INDIAN SCHOOL MUSCAT
FINAL TERM EXAMINATION
NOVEMBER 2018
CLASS XII

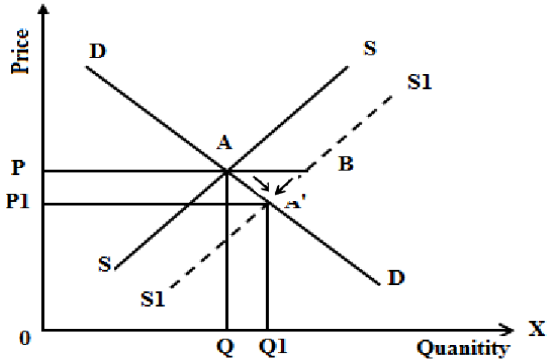
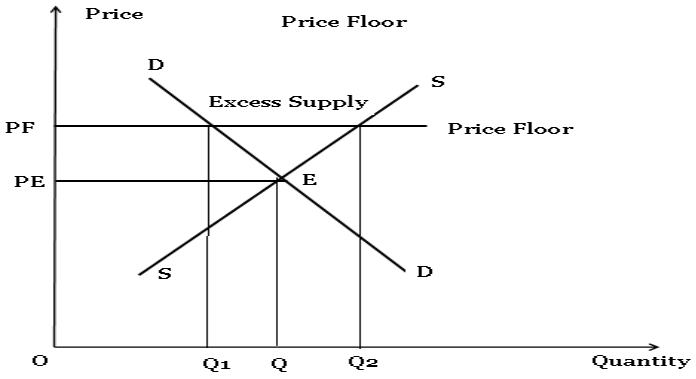
SET B

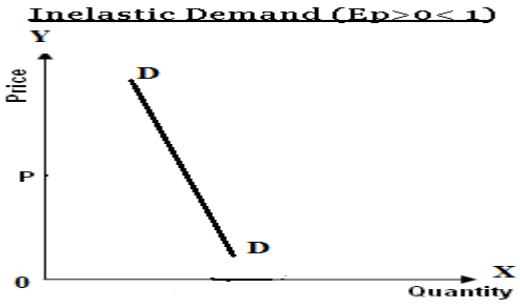
Marking Scheme – ECONOMICS (030) [THEORY]

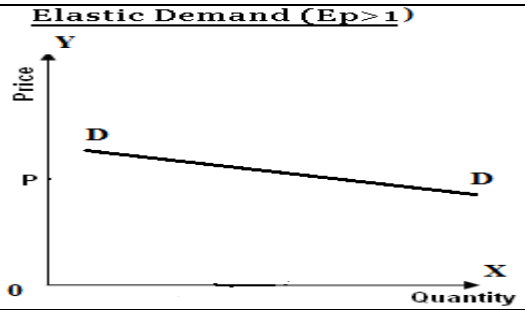
Section A: Introductory Microeconomics

Q.N	Answers	Marks (with split up)
1.	**When happens to marginal product when total product is maximum?** Marginal product is zero when total product is maximum and constant	1 MARK
2.	**When 5 units of a good are sold, total revenue is ₹100. When 6 units are sold, marginal revenue is ₹8. At what price are 6 units sold? (Choose the correct alternative)** **(a) ₹28 per unit** **(b) ₹20 per unit** **(c) ₹18 per unit** **(d) ₹12 per unit** Ans: (c) ₹18 per unit	1 MARK
3.	**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
4.	**What is meant by 'differentiated products'?** Differentiated products mean that each unit of the product is different from the product of the rival firm. Products are clos substitutes of each other. **OR** **What is a 'collusive oligopoly'?** When firms in oligopoly interdependent with each other	1 MARK 1 MARK
5.	**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

