Answers to RSPL/1

1. (*a*) Only variable cost

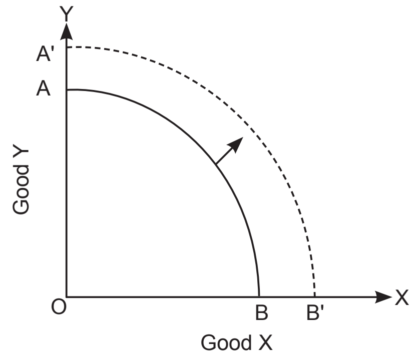
2. Gross profits are the difference between total revenue and total variable cost.

3. (*b*) Higher

4. Average revenue

5. (*b*) Buy more of good X and less of good Y

6. *Pradhanmantri Kaushal Vikas Yojana* will increase the number of skilled workers in the economy, which will increase the production capacity of the Indian economy. It will, further, result in rightward shift in production possibility curve.



7.

	Price	Quantity Supplied	Revenue
Original	100	5	500
New	**150**	5	750

New price = 100 + 50% of 100 = 150

$$E_s = \frac{\Delta q}{\Delta p} \times \frac{p}{q}$$

$$= \frac{0}{50} \times \frac{100}{5} = 0$$

OR

(*a*) **False.** The supply curve of a good does not shift to the right when its own price rises. It shifts due to factors other than the price. Rise in own price of the commodity results in upward movement along the supply curve.

(*b*) **False.** Average cost curve and average variable cost curve never intersect as average fixed cost is never zero.

8. This problem is essentially the problem of choice of technique of production. This problem arises because there are more than one way of producing the commodities. There are mainly two techniques of production, *i.e.*, capital intensive technique and labour intensive technique. Capital intensive technique uses more capital and less labour while labour intensive technique uses more labour and less capital. The guiding principle is to use the most efficient technique of production. It is the one which uses the least amount of scarce resources to produce the output. For example, Cloth can be produced by handloom or powerloom. Former is the labour intensive technique and the latter is capital intensive technique.

9. (*a*) **True.** Budget line is a straight line curve because the slope of the budget line which is given by (–) $\frac{P_X}{P_Y}$ is constant.

(*b*) **True.** Combinations lying on higher indifference curves are superior combinations as they either have more of both the goods or more of one good and same amount of the other good. Hence, they give higher satisfaction than those inferior combinations which lie on lower indifference curves.

OR

Units	TU_x	MU_x	MU in terms of money ($\frac{MU_x}{MU}$ of a rupee)	Price
0	0	–	–	2
1	50	50	5	2
2	90	40	4	2
3	110	20	2	2
4	120	10	1	2
5	120	0	0	2
6	100	–20	–2	2

The consumer attains equilibrium at 3 units of the commodity as according to cardinal utility approach (single commodity case), the consumer attains equilibrium when given condition is met.

MU in terms of money = Price of the commodity

10. Electricity is the variable factor of production, *i.e.,* the factor of production which changes with the change in output. Expenditure on electricity is the variable cost, *i.e.,* the cost which varies with the variation in the output. It is not incurred at zero level of output. It increases with the increase in the level of output and decreases with the decrease in the level of output. Hence, increase in electricity tariff for commercial use would increase the variable cost of the industry.

11. Suppose original price is ₹ 100 and original quantity is 10 units.

	Price	Quantity demanded	Total expenditure (P × Q)
Original	100	10	1,000
New	120	10	1,200

$$E_d = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

$$= \frac{0}{20} = 0$$

12. (*a*) The implications of single seller in monopoly are:

(*i*) There is no difference between firm and industry. Hence, there is no competition.

(*ii*) A firm has full control over the price of the commodity.

(*iii*) There is no choice for the consumers as there is single commodity in the market.

(*b*) The implications of product differentiation in monopolistic competition are:

(*i*) The goods are close substitutes of one another as they are different in respect of colour, size, quality, design, packaging etc.

(*ii*) There is ample choice for the consumers.

(*iii*) The price elasticity of demand is elastic, *i.e.*, Ed > 1.

