Marking Scheme
Economics (030)
Cass XII (2017-18)

<table>
<tr><td></td><td>SECTION A : MICROECONOMICS</td><td></td></tr>
<tr><td>1</td><td>b) Government should be concerned with how to reduce unemployment</td><td>1</td></tr>
<tr><td>2</td><td>Marginal Physical Product is the change in output produced by employing one additional unit of the variable input. It can be calculated as :
$MPP_n = \frac{\Delta\, TPP}{\Delta\, Units\ of\ variable\ input}$
or
$MPP_n = TPP_n - TPP_{n-1}$</td><td>1</td></tr>
<tr><td>3</td><td>i) ₹140</td><td>1</td></tr>
<tr><td>4</td><td>Zero.</td><td>1</td></tr>
<tr><td>5</td><td>Two factors that may shift the Production Possibility Frontier of an economy away from origin (to the right) are:
(a) Increase in resources available to an economy (natural, physical or human resource).
New resources may increase the output potential in an economy resulting in shift of PPF away from origin.
(b) Improvement in technology, when technology improves the production potential increases, i.e. economy may be able to produce more output using existing resources efficiently.
Or
<table><tr><th>Commodity A</th><th>Commodity B</th><th>Marginal Rate of Transformation = $\frac{Loss\ of\ output}{Gain\ of\ output}$</th></tr><tr><td>15</td><td>0</td><td>--</td></tr><tr><td>-5 ⇩ 10</td><td>1 ⇩ +1</td><td>5:1</td></tr><tr><td>-5 ⇩ 5</td><td>2 ⇩ +1</td><td>5:1</td></tr><tr><td>-5 ⇩ 0</td><td>3 ⇩ +1</td><td>5:1</td></tr></table>Since Marginal Rate of Transformation is constant, PPC will be a straight line.</td><td>3</td></tr>
<tr><td>6</td><td>(i) Demand of the good X will increases, hence demand curve of good X shifts towards right.
(ii) Demand of Good X may decrease as people may be inclined to consume less due to</td><td>3</td></tr>
