

Hints/Solutions to Studymate Practice Boards Paper
Economics (Class – XII)

Code No. 30/1

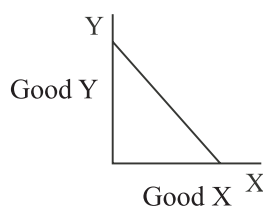
GENERAL INSTRUCTIONS FOR CORRECTION

1. The marking scheme carries only suggested value points for the answers. These are only guidelines and do not constitute the complete answers. Students can have their own expression and if the expression is correct, marks should be awarded accordingly.
 2. People examine each part of a question carefully and allocate the marks allotted for the part as given in the 'Marking Scheme' below. Total marks for any answer may be put in a circle on the left side where the answer ends.
 3. For mere arithmetical errors, there should be minimal deduction. Only $\frac{1}{2}$ mark should be deducted for such an error.
 4. Where only two/three or a 'given' number of examples/factors/points are expected, only the first two/three or expected number should be read. The rest are irrelevant and must not be examined.
 5. There should be no effort at 'moderation' of the marks by the evaluating teachers. The actual total marks obtained by the candidate may be of no concern to the evaluators.
 6. Higher order thinking ability questions are for assessing a student's understanding/analytical ability.
 7. In case of a numerical question, no marks should be awarded if only the final answer has been given, even if it is correct.
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1. False. TP will increase at a decreasing rate. [1]
2. (b) Average cost will fall. [1]
3. (c) be constant [1]
4. Positive statement [1]
5. (a) The demand of mobile Samsung J7 will fall, hence demand curve of Samsung J7 shifts towards left as they are substitutes. [1]
 (b) The demand of Samsung J7 may increase, as people may prefer to consume more of Samsung J7 instead of Moto G5+. Thus, demand curve shifts rightwards. [1]
 (c) There will be downward movement on the same demand curve, i.e., expansion in demand. [1]
6. "Integrated Child Development Programme Series (ICDS)" is leading to increase in healthy and education levels of the country, and thus leads to productivity of human resources. [1]
 The PPC will shift rightwards as the economy [1]
 is able to increase production of both the goods. [1]

OR

Commodity A	Commodity B	MRT = $\frac{\text{Loss of output}}{\text{Gain of output}}$
25	0	5 : 1
20	1	5 : 1
15	2	5 : 1
10	3	5 : 1
5	4	5 : 1
0	5	5 : 1

Table
[2]Diagram
[1]

7. Equilibrium for two commodity is

$$\frac{MU_B}{P_B} = \frac{MU_C}{P_C} = MU_m$$

If price of cake falls

$$\frac{MU_B}{P_B} < \frac{MU_C}{P_C}$$

[1]

Since per rupee utility for cake will be more than per rupee utility for Burger, consumer will buy more of cake and less of burger.

MU of cake will begin to fall and MU of burger will begin to rise.

Consumer will keep on buying more cakes till $\frac{MU_C}{P_C} = \frac{MU_B}{P_B}$

Explanation [2]

8. When 2000 tonnes of onions will be imported supply curve will shift rightwards.
 Due to rightward shift, excess supply will be created in the market.
 This will result in competition among the producers. Price will begins to fall.
 Due to fall in price, there will be contraction along the supply curve and expansion along the demand curve.
 Price will continue to fall till excess supply becomes zero.
 When there is an increase in supply demand remaining unchanged the supply curve shifts towards right from SS to S₁S₁ as seen in figure.

Explanation [2]

Conclusion:

- (i) Market Equilibrium shifts from E to E₁.
- (ii) Equilibrium price falls from OP to OP₁.
- (iii) Equilibrium quantity rises from OQ to OQ₁.

Conclusion [1]

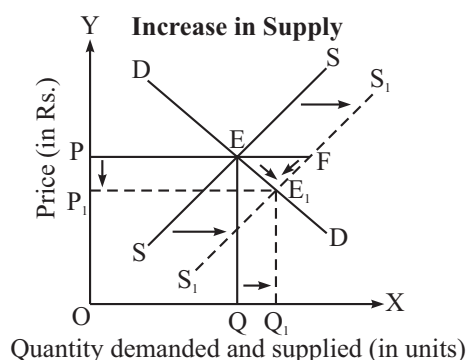


Diagram [1]

OR

- (a) It is monopolistic competition. [1]
 Any two features: **Features [½×2=1]**
 - (i) Differentiated products
 - (ii) Selling cost
 - (iii) Free entry and exit of firms.
- (b) Oligopoly. [1]
 Any two features: **Features [½×2=1]**
 - (i) Interdependence between firms.
 - (ii) Indeterminateness of demand curve.
 - (iii) Non-price competition.
 - (iv) Group behaviour.
 - (v) Entry barriers.