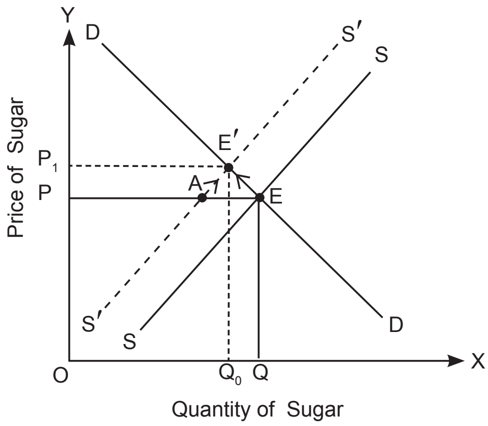
OR

Basis of difference	Perfect Competition	Oligopoly
(*a*) Number of sellers	There are very large number of sellers.	There are a few big firms.
(*b*) Share in the total output	Single firm's share in total output is negligible.	Each firm has a substantial share in the total output.
(*c*) Nature of product	Products are homogeneous.	Products may be homogenous (perfect oligopoly) or differentiated (imperfect oligopoly).
(*d*) Freedom of entry	There is freedom on the entry of new firms.	There are restrictions on the entry of new firms.
(*e*) Profits in the long run	All firms earn only normal profit in the long run due to free entry and exit.	Firms may earn supernormal profit in the long run due to restrictions on the entry of new firms.
(*f*) Interdependence	Firms are not interdependent on one another.	Firms are interdependent on one another as action of one firm provokes the other firm to react.
(*g*) Shape of the demand curve	It is straight line parallel to *x*-axis.	It is indeterminate due to the interdependence among the firms.

(*any six*)

13. The equilibrium price of sugar will rise while equilibrium quantity demanded and supply of sugar will fall due to rise in price of sugarcane. The chain effects of increase in price of sugarcane are:

(*a*) Since, sugarcane is used as an input to manufacture sugar, the rise in its price will increase the cost of production of sugar. This will reduce the profitability which will further decrease the supply of sugar. There will be a leftward shift in the supply curve from SS to S'S' as shown in the given diagram.



(*b*) Now, at Price OP, there is excess demand shown by the horizontal distance AE in the given diagram. Due to excess demand, there will be competition among buyers.

(*c*) Due to this, the price of sugar will start rising.

(*d*) This will cause expansion of supply and contraction of demand.

(*e*) This will continue till the excess demand becomes zero and new equilibrium (E′) is reached.

Price of sugar	Market demand of sugar	Market supply of sugar	New Market supply of sugar
1	100	40	20
2	90	50	30
3	80	60	40
4	70	70	50
5	60	80	60
6	50	90	70

Equilibrium price of sugar has increased from ₹ 4 to ₹ 5 and equilibrium quantity demanded and supplied has decreased from 70 units to 60 units due to rise in price of sugarcane.

14. No, he is not in equilibrium.

Let the two goods be X and Y.

Given P_X = ₹ 4, P_Y = ₹ 2 and MRS = 4.

According to Indifference curve approach, a consumer is said to be in equilibrium when $MRS = \frac{P_X}{P_Y}$.

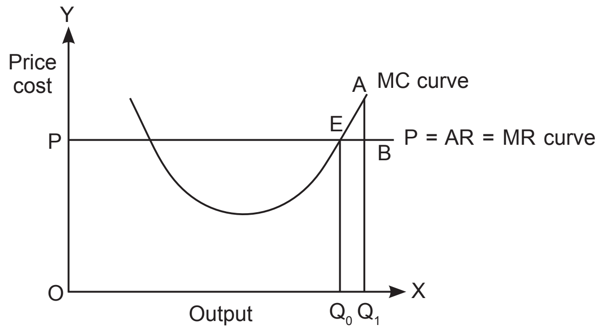
By substituting values, we find that $4 > \frac{4}{2}$ and as $MRS > \frac{P_X}{P_Y}$ which means that consumer is willing to pay more for one more unit of good X as compared to what the market demands. The consumer will buy more and more of good X.