6.	**Define consumers' equilibrium. What happens to consumer' equilibrium if the consumer consumes only one good in the following situations:** **(a) When marginal utility is greater than price** **(b) When marginal utility is less than price** Consumers' equilibrium is at that level of consumption where a consumer gets maximum satisfaction with no further tendency of any change. **(a)** When marginal utility is greater than price, then consumer will buy more units of the good being consumed **(b)** When marginal utility is less than price, then the consumer will reduce consumption of the good.	1 MARK FOR DEFINITIO N 1 MARK FOR MU>P 1 MARK FOR MU<P
7.	**Elaborate the 'price discrimination' feature of monopoly.** Ans: Price Discrimination is a situation where the monopolist charges different set of prices of the commodity from different set of consumers. Monopolist being the only seller in the market can exercise this feature by charging different prices (for the products which are homogeneous or otherwise) from different consumers. For example the electricity distribution companies might charge different prices from domestic and commercial electricity users. **OR** **Why is number of firms limited in an oligopoly market? Explain.** Ans: In an oligopoly market, certain 'barriers to entry' prevent new firms to enter the industry. Such barriers maybe: (a) Requirement of large capital (b) Patents and copyrights (c) Government Licences (d) Control over important raw material These barriers may prevent a new firm to enter the oligopolistic market. Firms which are able to cross these barriers are able to enter the industry.	4 MARKS FOR EXPLANAT ION 4 MARKS FOR EXPLANAT ION
8.	**'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 EXPLANAT ION
9.	**Explain how changes in technology influence the supply of a given product.** (a) Use of cost saving and innovative technology decreases the marginal cost of production of the good. Supply of the good increases and supply curve of the given good shifts to the right (b) Use of outdated and resource consuming technology produces a given good at a higher marginal cost. Firms decrease supply due to high costs and supply curve of the given good shifts to the left. **OR**	2 MARKS FOR INCREASE 2 MARKS FOR DECREASE

	Explain how changes in rate of unit taxes (excise tax) influence the supply of a product. (a) A decrease in the rate of unit tax (excise) will help firms to produce more output at reduced cost. Supply of the given good increases and the supply curve of the given good shifts to the right. (b) An increase in the rate of unit tax (excise) or imposition of a new tax will increase the production cost for firms. Supply of the given good will decrease and supply curve of the given good will shift to the left.	2 MARKS FOR INCREASE 2 MARKS FOR DECREASE
10.	**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.  **OR** **What is meant by 'price floor'? Explain the consequences of minimum support price.** Price Floor /Minimum Support Price is the minimum price above the market equilibrium fixed by the government on certain good. Government fixes the minimum price in order to prevent the price falling from certain level so that the producers are assured of reasonable returns. This is also called price support programme.  PE is equilibrium price at which demand=supply, If this price is too low for the producers so that they incur loss, government fixes a price floor or support price PF. It Create "Excess Supply" because Supply is greater than Demand	3 MARKS FOR EXPLANATION 3 MARKS FOR DIAGRAM WITH PROPER LABELS 3 MARKS FOR EXPLANATION 3 MARKS FOR DIAGRAM WITH PROPER LABELS

	Consequences (a) Surplus production: - At higher price producers produce more but demand falls. This creates a surplus production equal to QQ Q2. (b) Buffer Stock: - In order to keep the support price government has to procure this surplus at the floor price. This lead to creation of buffer stock Problem of Subsidies: - Government buys the goods at the support price and sells at a lower price in the market. The price difference becomes subsidies. Government has to incur this cost of subsidies. (Provision of Subsidies is Indirect Intervention by the Government)	
11.	**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 = $\frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$ **Suppose: (ANY SUITABLE EXAMPLE)** Percentage change in quantity demanded is 10% and percentage change in price is 20% $= \frac{10\%}{20\%} = \frac{1}{2} = 0.5 \quad Ep < 1$ **Diagram:**  **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 = $\frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$ **Suppose** Percentage change in quantity demanded is 30% and percentage change in price is 20% $= \frac{30\%}{20\%} = 1.5 \quad Ep > 1$	2 MARKS FOR DEFINITIO N 2 MARKS FOR EXAMPLE 2 MARKS FOR DIAGRAM WITH PROPER LABELS