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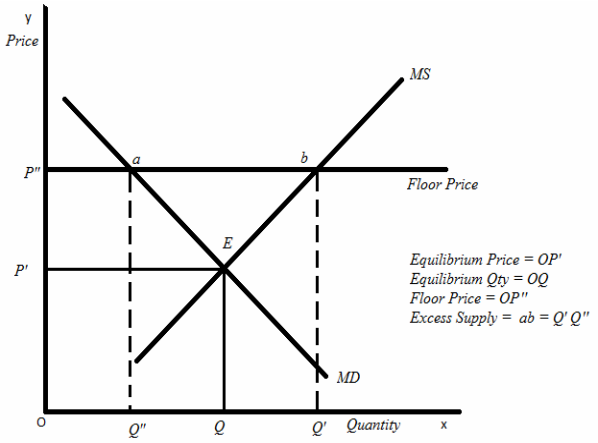
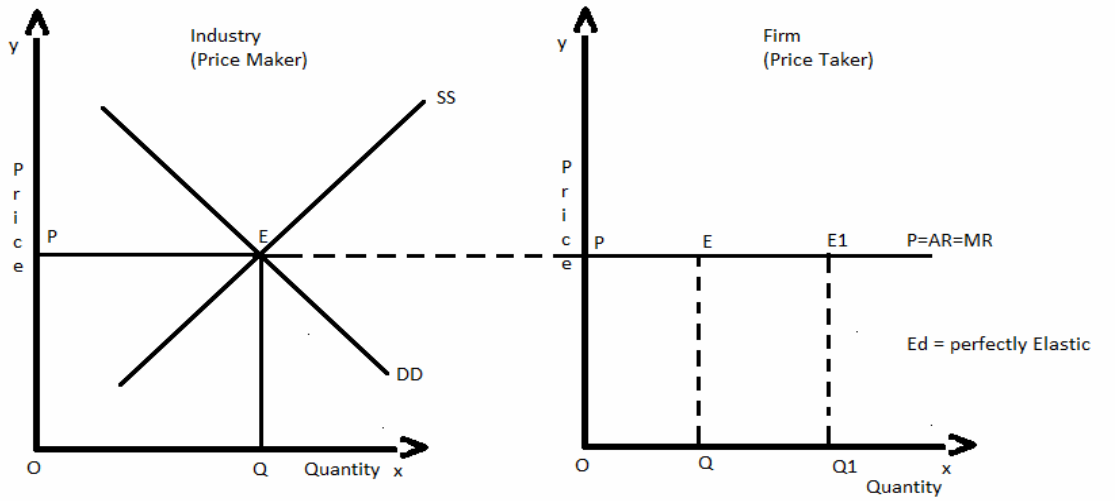
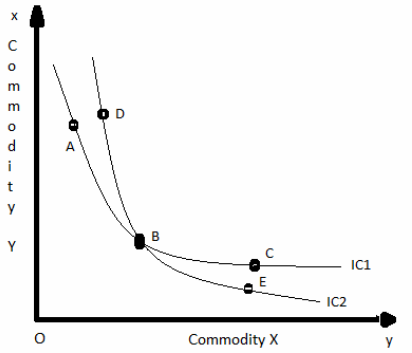
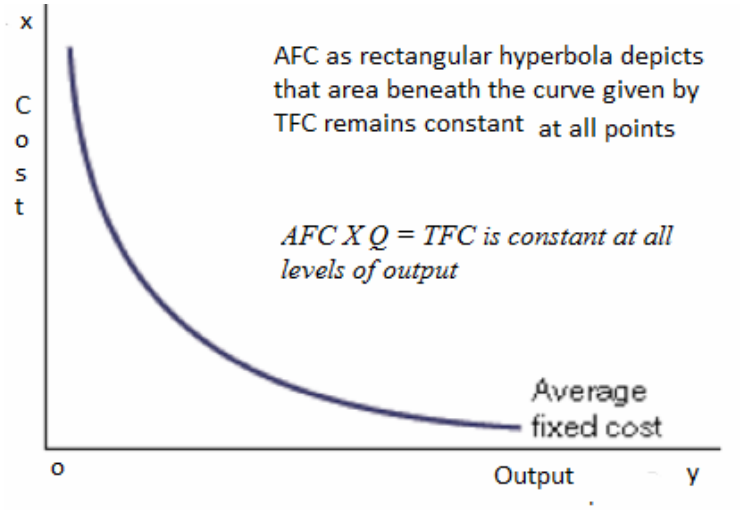
	media reports of harmful effect of the good X, as a result, demand curve may shift towards left. (iii)When income of consumer increases the disposable income increases and consumer is in a better position of spending more on the good X. Hence consumer may consume more of the commodity due to which the demand for the good increases and demand curve shifts away from origin.	
7	a) -0.53, -0.80, -0.87,- 3.1 (minus sign only represents the inverse relation between price and quantity demanded) b) Price (in ₹) / Quantity (in units) Original = 28 / Original = 50 New = 23 / New = 100 Ed = Change in Quantity Demanded / Change in Price x Original Price / Original Quantity (Absolute values taken) $= \frac{50}{5} X \frac{28}{50}$ = 5.6 (Ed>1, relatively more elastic demand.)	4
8	A Floor price is the minimum price at which a commodity can be sold legally. Floor price if fixed above the equilibrium price, serves the purpose of welfare of the producers (say farmers). When price floor is fixed at P" quantity demanded will contract to OQ" but at this price, suppliers will be ready to supply OQ'. As a result, surplus of QQ" will emerge.  Imposition of floor prices above equilibrium price will have the following major implications: a) Surpluses: The quantity actually brought and supplied will shrink as a direct consequence of price flooring, as a result, a part of producer's stock will remain unsold. As shown in the figure the surplus of Q'Q" arises. b) Buffer Stock: In order to maintain the support price, the government may design some programmes to enable producers to dispose of their surplus stocks. One such programme can	4