9. (a) $E_s(Y) = \frac{1}{2} E_s(x)$ **Formula [1]**

$$E_s \text{ of commodity X} = \frac{\% \text{ change in quantity supplied of X}}{\% \text{ change in price of X}} = \frac{40}{16} = 2.5 \quad [½]$$

$$E_s(Y) = \frac{1}{2} E_s(x) = \frac{1}{2} \times 2.5 = 1.25 \quad [½]$$

$$E_s(Y) = \frac{\% \text{ change in quantity supplied of Y}}{\% \text{ change in price of Y}}$$

$$1.25 = \frac{\% \text{ fall in quantity supplied of Y}}{8} \quad [1]$$

$$\% \text{ fall in quantity supplied of Y} = 8 \times 1.25 = 10$$

- (b) (i) Demand curve is perfectly elastic
Price will remain same.
Thus, slope = $(-)\frac{\Delta P}{\Delta Q} = (-)\frac{0}{\Delta Q} = 0$ [½]

- (ii) Demand curve is perfectly inelastic, it implies $\Delta Q = 0$
Slope = $(-)\frac{\Delta P}{\Delta Q} = (-)\frac{\Delta P}{0} = \infty$ [½]

10. (a) False, in the short run factor ratio keeps on changing as variable factor is continuously increased with the given amount of fixed factor. [1]

- (b) False, when total revenue is constant, average revenue will decline as

$$AR = \frac{TR}{\text{output sold}}$$

If TR is constant when more units of output are sold, AR will decline. [1]

- (c) False, producer will incur implicit cost as he will not be able to earn interest on it. [1]

- (d) False, AVC is a U-shaped due to law of variable proportions. In the beginning it falls due to increasing returns to variable factor and then it rises due to diminishing returns to variable factor. [1]

- (e) True, $AFC = \frac{TFC}{Q}$

TFC is constant and it does not change with change in output.

When output decreases and TFC is constant, AFC will increase. TFC is spread amongst less units of output. [1]

- (f) True, Marginal cost is addition to total cost when one more unit of output is produced. Addition to total cost can be only due to variable cost as fixed cost does not change. [1]

11. (a) $Q^D = 1000 - p$ $Q^S = 700 + 2p$

At equilibrium, $Q^D = Q^S$

$$\mathbf{1000 - p = 700 + 2p} \quad [1]$$

$$\Rightarrow 1000 - 700 = 3p$$

$$\Rightarrow 300 = 3p$$

$$\Rightarrow p = 300/3 = 100$$

Equilibrium price = Rs. 100 [½]

$$1000 - p = 700 + 2p$$

$$Q^D = 1000 - 100 = 900$$

$$Q^S = 700 + 2 \times 100 = 900$$

Equilibrium quantity = 900 units [½]

- (b) New $Q^D = 1300 - p$ $Q^S = 700 + 2p$

$$\mathbf{1300 - p = 700 + 2p = 1300 - 700 = 3p} \quad [1]$$

$$\Rightarrow 1300 - 700 = 3p$$

$$\Rightarrow 600 = 3p$$

$$\Rightarrow p = 600/3 = \text{Rs. } 200$$

New equilibrium price = Rs. 200

$$Q^D = 1300 - 200 = 1100 \text{ units}$$

$$Q^S = 700 + 2(200) = 700 + 400 = 1100 \text{ units}$$

Equilibrium quantity rises to 1100 units. [½]

Equilibrium price also rise from Rs. 100 to Rs. 200. [½]

- (c) Imposition of tax of Rs. 3 per unit of salt will raise cost of producing salt.

$$S = 700 + 2(p - 3)$$

Equilibrium will be where, $Q^D = 1300 - p$ and $Q^S = 700 + 2(p - 3)$ will be equal.

$$\Rightarrow \mathbf{1300 - p = 700 + 2(p - 3)} \quad [1]$$

$$\Rightarrow 1300 - p = 700 + 2p - 6$$

$$\Rightarrow 1300 - 700 + 6 = 3p$$

$$\Rightarrow 600 + 6 = 3p$$

$$\Rightarrow p = 606/3 = 202$$

$$Q^D = 1300 - p = 1300 - 202 = 1098$$

$$Q^S = 700 + 2(p - 3) = 700 + 2(202 - 3) = 1098$$

$$= 700 + 2 \times 199 = 700 + 398 = 1098$$

Equilibrium price will rise from 200 to 202.

[½]

Equilibrium quantity will fall from 1100 to 1098.

[½]

12. (a) Slope of budget line = MRE = $\frac{P_x}{P_y} = 3$

[½]

Slope of IC = MRS = 4

[½]

Consumer equilibrium

Explanation [2]

(i) $MRS = P_x/P_y$

(ii) MRS must decline.

