales = Rs. 6,00,000 x 4 = Rs.24,00,000

Computation of Profits after Tax (PAT)

Particulars	(Rs.)
Sales	24,00,000
Less: Variable operating cost @ 60%	14,40,000
Contribution	9,60,000
Less: Fixed operating cost (other than Interest)	2,00,000
EBIT (Earning before interest and tax)	7,60,000
Less: Interest on debt (10% x 2,40,000)	24,000
EBT (Earning before tax)	7,36,000
Less: Tax 30%	2,20,800
EAT (Earning after tax)	5,15,200

(4 marks)

(i) (a) Degree of Operating Leverage

Degree of Operating leverage = $\frac{Contribution}{EBIT} = \frac{9,60,000}{7,60,000} = 1.263\ (approx)$

(b) Degree of Financial Leverage

Degree of Financial Leverage = $\frac{EBIT}{EBT} = \frac{7,60,000}{7,36,000} = 1.003\ (approx)$

(c) Degree of Combined Leverage

Degree of Combined Leverage = $\frac{Contribution}{EBIT} \times \frac{EBIT}{EBT} = \frac{Contribution}{EBT}$

$= \frac{9,60,000}{7,36,000} = 1.304\ (approx)$

(3*1 = 3 marks)

Or

Degree of Combined Leverage = Degree of Operating Leverage x Degree of Financial Leverage

= 1.263 x 1.033 = 1.304 (approx.)

(ii) (a) If EPS is Re. 1

EPS = $\frac{(EBIT - Interest)(1 - tax)}{No.of\ equity\ shares}$

$$\text{Or, } 1 = \frac{(EBIT - 240000)(1-0.30)}{18000}$$

Or, EBIT = Rs. 49,714 (approx.)

(b) If EPS is Rs. 2

$$2 = \frac{(EBIT - 240000)(1-0.30)}{18000}$$

Or, EBIT = Rs. 75,429 (approx.)

(c) If EPS is Rs. 0

$$0 = \frac{(EBIT - 240000)(1-0.30)}{18000}$$

Or, EBIT = Rs.24,000

Alternatively, if EPS is 0 (zero), EBIT will be equal to interest on debt i.e. Rs. 24,000.

(3*1 = 3 marks)

ANSWER-6

ANSWER-A

There are various factors like price of the product/ service, demand, price of inputs e.g. raw material, labour etc., which is to be managed by an organization on a continuous basis. Proportion of debt also needs to be managed by an organization very delicately. Higher debt requires higher interest and if the cash inflow is not sufficient then it will put lot of pressure to the organization. Both short term and long term creditors will put stress to the firm. If all the above factors are not well managed by the firm, it can create situation known as distress, so financial distress is a position where Cash inflows of a firm are in adequate to meet all its current obligations.

Now if distress continues for a long period of time, firm may have to sell its asset, even many times at a lower price. Further when revenue is inadequate to revive the situation, firm will not be able to meet its obligations and become insolvent. So, insolvency basically means inability of a firm to repay various debts and is a result of continuous financial distress.

(4 MARKS)

ANSWER-B

The limitations of financial ratios are listed below:

(i) **Diversified product lines:** Many businesses operate a large number of divisions in quite different industries. In such cases ratios calculated on the basis of aggregate data cannot be used for inter-firm comparisons.

(ii) **Financial data are badly distorted by inflation:** Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.

(iii) Seasonal factors may also influence financial data.

(iv) To give a **good shape to the popularly used financial ratios** (like current ratio, debt- equity ratios, etc.): The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be different had there been no such change.

(v) **Differences in accounting policies and accounting period:** It can make the accounting data of two firms non-comparable as also the accounting ratios.

(vi) There is no standard set of ratios against which a firm's ratios can be compared: Sometimes a firm's ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.

(vii) **Financial ratios are inter-related, not independent**: Viewed in isolation one ratio may highlight efficiency. But when considered as a set of ratios they may speak differently. Such interdependence among the ratios can be taken care of through multivariate analysis.