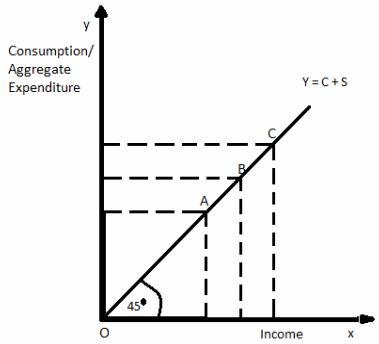
	take the form of buffer stock. Government may purchase the surplus to store or sell it at subsidised prices. Subsidy is required to lower the price and make it competitive in the market. Government may also use it as aid and send it to other countries. (any one to be explained) **Or** Price of a commodity is determined by market demand and market supply of a commodity, (i.e. industry is the price maker). An individual producer/firm has no role in the determination of the price of the commodity (firm is a price taker). No individual seller or buyer can influence the price of the commodity.  DD and SS are Market demand and market supply curves intersecting at E. OQ quantity (Equilibrium Quantity) would be offered for sale and demanded by the buyers at OP price (Equilibrium Price) per unit. The industry is in equilibrium.	
9	Supply of a commodity is affected by following factors: a) Price of factor Inputs: If factor input price increases, cost of production generally rises, accordingly producers are willing to supply less at the existing price as the profit probability decreases. This implies leftward shift in supply curve and vice-versa, keeping other factors constant. b) State of Technology: Improvement in technique of production raises productivity and generally lowers per unit cost of production, consequently the probability to earn more profit also increases and hence the producer is induced to supply more, as a result supply curve shifts towards right. c) Government Taxation Policy: If government increases taxes, it will affect the cost of production adversely and hence supply decreases. But if Government decreases the tax the cost of production will fall and the producer will be induced to increase the supply of the commodity,ceteris paribus.	4
10 a)	If $\frac{MUx}{Px} > \frac{MUy}{Py}$, then it means that satisfaction derived from consumption of good X is greater than the satisfaction derived from consumption of Good Y. Mr Aman will reallocate his income by spending more on good X. Utility derived from X	2

	goes on diminishing and reverse preposition occurs for Good Y, this process will continue till $\frac{MUx}{Px}$ becomes equal to $\frac{MUy}{Py}$.	
b)	The second statement ' Two regular convex to origin indifference curves can intersect each other' is not true as the intersection of two regular indifference curves indicate one such point (point of intersection) which yields the similar satisfaction of two different indifference curves which is not possible. In the figure there are two indifference curves IC1 and IC2 intersecting each other, there is clear violation of assumption of monotonic preference. As per figure satisfaction derived at point A = satisfaction derived at point C (on IC1) And satisfaction derived at point D = satisfaction derived at point E (on IC2) At intersecting point B;  Satisfaction derived by consumer at points A, C and B is equal and A = C = B (On IC1) D = E = B (On IC2) Consequently A = D (which is absurd) Thus we can say that IC's can't intersect each other.	4
	OR	
a)	$P_xQ_x + P_yQ_y = M$ $50Q_x + 10Q_y = 500$	1
b)	Slope of Budget Line = (-) $\frac{P_x}{P_y}$ = (-) $\frac{50}{10}$ = (-) 5	1
c)	IfQy= Zero, then 50Qx + 10Qy = 500 50Qx + 10(0) = 500	2

