INDIAN SCHOOL MUSCAT
FINAL TERM EXAMINATION
NOVEMBER 2018
CLASS XII
Marking Scheme – SUBJECT [THEORY]
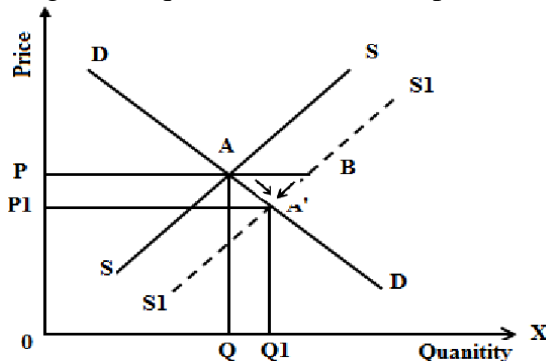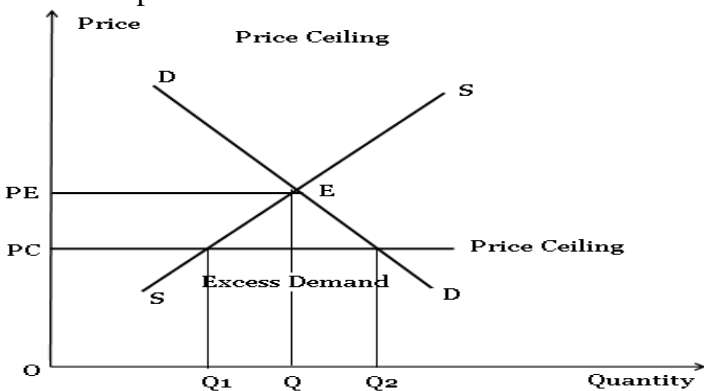
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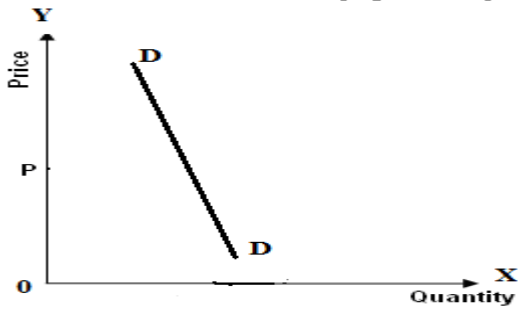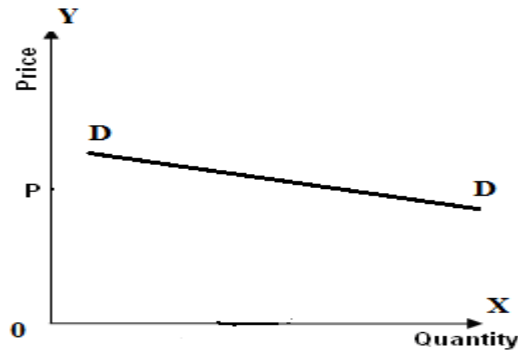
Section A: Introductory Microeconomics

Q.N	Answers	Marks (with split up)
1.	**A firm has a variable cost of ₹1, 000 at five units of output. If fixed costs are ₹400, what will be the average total cost at five units of output? (Choose the correct alternative)** (a) ₹280 (b) ₹80 (c) ₹200 (d) ₹1400 Ans: (a) ₹280	1 MARK
2.	**Why is a perfectively competitive firm called a 'price taker'?** A perfectively competitive firm is called a 'price taker' as it has to adopt the price determined by the market demand and market supply. **OR** **Why is a monopoly firm called a 'price maker'?** Monopoly is called 'price maker' because the price of the commodity sold is determined by the monopoly itself.	1 MARK 1 MARK
3.	**What happens to marginal product when total product increases at diminishing rate?** Marginal product diminishes till it reaches zero	1 MARK
4.	**What are explicit costs?** Expenses incurred by a producer when inputs are purchased or hired form the market. **OR** **Define marginal cost**. Marginal cost is the addition made to the total cost by the production of one more unit of a variable factor input.	1 MARK 1 MARK
5.	**State the law of diminishing marginal utility. What is the relationship between total utility and marginal utility as units consumed increases?** The law states that as a consumer consumes more units of a commodity, marginal utility from consumption diminishes In the beginning TU = MU When TU rises MU diminishes When TU is Maximum, MU is zero When TU falls, MU is negative	1 MARK 2 MARKS 1 + 2 = 3 MARKS