(4 MARKS)

ANSWER-C

In dividend price approach, cost of equity capital is computed by dividing the expected dividend by market price per share. This ratio expresses the cost of equity capital in relation to what yield the company should pay to attract investors. It is computed as:

$$Ke = \frac{D1}{P0}$$

Where,

$D1$ = Dividend per share in period 1

$P0$ = Market price per share today

(2 MARKS)

SECTION – B (40 MARKS)

ANSWER-7

ANSWER-A

Here,

$$C = 10 + 0.8Y_d$$

$$= 10+0.8 (Y- 50)$$

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

$$= 10 + 0.8(Y- 50) + 135 + 60 + (35 – 0.05Y)$$

$$Y - 0.8Y + 0.05Y = 10 - 40 + 135 + 60 + 35$$

$$0.25Y = 200$$

$$Y = 800$$

Net Exports = (X- M)= 35 - 0.05Y

$$35 - 0.05 \times 800 = -5$$

Thus, Trade is in deficit.

(3 MARKS)

ANSWER-B

Foreign direct investment is defined as a **process whereby the resident of one country (i.e. home country) acquires ownership of an asset in another country (i.e. the host country) and such movement of capital involves ownership, control as well as management of the asset in the host country.** Direct investments are real investments in factories, assets, land, inventories etc. and have three components, viz., equity capital, reinvested earnings and other direct capital in the form of intra-company loans. Foreign direct investment also includes all subsequent investment transactions between the investor and the enterprise and among affiliated enterprises, both incorporated and unincorporated. FDI involves long term relationship and reflects a lasting interest and control. According to the IMF and OECD definitions, the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by non-resident investors makes it eligible to be categorized as FDI. FDI may be categorized as horizontal, vertical, conglomerate and two- way direct foreign investments which are reciprocal investments.

(3 MARKS)

Benefits of Foreign Direct Investment

Following are the benefits ascribed to foreign investments:

(i) Entry of foreign enterprises usually **fosters competition and generates a competitive environment** in the host country.

(ii) International capital allows countries to finance **more investment than can be supported by domestic savings resulting in higher productivity and enhanced output.**

(2*1=2 MARKS)

ANSWER- C

The Reserve Bank of India (RBI) Act, 1934 was amended on June 27, 2016, for giving a statutory backing to the Monetary Policy Framework Agreement and for setting up a Monetary Policy Committee (MPC). The Monetary Policy Framework Agreement is an agreement reached between the Government of India and the Reserve Bank of India (RBI) on the maximum tolerable inflation rate that the RBI should target to achieve price stability. The amended RBI Act (2016) provides for a statutory basis for the implementation of the 'flexible inflation targeting framework'.

Announcement of an official target range for inflation is known as inflation targeting. The Expert Committee under Urijit Patel to revise the monetary policy framework, in its report in January, 2014 suggested that RBI abandon the 'multiple indicator' approach and make inflation targeting the primary objective of its monetary policy. The inflation target is to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly,

- The Central Government has notified 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 percent and the lower tolerance limit of 2 per cent.
- The RBI is mandated to publish a Monetary Policy Report every six months, explaining the sources of inflation and the forecasts of inflation for the coming period of six to eighteen months.

(2 MARKS)

ANSWER-8

ANSWER-A

Point	Description
Meaning	1.Government Borrowings from Public (and its repayment) are covered in this concept. 2. Public Debt may be – (a) Internal – i.e. borrowing from its own people in the country, or (b) External – i.e. borrowing from outside sources. 3. Public Debt may be by way of – **(a) Market Loans** – issue of Treasury Bills (T – Bills) and Government Securities (G – Secs) which are actively traded in Debt Markets, [Note : capital Bonds = Long – Term, and T – Bills = Short – Term] **(b) Small Savings** – non – negotiable and non – transferable Public Borrowings under various schemes – e.g. Public Provident Fund, National Savings Certificates, Kisan Vikas Patra, Sukanya Samriddhi, etc.
Action during Recession	1. Government reduces its Borrowings (e.g. Closure of certain schemes, non – acceptance of fresh deposits), and also repays existing Public Debt. 2. Such action increases the availability of money in the economy and increases Aggregate Demand.
Action during Inflation	1. Government increases its Borrowings (e.g. offering new schemes, acceptance of fresh deposits etc.), and also at attractive rates of interest. 2. Such action wipes out the excess purchasing power in the economy, reducing demand – pull inflation.