12. **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

2 MARKS FOR THE SCHEDULE

2 MARKS FOR THE CONDITIONS OF EQUILIBRIUM

2 MARKS FOR IDENTIFYING AND CALCULATING PROFIT

Section B: Introductory Macroeconomics

13. **Aggregate demand is represented by ---------- curve in the determination of income analysis. (Choose the correct alternative)**

(a) Consumption + Saving + Investment

(b) Consumption + Saving

(c) Saving + Investment

(d) Consumption + Investment

Ans: (d) Consumption + Investment

1 MARK

14. **Define marginal propensity to save.**

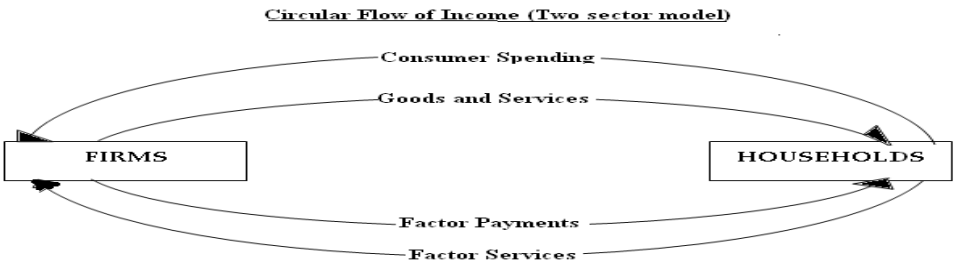
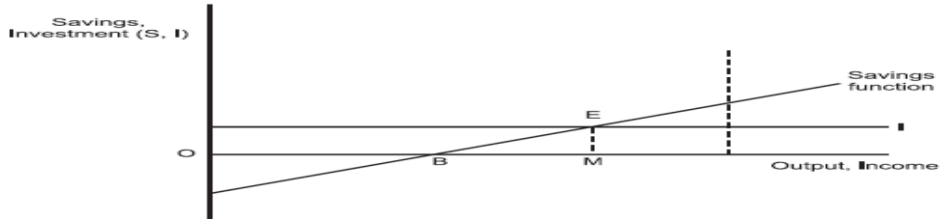
The ratio of change in savings over change in income.

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.	**Define intermediate goods.** Those goods which are exchanged from one producer to another producer for further production.	1 MARK
17.	**Distinguish between factor payment and transfer payment.** **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.	1 MARKS X 3 = 3 MARKS 1 ½ MARKS + 1 ½ MARKS = 3 MARKS
18.	**Explain the 'bank of issue' function of the central bank.** The Central Bank is the sole authority to print and issue of currency in the country which is its monetary liability. The Central Bank is obliged to back the currency with assets of equal value which usually consist of gold coin, gold bullion, foreign securities and the domestic government's local currency securities. The central government is usually authorized to borrow money from the central bank by selling local currency securities to the central bank. The effect of this is to increase the supply of money in the economy. When the central bank acquires these securities, it issues currency.	3 MARKS FOR EXPLANATION

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.