6.	**Are the following statements 'true' or 'false'? give reasons**
	  (a) **At a higher price than equilibrium price there is excess demand.**
	  (b) **If both demand and supply increase simultaneously in same proportion, equilibrium price will also increase.**
	  (c) **Price floor the minimum allowable price above equilibrium price.**
	Ans:
	False: There is excess supply at a price higher than equilibrium price
	False: Equilibrium price will remain constant. Equilibrium quantity exchanged will increase.
	True: Price floor is the minimum allowable price above equilibrium price fixed by the government to support producers.
		1 x 3 = 3 MARKS

7.	**'As the price of a good falls, the resulting increased purchasing power may be a reason for increase in quantity demanded'. Do you agree with the given statement? Give reason for your answer.** When price of a good falls the purchasing power (real income) of the consumer increases as he will able to purchase more units of the given good with the same money income. This phenomenon is called as income effect and is one of the main reasons for negative slope of demand curve. (ANY OTHER VALUE POINT)	4 MARKS FOR EXPLANATION
8.	**Elaborate the 'freedom of entry and exit' feature of perfect competition.** In short run, new firms are attracted to enter the market due to the presence of abnormal profits. As the number of firms in market rise, abnormal profits are shared between firms till no more abnormal profits exist in market. In long run, firms that cannot even earn normal profits will exit the market. **OR** **What are selling costs? How are selling costs useful for a monopolistic competition market?** Selling costs are costs incurred by a firm on persuasive advertisement and sales promotion Selling costs are necessary expenditure for a monopolistic competition as it helps a firm to differentiate its products from rival firms' product and also to persuade consumer by highlighting product differentiation. It convinces the consumers to switch over to other substitutes making the demand in the market as relatively elastic.	4 MARKS FOR EXPLANATION 4 MARKS FOR EXPLANATION
9.	**Explain how changes in prices of other products influence the supply of a given product.** Suppose the price of the other products rises. It makes the production of these products more profitable because their cost is unchanged. As a result, the firm shifts its resources from the given product to the production of the other products. Supply of the given product falls. Similarly, fall in the price of other products increases the supply of the given product. **OR** **Explain how changes in prices of inputs influence the supply of a product.** Changes in the price of raw material and remuneration of factors (rent, wages, etc.) influence the cost of production of a commodity and thereby supply. When the price of inputs fall, marginal cost falls. Price of the product remaining	2 MARKS FOR INCREASE 2 MARKS FOR DECREASE 2 MARKS FOR INCREASE

	unchanged, fall in the marginal cost leads to rise in profits. Rise in profits induces the producer to increase supply. Similarly, a rise in price of inputs will lead to fall in supply.	2 MARKS FOR DECREASE
10.	**Giving reason, identify the equilibrium level of output and find profit using marginal cost and marginal revenue approach from the following data.** 	

Output (units)	1	2	3	4	5
Total Revenue (₹)	14	28	42	56	70
Total Cost (₹)	14	26	40	56	74

Output (units)	Total Revenue (₹)	Total Cost (₹)	Marginal Revenue (₹)	Marginal Cost (₹)
1	14	13	14	14
2	28	26	14	12
3	**42**	**40**	**14**	**14**
4	56	56	14	16
5	70	74	14	18

The producer is at equilibrium at 3 units of output because:
  i)   MR = MC at the third unit of output
  ii) MC>MR beyond equilibrium
Therefore, both the profit maximisation (Equilibrium) conditions are fulfilled at the 3re unit of output.
Profit = Total revenue – Total cost
   = ₹42 - ₹40 = ₹2
Profit is ₹2 at equilibrium