(5 MARKS)

ANSWER-B

The Heckscher-Ohlin theory of trade, also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments.

A country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.

Accordingly, a capital abundant country will produce and export capital intensive goods relatively more cheaply and a labour-abundant country will produce and export labour intensive goods relatively more cheaply than another country.

(3 MARKS)

ANSWER–C

1. **Meaning :**Disposable Income is the **Income which is left with the Individuals after paying Taxes to the Government.**
2. **Computation :** Disposable Income can be computed in any one of the following way –
   (a) Disposable Income = Personal Income (-) Personal Income Taxes.

(2 MARKS)

ANSWER-9

ANSWER-A

If Disposable Income (Y) is	**Rs. 20,000**	**Rs. 25,000**	**Rs. 30,000**
(a) Consumption (C) = 6,000 + 0.75Y	6,000 + (0.75 × 20,000) = Rs. 21,000	6,000 + (0.75 × 25,000) = Rs. 24,750	6,000 + (0.75 × 30,000) = Rs. 28,500
(b) Saving (S) = Y – C **[Note 1]**	20,000 – 21,000 = D is saving (Rs. 1,000)	25,000 – 24,750 = Rs. 250	30,000 - 28,500 = Rs. 1,500
(c) Autonomous Consumption	**[Note 2]**Rs. 6,000	Rs. 6,000	Rs. 6,000
(d) Induced Consumption = C – a	Rs. 15,000	Rs. 18,750	Rs. 22,500

Note :

1. Saving is the difference between Disposable income and Consumption. It is the difference between the Consumption line and the 45 Degree line at each level of Disposable Income.
2. For the consumption Function C = a + by, where "a" = a constant which represents the positive value of Consumption at Zero level of Disposable Income. Hence, in this case, a = Rs. **6,000**. This is also the point at which the consumption Line intersects the vertical axis (Y – Axis). This is called Autonomous Consumption, i.e. unconnected with Income.
3. Induced Consumption is determined by the level of Income, i.e. it is Income – induced Consumption and is computed as Total Consumption (-) Autonomous Consumption.

(5 MARKS)

ANSWER-B

Changes in SLR chiefly **influence the availability of resources in the banking system for lending**. A rise in SLR -during periods of high liquidity - to lock up a rising fraction of a bank's assets in the form of eligible instruments – reduces the credit creation capacity of banks. A reduction in SLR during periods of economic downturn has the opposite effect.

(2 MARKS)

ANSWER-C

The **principles governing application of SPS measures are**:

- The sanitary and phytosanitary measures are to be **based on scientific principles and should not be inconsistent with the provisions of the SPS agreement**.
- Measures **should not arbitrarily or unjustifiably discriminate between/among members** where identical or similar conditions exist.
- Measures should **not be applied in a way which would constitute a disguised restriction** to international trade.

(3*1 = 3 MARKS)

ANSWER-10

ANSWER-A

Point	Description
Meaning	1. When spending by Government in an economy replaces Private Spending, the latter is said to be crowded out. [**Note :** Government Spending has to "support" and "enhance" private spending, not merely "replace" it. 2. **"Crowing 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.**
Example	If government provides Free Computers to Students, the demand from students for Computers may not be forthcoming.

(2 MARKS)

ANSWER-B

Motivations for a country seeking investments occurs when:

I. Producers have saturated sales in their home market

II. Firms want to ensure market growth and to find new buyers and larger markets with sizable population.

III. Technological developments and economies arising from large scale production necessitate greater ability of the market to support the expected demand on which the investment is based. The minimum size of market needed to support technological development in certain industries is sometimes larger than the largest national market.

