Class XII
Economics (030)
Marking Scheme 2018-19

<table>
<tr><td>S.No.</td><td>Section A- Micro Economics</td><td>Marks</td></tr>
<tr><td>1</td><td>Total fixed cost, which remains unchanged at all given levels of output, is the reason behind vertical parallel distance between TVC curve and TC curve.
Or
Law of Variable Proportions</td><td>1</td></tr>
<tr><td>2</td><td>₹ 3,000</td><td>1</td></tr>
<tr><td>3</td><td>a) a straight line</td><td>1</td></tr>
<tr><td>4</td><td>d) wages
Or
b) 70</td><td>1</td></tr>
<tr><td>5</td><td>
<table>
<tr><th>S.No.</th><th>Positive Economics</th><th>Normative Economics</th></tr>
<tr><td>1.</td><td>Positive economics deals with economic issues as they are. It is based on facts and actual data.</td><td>Normative economics deals with economic issues as they ought to be. It is based on opinions and is suggestive in nature.</td></tr>
<tr><td>2.</td><td>Positive statements are strictly neutral towards ends.</td><td>Normative statements can only be assessed relative to beliefs and value judgements.</td></tr>
<tr><td>3.</td><td>e.g. growth rate is 5%; industrial output grew by 3%.</td><td>e.g. The unemployment rate should be reduced</td></tr>
</table>
Or
Central problems are economic problems faced by each and every economy. They arise due to:
i) Scarcity of resources:- Human wants are unlimited and available resources in relation to same are scarce and limited.
ii) Alternate uses of resources:- Available resources can be put to multiple uses, hence, the economy has to make a choice amongst alternative uses of available resources
</td><td>3</td></tr>
<tr><td>6</td><td>If $\frac{MU_X}{P_X} > \frac{MU_Y}{P_Y}$ marginal utility derived by spending one rupee on consumption of commodity X is greater than the marginal utility derived by spending one rupee on consumption of commodity Y.
The satisfaction derived by consuming Commodity X is greater than the satisfaction derived by consuming Commodity Y.
Mr. Atal Singh will reallocate his income by spending more on commodity X, as he will consume</td><td>3</td></tr>
</table>

more units of commodity X, marginal utility derived from consumption of commodity X diminishes and alternate preposition occurs for Commodity Y, this process will continue till $\frac{MU_X}{P_X}$ becomes equal to $\frac{MU_Y}{P_Y}$.

7

Price elasticity of demand (Ed) = $\frac{percentage\ cha\quad in\ quantity\ demanded\ of\ the\ commodity}{percentage\ change\ in\ price\ of\ the\ commodity}$

Percentage change in price = $\frac{12-1}{10}$ X 100 = $\frac{2}{10}$ X 100 = 20%

Percentage change in quantity demanded = 40%

Price elasticity of demand (Ed) = $\frac{percentage\ chang\quad in\ quantity\ demanded\ of\ the\ commodity}{percentage\ chang\quad in\ price\ of\ the\ commodity}$ 4

= $\frac{40\%}{20\%}$ = 2

(minus sign is ignored as it only represents the inverse relation between price and quantity demanded.)

Ed = 2 (Ed > 1, Elastic demand)

Or

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.

8 4

Variable input (in units)	Total Physical Product (in units)	Average Physical Product (in units)	Marginal Physical Products (in units)
1	10	10	**10**
2	**22**	11	12
3	**30**	**10**	8
4	35	**8.75**	**5**
5	**30**	**6**	-5

9

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. 4

Or

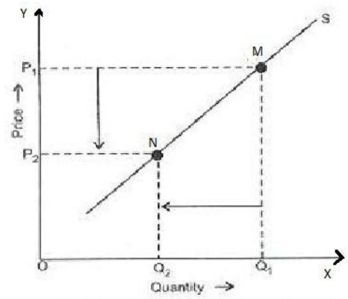
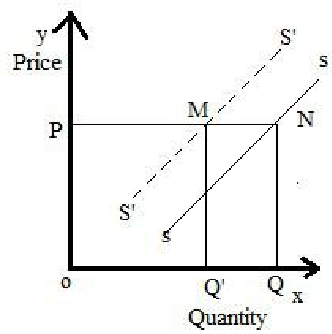
In an oligopoly market, certain 'barriers to entry' prevent new firms to enter the industry. Such barriers maybe:

i. Requirement of large capital

ii. Patents and copyrights

iii. Government Licences

	iv. 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.	
10	a) The assumption of diminishing marginal rate of substitution states that the consumer will be willing to sacrifice lesser units of GoodY,so as to gain additional unit of the Good X. This is an extention of law of diminishing marginal utility. Diminishingmarginal rate of substitution is the reason behind convexity of Indifference Curve to the origin. The following table shows, bundles of Good X and Y which provide same level of satisfaction to the consumer:- <table><tr><th>Bundles</th><th>Units of Good X</th><th>Units of Good Y</th><th>MRS ($\Delta y/\Delta x$)</th></tr><tr><td>A</td><td>1</td><td>21</td><td>-</td></tr><tr><td>B</td><td>4</td><td>15</td><td>6Y : 1X</td></tr><tr><td>C</td><td>3</td><td>10</td><td>5Y : 1X</td></tr><tr><td>D</td><td>4</td><td>6</td><td>4Y : 1X</td></tr><tr><td>E</td><td>5</td><td>3</td><td>3Y : 1X</td></tr></table> The above schedule shows that for each additional unit of Good X, consumer is willing to sacrifice lesser and lesser units of Good Y.	4
	b) Marginal rate of substitution (MRS) is the rate at which consumer is willing to trade-off one good for the other. It depends on the quantity of the two goods s/he is consuming. A rational consumer will sacrifice lesser units of Good Y so as to acquire additional units of Good X, due to the application of law of diminishing marginal utility. MRS should be diminishing as additional consumption of Commodity X, symbolises fall in marginal utility due to which the consumer will not further increase its consumption. If it does not fall, s/he will keep on increasing the consumption of Commodity-X and will not reach a stable equilibrium.	2
11	Market equilibrium is determined at a point where market demand is equal to market supply. a) When increase in market demand is less than decrease in market supply Chain effect: Relative increase in market demand is less than relative increase in market supply. It is a situation of excess supply. There will be competition among the sellers, to clear the unsold stock which will result in reduction in price. This process will continue till new equilibrium point is attained. Equilibrium quantity will increase and the equilibrium price will decrease in the market. b) Increase in the market demand is more than increase in market supply. Chain effect: Relative increase in market demand is greater than relative increase in market supply. It is a situation of excess demand. There will be competition among the buyers which will result in rise in price. This process will continue till new equilibrium point is attained. Equilibrium quantity and equilibrium price will increase in the market.	6

12	Effect on supply curve of Good X when there is a: **i) Fall in own price of Good X -**When the price of a commodity falls, it leads to reduced profit margin of the producers, forcing them to sell lesser quantity. It is called as contraction in supply. There will be movement along the same supply curve towards the origin.  For e.g. When price falls from OP_1 to OP_2 in the given figure, quantity supplied contracts from OQ_1 to OQ_2 and the producer moves from point M to point N. **ii) Rise in price of factor input producing Good X -**When price of factor input producing Good X rises, profit margin of the producers fall, forcing them to produce less quantity of Good X at the given price. Supply curve will shift leftwards.  As in the figure, initially the producer was producing OQ quantity at OP price, if price of factor input increases, producer will now be willing produce less quantity say OQ' at same price. Supply curve will shift leftwards from SS to S'S'.	6
	Or	

The two conditions of producer's equilibrium are:

(i) Marginal Cost should be equal to Marginal Revenue (MC= MR)

(ii) Marginal Cost should be rising at the point of equilibrium.

Output	Marginal Revenue (MR) (in ₹)		Marginal Cost (MC (in ₹)
1	20	<	14
2	10	<	10
3	6	<	7
4	**4**	**=**	**4**
5	2	<	6

Producer will be at equilibrium, producing 4th units of output because it satisfies both the conditions of equilibrium.

(i) If MC is less than MR i.e. at any output level less than 4 units, it is profitable for the producer to produce more units till MC becomes equal to MR.

When MC becomes greater than MR after the MR = MC condition, i.e. at 5th units, production of each additional unit is sold at a loss, which leads to decline in profits for the producer.

Section B- Macro Economics

13

Money Multiplier$=\frac{1}{LRR}=\frac{1}{20\%}=5$ — 1

14

It refers to the total quantity of money in circulation in the economy at a given point of time. — 1

Or

Reverse Repo Rate is the rate at which central bank of a country (RBI in India) borrows funds from commercial banks within the country.

15

c) Profits of LIC, a public enterprise — 1

16

d) Fiscal deficit is the sum of primary deficit and interest payment. — 1

17

The Aggregate Demand (AD) function is given as :

AD = C +I

AD = {ć +b(Y)}+I

ć = 50 (Given)

b or MPC = 1 – MPS = 1 – 0.2 = 0.8 — 3

Substituting the values of c and b in AD function, we get :

AD = {50+ 0.8 (4000)}+100 = ₹3,350 crores

Aggregate Demand is ₹3,350 crores

Or

	No, the Economy is not in a state of equilibrium at ₹1500 crores Given Consumption function, C = 200+0.5Y Investment expenditure (I) = ₹400 crore At the equilibrium level Y= C+I Substituting the values from the question: $Y = \{200+0.5Y\} + 400$ $Y - 0.5Y = 600$ $0.5Y = 600$ $Y = \frac{600}{0.5} = 1200$ The equilibrium level of income is ₹1200 crores. The given income ₹1500 crore is greater than equilibrium level of income. Therefore, the economy is not in equilibrium.	
18	Effective demand refers to that level of output where Aggregate demand is equal to the Aggregate supply. If Aggregate Demand exceeds Aggregate Supply, it means buyers are planning to buy more goods and services than producers are planning to produce. Thus, the inventories in hand with the producers will start falling. As a result, producers will plan to raise the production. This will increase the level of income upto the level Aggregate Demand is equal to Aggregate Supply.	3
19	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 alongwith the final value of goods and services. Two methods to avoid the problem of double counting: i. To consider only the final value of output produced. ii. To consider only the value added of the output produced. **Or** 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.	4
20	Economic Growth implies a sustainable increase in real GDP of an economy, i.e. an increase in volume of goods and services produced in an economy. Budget can be an effective tool to ensure the economic growth in a country. i) If the government provides tax rebates and other incentives for productive activities,	