(Right column for item 10:) 2 MARKS FOR THE SCHEDULE

2 MARKS FOR THE CONDITIONS OF EQUILIBRIUM

2 MARKS FOR IDENTIFYING AND CALCULATING PROFIT

11.	**The market for a commodity X is in equilibrium. The price of its inputs fall. Explain with the help of a diagram its chain of effects on equilibrium price and equilibrium quantity exchanged.** When the price of input fall, supply increases. Supply curve shifts from SS to S_1S_1 and at equilibrium price OP there is excess supply. Equal to AB. This will result in competition among sellers. Price starts falling and there will be expansion of demand and a contraction in supply. These changes will continue till the new price OP1 is reached. Market will be again in equilibrium at a lower price OP_1.	3 MARKS FOR EXPLANATION 3 MARKS FOR DIAGRAM WITH PROPER LABELS

OR

What is meant by 'price ceiling'? Explain the consequences of price ceiling.

Price ceiling is maximum allowable price for a good or service fixed by the government below the market equilibrium. The government imposes an upper limit on price of a good is called a price ceiling. It is generally imposed on necessities to make the good available for the poor section also.

PE is the equilibrium price at which DD=SS.

If this price is too high for the poor section of the population, government fixes a Price Ceiling. It creates "Excess Demand" because Demand is Greater than Supply.

Consequences

(a) Shortages: - At a lower price PC, demand increases to Q2, but supply falls to Q1. This will create a shortage of Q1 Q2 for the good in the market.

(b) Ration coupons: - In order to ensure the availability of the good equally to all government has to adopt rationing by giving a fixed quantity of the good to everyone. Each consumer has to stand in a long queue to buy goods.

(c) Black marketing: - Some seller will hoard stocks and try to sell at a price higher the PC. Some consumers are willing to pay a higher price. This may create Black marketing.

Marks
3 MARKS FOR EXPLANATION
3 MARKS FOR DIAGRAM ANS CONSEQUENCES

12. **Explain the following degrees of price elasticity of demand with the help of an example and suitable diagrams.**

   (a) **Inelastic demand**
   (b) **Highly elastic demand**

Inelastic Demand (Ep>0< 1): When percentage change in quantity demanded is less than the percentage change in price. Demand is said to be less than elastic.

Example:

Price Elasticity of demand $= \dfrac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$

Suppose: (ANY SUITABLE EXAMPLE)

Percentage change in quantity demanded is 10% and percentage change in price is 20%

$= \dfrac{10\%}{20\%} = \dfrac{1}{2} = 0.5 \quad Ep < 1$

Diagram:

2 MARKS FOR DEFINITION

2 MARKS FOR EXAMPLE

2 MARKS

Inelastic Demand (Ep>0< 1)

Highly Elastic Demand (Ep>1<infinity): When percentage change in quantity demanded is more than percentage change in price. Demand is said to be more than unit elastic.

Example: (ANY SUITABLE EXAMPLE)

Price Elasticity of demand = $\dfrac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$

Suppose

Percentage change in quantity demanded is 30% and percentage change in price is 20%

$= \dfrac{30\%}{20\%} = 1.5 \quad Ep > 1$

Elastic Demand (Ep>1)