d)	$Q_x = \frac{500}{50}$ = 10 units Old Py = ₹10 New Py = ₹ 5 (50% of ₹10 = ₹5) If Py falls the consumer will be able to buy more of good Y in the same money income pushing the Y-intercept of the Budget Line away from origin, keeping the X-intercept constant, it rotates outwards and the equation will be 50Qx +5Qy = 500.	2
11	a) Total Variable Cost is zero at zero level of output. It initially increases at decreasing rate and later it increases at increasing rate. TVC is an inversely S-shaped curve due to the Law of Variable Proportion. b) Per unit fixed cost is known as Average Fixed Cost. As the value of Total Fixed Cost doesn't vary at any level of output in short run and if it is divided by an incremental number the result would be diminishing with the same proportion as that of the proportion of increase of the number of units and the product will be same.  Since TFC remains same at different levels of output, AFC falls as the level of output is increased. The AFC keeps on falling as the level of output increases. AFC can never become zero.	2 4
12	(i) We know that the equilibrium price and quantity are achieved at; $Q_d = Q_s$ 200- 10 p = 50 +15p 150 = 25p Therefore, Equilibrium Price p = ₹6 And, Equilibrium Quantity q = 200 – (10) (6) = 140 units	3

	ii) If the price of factor of production has changed, then under the new conditions; $Q_d = Q_s$ $200 - 10p = 100 + 15p$ $25p = 100$ Therefore, Equilibrium Price $p = ₹ 4$ And, Equilibrium Quantity $q = 200 - (10)(4) = 160$ units Thus as the equilibrium price is decreasing the equilibrium quantity is increased.	3
	SECTION B : MACROECONOMICS	
13	Money supply of a country is a stock of money in circulation at any point of time.	1
14	a. Increasing the investment expenditure which will directly benefit the poor. b. Increasing the taxes on rich and using the same amount to benefit the poor. (any one or any other relevant measure)	1
15	All money mobilised by government that either creates a liability of repayment on Government or involves reduction in some of an asset by selling it off.	1
16	Fiscal Deficit = Borrowings = ₹32 Billion	1
17	MPC = 1 – MPS MPC = 1 – 0.2 MPC = 0.8 AD = C+I AD = A +bY AD = 50 + 0.8 (300) AD = ₹ 290 Crores **Or** Multiplier = $\frac{1}{1-MPC}$ When MPC = $\frac{4}{5}$; $K = \frac{1}{1-0.8} = \frac{1}{0.2} = 5$ When MPC = $\frac{1}{2}$ $K = \frac{1}{1-0.5} = \frac{1}{0.5} = 2$ Observing the same we may conclude that there exist positive or direct relation between MPC and Investment Multiplier. Investment Multiplier coefficient measures the change in final income with respect to given change in the initial investment in the economy. It carries direct relation with rate of growth in an economy, i.e. higher the MPC more chance of growth exists in an economy. But, it is a two sided sword hence if investment falls in an economy the income may also fall.	3
18	Aggregate Supply is obtained by adding consumption and saving schedules. The straight line obtained which will originate from point of origin will form a 45 degree angle there by establishing the relation of Y = C+S	3

Level of Income (Y)	Consumption expenditure (C)	Saying (Y-C)	Y = AS = C+S
0	200	-200	0
100	250	-150	100
200	300	-100	200
300	350	-50	300
400	400	0	400
500	450	50	500
600	500	100	600
700	550	150	700



At all points on 45 degree line, Consumption is equal to Income. It helps under the Keynesian Economic analysis.Since the two variables (consumption/Aggregate Expenditure and Income) are measured in the same units, the 45-degree line has a slope of one and it bisects the 90-degree angle formed by the two axes.

19 — 4

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 ventures and projects, it can stimulate savings and Investments in an economy.

ii) Spending on infrastructure of an economy enhances the production activity in different sectors of an economy.Government expenditure is a major factor that generates demand for different types of goods and services in an economy which induces growth in private sector too.

However, before planning such expenditure, rebates and subsidies government should check the rate of inflation and tax rates. Also there may be the risk of debt trap if loans are too high to finance the expenditure.

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i) For the year 2011 as it's the base year

ii) The Real GDP declined in the year 2015-2016. It could be due to high rate of inflation or price levels.