$\therefore MRS = 4, P_x/P_y = 3$

Since $MRS \neq P_x/P_y$

\therefore Consumer is not in equilibrium.

If $MRS_{xy} > MRE$ it implies that the consumer is willing to sacrifice more unit of Y than what market requires. This induces the consumer to buy more of X. When he buys more of X, utility derived from X falls and he is willing to sacrifice less of Y. Thus MRS_{xy} starts declining. He continues to consume more of X, till $MRS_{xy} = MRE = P_x/P_y$.

(b) (i) He will buy 5 units where his TU will be maximum and MU will be zero. [1]

(ii) Consumer will buy 4 units of X as his rupee satisfaction derived from X is equal to P_x . **Explanation [1]**

If MU_x (money) $> P_x$, consumer keeps on consuming more units. When he consumes more unit, the additional utility derived from consuming x keeps on falling. He keeps on consuming till MU_x (money) = P_x .

Units	MU_x (Utils)	MU_x/MU_M	P_x	Total Gain
1	20	5	2.5	2.5
2	18	4.5	2.5	2
3	16	4	2.5	1.5
4	10	2.5	2.5	0
5	0	0	2.5	-2.5
6	-5	-1.25	2.5	-3.75

Table [1]

OR

(a)

Combination	Units of Good X	Units of Good Y	MRS = Units sacrificed/ Units gained
A	1	14	-
B	2	10	4
C	3	7	3
D	4	5	2
E	5	4	1

Formula [1]

Calculation [1]

(b) Equilibrium is determined where $MRS = \text{Price of Good X} / \text{Price of Good Y} = \frac{P_x}{P_y} = \frac{4}{2} = 2$ [1]

Thus, consumer will buy 4 units of Good X and 5 units of Good Y. [1]

If $MRS_{XY} > MRE$ it implies that the consumer is willing to sacrifice more unit of Y than what market requires. This induces the consumer to buy more of X. When he buys more of X, utility derived from X falls and he is willing to sacrifice less of Y. Thus MRS_{XY} starts declining. He continues to consume more of X, till $MRS_{XY} = MRE = P_x/P_y$.

If $MRS_{XY} < MRE$, it implies consumer is willing to sacrifice less units of Y than what the market requires. He decreases the consumption of X. Due to this MRS_{XY} began to rise, he continues to decrease the consumption of X till $MRS_{XY} = MRE$. **Explanation [2]**

13. (a) forfeitures [1]

14. False, money supply only includes time demand deposits of the people with the commercial banks. [1]

15. Redistribution of income. [1]

16. Increase in margin requirements. [1]

17. (a) $\bar{C} = 300$ $I = 300$
 $MPC = 2/3(MPS)$
 We know, $MPC + MPS = 1$
 $\Rightarrow 2/3MPS + MPS = 1$
 $\Rightarrow 2MPS + 3MPS = 3$
 $\Rightarrow 5MPS = 3$
 $\Rightarrow MPS = 3/5 = 0.6$
 $\Rightarrow \mathbf{MPC = 0.4}$ [½]

Thus, equilibrium level of income will be where, **AD = AS** [½]

$C + I = Y$
 $\Rightarrow Y = \bar{C} + bY + I$
 $\Rightarrow Y = 300 + 0.4Y + 300$
 $\Rightarrow Y = 600 + 0.4Y$
 $\Rightarrow Y - 0.4Y = 600$
 $\Rightarrow 0.6Y = 600$
 $\Rightarrow Y = 600 \times 10/0.6 = \text{Rs. } 1000 \text{ crore}$

No, the economy will not be at equilibrium at Rs. 1000 crore. **Working [1]**

(b) The stock of unplanned inventory will be = $AS - AD = 1200 - 1000 = \text{Rs. } 200 \text{ crore}$ [1]

18. Given,

$C = 200 + 0.75Y$
 $S = -200 + (1 - 0.75)Y = -200 + 0.25Y$

Level of income where saving is zero

$0 = -200 + 0.25Y$
 $\Rightarrow 0.25Y = 200$
 $\Rightarrow Y = 200/0.25 \times 100 = \mathbf{\text{Rs. } 800 \text{ crore}}$ [1]

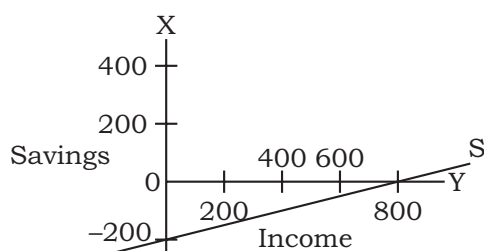


Diagram [1]