Section B: Introductory Macroeconomics
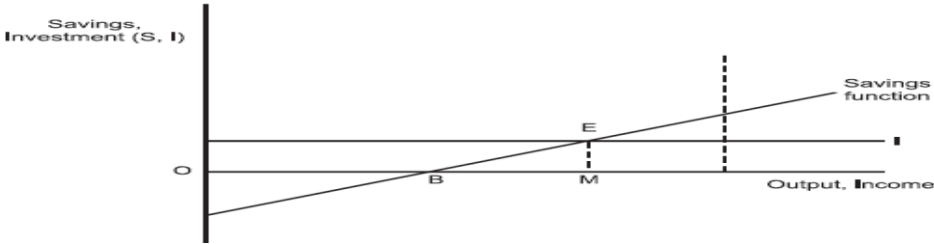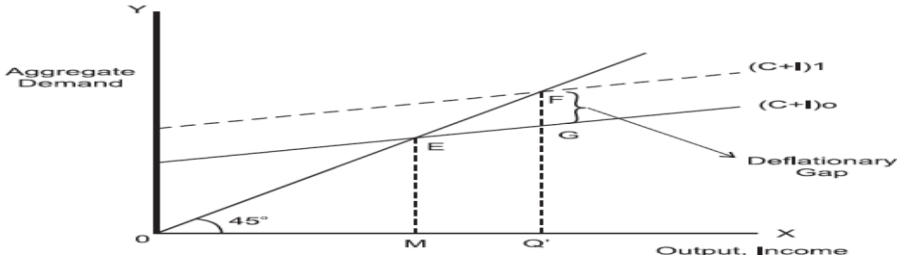
13.	**Define capital goods.** Capital goods are the goods which are used to produce other goods.	1 MARK
14.	**Define average propensity to consume.** The ratio of consumption over income is average propensity to consume	1 MARK
15.	**What is cash reserve ratio?** Cash reserve ratio (CRR) is the ratio of bank deposits which a bank is required to keep with the central bank. **OR** **What is statutory liquidity ratio?** Statutory liquidity ratio (SLR) is the fraction of total deposits of a commercial bank which it has to keep with itself in the form of specified liquid assets by the direction of the central bank.	1 MARK 1 MARK

16.	**Consumption at zero level of income is called. (Choose the correct alternative)**
	    (a) Consumption function
	    (b) Induced consumption
	    (c) Proposed consumption
	    (d) Autonomous consumption
	Ans: (d) Autonomous consumption
		1 MARK

17.	**Explain the 'banker's bank and supervisor' function of the central bank.** As the banker to banks, the Central Bank holds a part of the cash reserves of banks, lends them short-term funds and provides them with centralised clearing and remittance facilities. The banks are required to deposit a stipulated ratio of their net total liabilities (the CRR) with the Central Bank. The pool of funds with the Central Bank serves as a source from which it can make advances to banks temporarily in need of funds, acting in its capacity as lender of last resort. The Central Bank supervises, regulates and controls the commercial banks. The regulation of banks may be related to their licensing, branch expansion, liquidity of assets, management, amalgamation (merging of banks) and liquidation (the winding up of banks).	3 MARKS FOR EXPLANATION
18.	**Distinguish between factor payment and transfer payment.**	1 MARKS X 3 = 3 MARKS

Transfer Payment	Factor Payment
Payments made where there are no goods and services received in exchange.	Payments to factors of production in return for their services rendered to production process.
These are not a part of national income but a part of personal income.	These are a part of national income
These are unilateral payments	These are bilateral payments.
E.g. donations, gifts, old age pension etc.	E.g. Compensation of employees, rent, interest and profits.

OR

What is meant by problem of double counting? How this problem can be avoided?
Ans: The problem of double counting arises when the value of certain goods and services are counted more than once while estimating National Income by Value Added Method. This happens when the value of intermediate goods is counted in the estimation of National Income along with the final value of goods and services.

Two methods to avoid the problem of double counting:
    (a)   To consider only the final value of output produced.
    (b)   To consider only the value added of the output produced.