19.	**A `200 crores increase in investment leads to a rise in national income by `1,000 crores. Find out marginal propensity to consume.** Given, increase in investment (ΔI) = `200 crores Increase in national income (Y) = `1,000 crores Multiplier $K = \frac{\Delta Y}{\Delta I} = \frac{1000}{200}$ $K = 5$ $K = \frac{1}{1 - MPC}$ $5 = \frac{1}{1 - MPC}$ $= 5 - 5MPC = 1$ $OR\ 5MPC = 4$ $MPC = \frac{4}{5}$ Marginal propensity to consume = 0.8. **OR** **An economy is in equilibrium. Calculate autonomous consumption from the following:** **(a) National income = ₹1, 250** **(b) Marginal Propensity to save = 0.2** **(c) Investment expenditure = ₹150** Given Y = ₹1, 250, MPS(1-b) = 0.2 or MPC = (1-0.2) = 0.8. I = ₹150 Consumption function C = c + by At equilibrium, Y = C + I Substituting the values 1,250 = c + 0.8 x 1, 250 + 150 1, 250 = c + 1000 + 150 c = 1250 – 1150 c = 100	2 MARKS FOR MULTIPLIER 2 MARKS FOR MPC 2 MARKS FOR CONSUMPTION FUNCTION 2 MARKS FOR AUTONOMOUS CONSUMPTION
20.	**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. The capacity of commercial bank to create depends on two factors: (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)** 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	1 MARK FOR DEFINITION 3 MARKS FOR EXAMPLE

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.  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.	1 MARK FOR DEFINITIO N 3 MARKS FOR EXPALANA TION AND DIAGRAM
22.	**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)** **<u>Savings plus Investment Approach (S+I Approach)</u>** 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.  **<u>Adjustment Mechanism</u>** 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.	3 MARKS FOR EQUILIBRI UM 3 MARKS FOR ADJUSTME NT MECHANIS M
23.	**Calculate gross national product at market price from the following data:**	

		₹ Crores
1.	**Rent**	**100**
2.	**Social security contributions by employers**	**47**
3.	**M xed income of self employed**	**600**
4.	**Gross domestic capital formation**	**140**
5.	**Royalty**	**20**
6.	**Interes**	**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**

1 MARK FOR FINDING DEPRECIATION

Depreciation = Gross Domestic Capital Formation – Net Domestic Capital Formation
= 140 – 120
= ₹ 20 crores

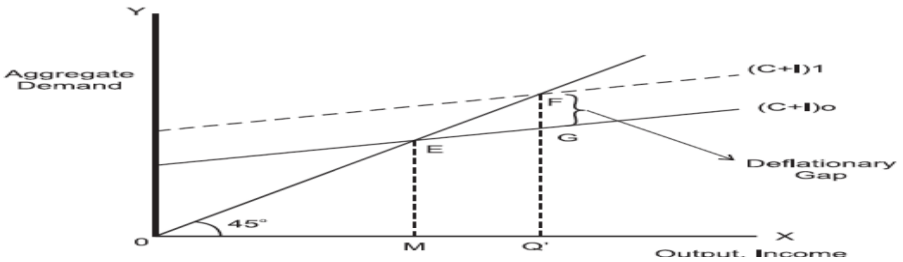
5 MARKS FOR FINDING GNPmp

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

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.

4 MARKS FOR DEFICIENT DEMAND AND DIAGRAM



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.

2 MARKS FOR MONETARY POLICY

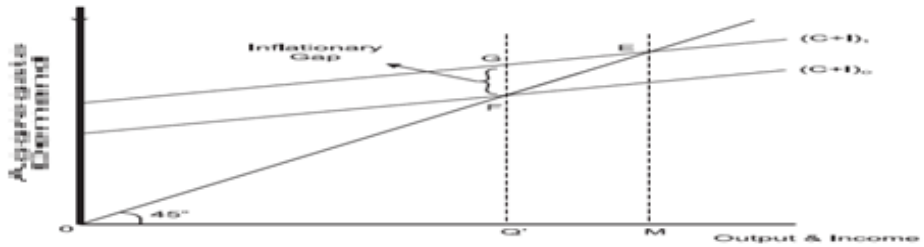
Monetary policy

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 businessmen 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?

	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 (b) **Increase rate of personal tax:** This will reduce disposable income and push down consumption expenditure and investments till equilibrium is attained	4 MARKS FOR EXCESS DEMAND AND DIAGRAM 2 MARKS FOR FISCAL POLICY