IV. There are substantial barriers to exporting from the home country

V. Firms identify country-specific consumer preferences and favourable structure of markets elsewhere.

VI. Firms realize that their products are unique or superior and that there is scope for exploiting this opportunity by extending to other regions.

(5*1 = 5 MARKS)

ANSWER-C

Adverse selection is a situation in which asymmetric information about quality eliminates high-quality goods from a market. It a form of market failure which occurs when buyers have better information than sellers due to hidden information, and this can distort the usual market process. For example, in the insurance market adverse selection is the tendency for people with **higher risk to obtain insurance coverage to a greater extent** than persons with lesser risk because compared to insurance buyers, insurers know less about the health conditions of buyers and are therefore unable to differentiate between high-risk and low-risk persons. If the insurance company charges an average price, and only high – risk consumers buy insurance it will make losses. It is therefore possible that there will be higher overall premium as firms insure themselves against high-risk customers buying insurance. Then the low-risk customers may not want to buy insurance because it is quite expensive. Economic agents end up either **selecting a sub-standard product or leaving the market altogether leading to a condition of 'missing market'**. If the sellers wish to do business profitably, they may have to incur considerable costs in terms of time and money for identifying the extent of risk for different buyers.

(3 MARKS)

ANSWER-11

ANSWER-A

Aggregate demand is the total quantity of finished goods and services that all sectors (consumers, firms, government and the rest of the world) together wish to buy under different conditions. The components of aggregate demand are consumption demand, investment demand, government spending and net exports at each level of income. While **consumption demand is a function of the level of disposable income**, the demand for investment, government spending and net exports are autonomous, i.e. these are determined outside the model and are specifically assumed to be independent of income.

The Keynesian aggregate demand schedule is obtained by vertically adding the demand for consumption, investment demand, government spending and net exports at each level of income.

$$\mathbf{AD= C+ I+ G+ NX}$$

(3 MARKS)

ANSWER-B

Quasi-public goods or services, also called a near public good (for e.g. education, health services) possess nearly all the qualities of private goods and some of the benefits of public good. These goods are, in some measure excludable for example, it is possible to exclude non paying consumers from the use of a highway by incurring the cost of building and maintaining a toll booth. Similarly beaches, parks and wifi networks become partially rival and partially diminishable at times of peak demand. These are **rejectable** to some extent. It is possible 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 quasi-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. **Markets for the quasi-public goods are considered to be incomplete markets and their lack of provision by free markets would be considered as inefficiency and market failure**.

(2 MARKS)

ANSWER – C

The Neo classical Approach or the cash balance approach put forth by Cambridge economists holds that money increases utility in the following two ways:

1. for transaction motive, i.e. for enabling the possibility of split-up of sale and purchase to two different points of time rather than being simultaneous
2. as a temporary store of wealth i.e. for a hedge against uncertainty

Since demand for money also involves a precautionary motive in this approach and money gives utility in its store of wealth and precautionary modes, money is demanded for itself. How much money will be demanded depends:

(i) partly on income which 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 to overcome transactions costs, and

(ii) partly on other factors of which important ones are wealth and interest rates.

The Cambridge equation is stated as:

Md = k PY Where

Md = 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. 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.

(3*1 = 3 MARKS)

ANSWER – D

An externality is defined as the uncompensated impact of one person's production and/or consumption actions on the well-being of another who is not involved in the activity and such effects are not reflected directly in market prices. If the impact on the third parties' is adverse, it is called a negative externality. If it is beneficial, it is called a positive externality.

When **negative externalities** are present, the social cost of production or consumption is greater than the private cost. The benefit of a negative externality goes to the agent producing it, while the costs are invariably borne by the society at large.

When a **positive externality** exists, the benefit to the individual or firm is less than the benefit to the society i.e. the social value of the good exceeds the private value. In both cases, the outcome is market failure and inefficient allocation of resources.

(2 MARKS)