2 MARKS = 3 MARKS

| 19.	**What do you mean by credit/money creation? Explain the process of money creation by the commercial banks with the help of a numerical example.** Money creation is a process in which a commercial bank creates total deposits many times the initial deposits.	1MARK

	The capacity of commercial bank to create depends on two factors:	FOR DEFINITION
	(a) Amount of initial fresh deposit	
	(b) Legal reserve ratio LRR	
	Money Multiplier = Initial fresh deposit X 1/LRR	
	Process of money/credit creation (Numerical Example)	3 MARKS FOR EXAMPLE AND EXPLANATION.
	Suppose	
	(i) Initial Deposit = ₹ 1000	
	(ii) LRR = 20%	
	As required, the bank keeps 20% i.e. ₹ 200 as cash reserve and lend the remaining ₹ 800. Those who borrow use the money for making payments. As assumed those who receive these payments put the money back into their bank accounts. This creates a fresh deposit of ₹ 800. The bank again keep 20% i.e. ₹ 160 and lend ₹ 640. In this way the money goes on multiplying leading to total money creation of ₹ 5000.	
	Total Deposits Created = Initial fresh deposit X 1/LRR = ₹1000 X 1/(20/100)	
	= ₹1000 X 5	
	Total Deposits Created = ₹ 5000	
20.	**In an economy the marginal propensity to consume is 0.75. Investment expenditure in the economy increases by ₹75crore. Calculate the value of multiplier total increase in national income.**	
	$K = \dfrac{\Delta Y}{\Delta I}$ OR $\dfrac{\Delta Y}{\Delta I} = \dfrac{1}{1-MPC}$ OR $\dfrac{\Delta Y}{75} = \dfrac{1}{1-0.75}$	2 MARKS FOR CHANGE IN INCOME
	$\dfrac{\Delta Y}{75} = \dfrac{1}{0.25}$ OR $0.25\Delta Y = 75$ OR $\Delta Y = \dfrac{75}{0.25} = ₹\ 300\ crores$	
	Change in income (ΔY) =₹ 300 crores	
	$K = \dfrac{\Delta Y}{\Delta I} = \dfrac{300}{75} = 4$	2 MARKS FOR MULTIPLIER
	Investment multiplier (K) = 4	
	OR	
	An economy is in equilibrium. Its consumption function is C=300 +0.8Y and investment expenditure is ₹700 crores. Find national income and consumption expenditure at equilibrium.	
	C= 300+0.8 Y, I = 700	
	At equilibrium	2 MARKS FOR INCOME
	Y = C+I	
	Y = 300+0.8Y+700	
	Y – 0.8y = 300 + 700	
	Let Y= 1	
	0.2y = 1000	
	Y = 1000/0.2	
	Y = ₹ 5000 crores	
	C = 300 + 0.8y	
	= 300 + 0.8 X 5000	
	= 300 + 4000	
	C = ₹ 4300 crores	

21.	**Discuss briefly, the circular flow of income in a two sector economy with the help of a suitable diagram.**	
	Circular Flow of income in a two sector economy - Households are owners of factors of production, they provide factor services to the firms (producing units). Firms provide factor payments in exchange of their factor services. So, factor payments flow from firms (producing units) to households.	**1 MARK FOR DEFINITION** **3 MARKS FOR EXPALANATION AND DIAGRAM**

Households purchase goods and services from firms (producing units) for which they make payment to them. So, consumption expenditure (spending on goods and services) flows from households to the firms.

22.	**Calculate gross national product at market price from the following data:**	

		₹ Crores
1.	Rent	100
2.	Social secu ity contributions by employers	47
3.	Mixed income of self employed	600
4.	Gross domestic capital formation	140
.	Royalty	0
6.	Interest	110
7.	Compensation of employees	500
8.	Net domestic capital formation	120
9.	Net factor income from abroad	(-) 10
10.	Net indirect tax	150
11.	Profit	200

Depreciation = Gross Domestic Capital Formation – Net Domestic Capital Formation

= 140 – 120

= ₹ 20 crores

GNPmp = Compensation of Employees + Rent + Royalty + Interest + Profits + Mixed Income of Self-Employed + Net Factor Income from Abroad + Depreciation + Net Indirect Taxes