	it can stimulate savings and investments in the economy. ii) Spending on infrastructure in the economy promotes the production activities across different sectors. Government expenditure is a major factor that generates demand for different types of goods and services, which induces economic growth in the economy.	4
21	i. Open Market Operations (OMO)refers to the sale and purchase of government securities in the open market by the Central Bank (RBI). By selling such securities the Central Bank soaks liquidity from the economy and by purchasing the government securities, Central Bank releases liquidity. This is an important method of regulating the money supply (liquidity) in the market. ii. The Margin Requirement of loan refers to the difference between the current value of the security offered and amount of loan granted. When margin requirement is lowered by the Central Bank, the borrowers are able to secure larger amount of funds from the banks which will increase the money supply in the economy. Conversely, a rise in the margin requirements will contract the supply of credit in the economy.	4
22	a) Precautions of value added method are: i) Value of sale and purchase of second hand goods is not considered while estimating value added as the value of second hand goods is already accounted during the year they were produced. ii) Value of intermediate goods is not included in the estimation of value added because value of intermediate goods is reflected in the value of final goods. b) Value of output of firm B= Sales of firm B to firm C+ Sales of firm B to firm D + Exports +Sales of firm B to Government = 70+40+30+5 = ₹145 crores Value Added by Firm B= Value of output by Firm B – Purchases by Firm B from firm A = 145 -80 = ₹65 crore	3 3
	Or	
	National Income at Constant Prices: When national product is estimated on the basis of prices prevailing in the base year, it is called national income at constant prices or real national income. **National Income at Current Prices**: When national product is estimated on the basis of prices prevailing in the current year, it is called national income at current prices or nominal national income. National income at constant prices = $\frac{\text{National income at current prices}}{\text{Price index of current year}} \times \text{Price index of base year}$ National income at constant prices reflects the real growth of an economy because it increases only when there is an increase in real national output over a period of time. National income at current prices may increase due to increase in prices of goods and services during the current year, thus it does not reflect the true picture of economic growth.	6

23	Initial increase in investment increases the final income of the economy. Investment multiplier explains this effect; Multiplier (k) is the ratio of the increase in National Income (ΔY) due to a given increase in investments (ΔI). $k = \{\frac{\Delta Y}{\Delta I}\}$ For eg. If an additional investment of ₹ 1,000 crores is made by government for a bullet train project in a country; this extra investment will generate an extra income of ₹1,000 crore, as expenditure of one is income for another. Also, it is assumed that Marginal Propensity to Consume of the country is 0.8. An additional investment of ₹1,000 crores (ΔI) made by government will generate an extra income of ₹1,000 crores in first round. If MPC of this country is 0.8, the nationals who are receiving this additional income will spend 80% portion of this additional income, i.e. ₹ 800 crores which in return becomes additional income during third round. Similarly, in third round ₹ 640 crores of income is generated. Consumption expenditure in every round will be 0.8 times of additional income received from previous round.	6

Round	Increase in Investment (ΔI) (₹Crore)	Increase in Income (ΔY) (₹Crore)	Increase in Consumption (ΔC)(₹ Crore) (ΔY X 0.8)	Increase in Saving (₹Crore) (ΔS = ΔY - ΔC)
1^{st}	1,000	1000	800 (1000X0.8)	200
2^{nd}	--	800	640 (800X0.8)	160
3^{rd}	--	640	512 (640 X 0.80)	128
4^{th}	--	512	409.6 (512 X 0.8)	102.4
--	--	--	--	--
∞	--	--	--	--
Total	**1,000**	**5,000**	**4,000**	1,000

Thus, additional investment of ₹1,000 crores leads to total increase of ₹5,000 crores $\{1000 \times \frac{1}{1-0.8}\}$in Income.

As a result Multiplier (k) is $\frac{\Delta Y}{\Delta I} = \frac{5000}{1000} = 5$.

24	a) USA has a valid point of argument as devaluation of a currency encourages exports of a country. As exported goods become cheaper in the international market giving a competitive edge for the goods of domestic country (China). Devaluation of the value of domestic currency promotes the exports of the country and may adversely impact the production and sale of importing country (USA).	3

	b)	Current Account Deficit (CAD) is a situation that arises when the receipts on current account are less than the payments on current account. In simple words, Current Account Deficit (CAD) arises when the value of exports of goods and services is less than the value of imports of goods and services. Current Account surplus (CAS) is a situation that arises when the receipts on current account is more than the payments on current account. In simple words, Current Account Surplus (CAS) arises when the value of exports of goods and services is more than the value of imports of goods and services. CAD signifies that the nation is a borrower from rest of the world, whereas, CAS signifies that the nation is a lender to the rest of the world.	3