Year	**2014-2015**	**2015 - 2016**	**2016 – 2017**
Nominal GDP	6.5	8.4	9
GDP Deflator	100	140	125
Real GDP $= \frac{Nominal\ GDP}{GDP\ Deflator}$ **x 100**	6.5	6	7.2

21	Reverse Repo rate is the rate at which Central Bank borrows money funds commercial banks. Increase in Reverse Repo Rate induces banks to transfer more funds to Central Bank and reduces banks' ability to create credit. Open Market Operations refers to buying and selling of government securities by Central Bank from/to public and commercial banks. Sale of such securities reduces the reserve of commercial banks and adversely affects bank's ability to create credit and hence decreases the money supply in the economy. **Or** The credit creation by commercial banks is determined by amount of initial deposit and the legal reserve ratio. Suppose customer deposits ₹ 1000 in bank. Bank has to pay interest on this amount for which bank should lend this money to someone. A part of the amount is to be retained with bank to meet its customer's obligations. Say, if LRR is 20%, the banks will keep 20% of deposits as reserves and will lend remaining 80% i.e. ₹800. Those who borrow will spend this money and same ₹800 will come back to banks in form of deposits. This raises the total deposits to ₹ 1,800 now. Banks again keep 20% of 800 as reserve and lend ₹ 640 to those who needs. This will further raise the deposits with banks. In this way deposits will go on increasing @ 80% of the last deposit. The number of times the total deposit will become, is determined by money multiplier i.e. 1/LRR = 1/0.2 = 5 times. Total deposits will be Initial Deposits X Money Multiplier = ₹ 1000 X 5 = ₹ 5,000	4
22	a. Externality occurs when the actions of consumers or producers give rise to negative or positive side effects on third party who are not part of these actions, and whose interests are not taken into consideration. E.g. :- introduction of metro rail on one hand has increased the prices of property but has also saved the time and money of general public and has provided safe means of transport b. National Income by Expenditure Method = Private Final Consumption Expenditure + Government Final Consumption Expenditure + Net Domestic Capital Formation + Net Exports + NFIA - NIT National Income by Expenditure Method = v + ix + vi + iii + viii - ii National Income by Expenditure Method = 900 + 400 + 200 + (-25) + (-10) - 100 National Income by Expenditure Method = ₹ 1365 Crores **Or** (i) Yes it will be included as its part of Factor Income earned in domestic territory of the country. (ii) Payment of fees to a Chartered Accountant is an intermediate expenditure for the firm. Hence it is to be deducted from the value of output of the firm to obtain value added. Hence it is not included in domestic factor income of India	6

	(iii) No, as rent received be Indian resident from Russian embassy will be part of Fcator Income received from abroad as Russian Embassy is not part of domestic territory of the country. (iv) No, as compensation is given by insurance company to employee and not by employer.	
23	i) True, as planned savings are more causing the Marginal Propensity to Consume to reduce thus Aggregate Demand will fall and producers will have accumulation of inventory. ii) False, Inflationary Gap exists when actual Aggregate Demand is more than Aggregate Supply corresponding to full employment level of output in the economy. iii) False, at income levels which are lower than break-even point, Average propensity to save can be negative as there will be dissaving in the economy.	6
24	a) Depreciation and Devaluation both imply a fall in external value of a currency; however the term depreciation is used under the floating exchange rate system that is when the exchange rate system is determined by the combined market forces of demand and supply. A currency loses or gains value because of fluctuations in demand and supply. The term devaluation is used in a system of fixed exchange rates. In this system, the exchange value of a currency is decided by the government. Devaluation of currency is the deliberate action of the government. Depreciation and devaluation of a currency normally encourages exports from a country, as exports become cheaper for the foreign nationals and foreign currency can now buy more of domestic goods, i.e. the international competitiveness of the goods and services of such a nation gets better. b) The transactions carried on by monetary authorities of a country, which causes changes in official reserves are termed as official reserve transactions Autonomous receipts and autonomous payments give rise to either deficit or surplus on balance of payments. The central bank may finance a deficit by : i. reducing reserves of foreign currency ii. by borrowing from the IMF or monetary authorities This will be shown as decrease in reserves.The central bank may use surplus to purchase foreign securities, foreign currency, gold etc. which may result in increase in reserves of the nation.	3 3