= 500 + 100 + 20 + 110 + 200 + 600 + (-) 10 + 20 + 150

= 1700 – 10

= ₹ 1690 crores

1 MARK FOR FINDING DEPRECIATION

5 MARKS FOR FINDING GNPmp

23.	**Explain the determination of equilibrium level of income in the economy using Savings-Investment approach. What adjustments will be made if the economy is not at equilibrium? (Use diagram)**	
	Savings plus Investment Approach (S+I Approach)	**3 MARKS**
	Each point on the savings function shows the desired or planned savings at that income level. The investment demand curve is a horizontal line. At equilibrium, firms plan to	

	invest exactly the same amount regardless of the level of output equal to what households plan to save every year. **Adjustment Mechanism** When economy is at a level of output where savings is greater than investment, it will create an undesired, unplanned build-up of inventories of unsold goods. To reduce the unsold inventories to the desired level firms will cut back production and reduce employment. The effect of this will be to reduce output until the economy returns to equilibrium and there is no further tendency to change. When the economy is at a level of output where savings is less than investment it will cause an unplanned, undesired reduction in inventories of unsold goods. The actual level of investment will be less than the planned level of investment. In order to increase inventories, firms will increase production and increase employment. The effect of this will be to increase output till the economy returns to equilibrium and there is no further tendency to change.	FOR EQUILIBRIUM 3 MARKS FOR ADJUSTMENT MECHANISM
24.	**Explain the meaning of 'deficient demand' using a diagram. What monetary policy measures are suggested to remedy the situation of deficient demand?** Deficient demand or deflationary gap is when AD at a level of output is less than the full employment level of output OR AD < AS. Total demand for goods and services is not sufficient to meet the full employment output. This gives rise to deflationary gap. Q* is the full employment level of output. Aggregate demand that establish full employment output is Q*F. Aggregate demand curve that establish full employment is $(C+I)_1$. The actual aggregate demand in the economy $(C+I)_0$ is less than the planned income and output by FG. This is deflationary gap. **Monetary policy** Legal Reserve Ratio: Reducing the percentage of LRR will give banks more financial resources to create credit and increase money supply. This will in turn push up consumption expenditure and Investment expenditure. **Reduction of Repo Rate:** Reducing Repo Rate will enable banks to take more short term loans from central bank. This will increase availability of credit at lower interest rates. At a lower rate of interest business men will take more loans to invest. **OR** **Explain the meaning of 'excess demand' using a diagram. What fiscal policy measures are suggested to remedy the situation of excess demand?**	4 MARKS FOR DEFICIENT DEMAND AND DIAGRAM 2 MARKS FOR MONETARY POLICY 4 MARKS FOR

Excess demand refers to a situation when aggregate demand (AD) at a level of output is in excess of aggregate supply (AS) corresponding to full employment in the economy. It causes inflationary gap in the economy. Excess demand gives rise to an inflationary gap; which causes a rise in the price level or inflation.
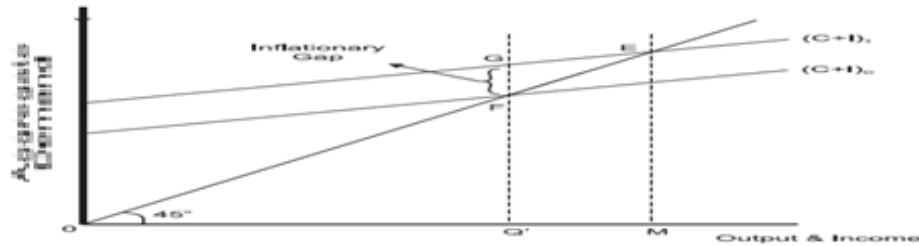
Q^* is the full employment level of output. Aggregate demand that establish full employment output is Q^*F. Aggregate demand curve that establish full employment is $(C+I)_0$. The actual aggregate demand in the economy is $(C+I)_1$ is greater than the planned income and output by FG. This is inflationary gap.

Fiscal measures:
(a) **Reduce government expenditure** by an amount equal to the excess demand in the economy. This will push down AD till equilibrium is attained

Increase rate of personal tax: This will reduce disposable income and push down consumption expenditure and investments till equilibrium is attained