As a result, Marginal Rate of Substitution will fall due to the Law of Diminishing Marginal Utility. This will continue till $MRS = \frac{P_X}{P_Y}$ and consumer is in equilibrium.

15. If P < MC, firm under perfect competition will decrease production. According to MR-MC approach, producer attains equilibrium if following two conditions are met:

(*a*) MR = MC

(*b*) MC is rising



In the given diagram, P = AR = MR and it is a straight line curve parallel to *x*-axis. This is because firm is under perfect competition.

The equilibrium point is E and the corresponding output OQ_0 is the equilibrium output.

If P (BQ_1) < MC (AQ_1), it implies that each additional unit of output contributes more to the cost and less to the revenue. Due to this, the firm will decrease production. This will continue till it reaches OQ_0 level of output.

16. Primary deficit refers to the difference between fiscal deficit and interest payments.

17. (*d*) Government spending

18. (*a*) Income from property and entrepreneurship.

19. The motive of Central Bank is to promote welfare of the people while motive of commercial bank is to maximize profit.

20. (*b*) Capital expenditure

21. The loans taken by the government of India from foreign governments are recorded in the Capital Account of Balance of Payments Accounts. It is because all those international transactions which affect the liability of a country are recorded in capital account.

It is recorded on the credit side as it results in inflow of foreign exchange in India.

OR

(*a*) It is recorded in the Capital account as sale of shares to Korean resident affects the assets of India. It is recorded on the credit side as it results in inflow of foreign exchange in India.

(*b*) It is recorded in the Current account as these are unilateral transfers. It is recorded on the credit side as it results in inflow of foreign exchange in India.

(*c*) It is recorded in the Current account as these are export of services. It is recorded on the credit side as it results in inflow of foreign exchange in India.

22.

$$\text{MPS} = 0.4$$

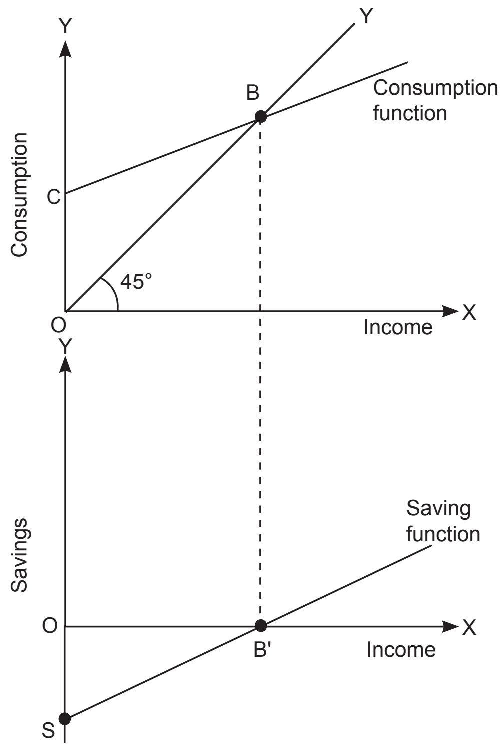
$$k = \frac{1}{\text{MPS}} = \frac{1}{0.4} = 2.5$$

$$\text{Also, } k = \frac{\Delta Y}{\Delta I}$$

$$2.5 = \frac{\Delta Y}{7{,}000}$$

$$\Delta Y = ₹\ 17{,}500 \text{ crores}$$

23. Break-even point is the point where National Income is equal to Consumption in the economy and Savings are zero.



In the given diagram, B is the break-even point where Income = Consumption and Savings are zero. The corresponding level of income OB′ is the break-even income.

To the left of OB′, Consumption > Income and hence Savings are negative and to the right of OB′, Consumption < Income and hence Savings are positive.

24. GVA_{MP} = Value of output – Intermediate consumption

= Sales + Change in stock – Intermediate consumption

= Domestic sales + Exports + Change in stock – Intermediate consumption

= 2,000 + 200 + 50 – 1,000 = ₹ 1,250 crores

NVA_{MP} = GVA_{MP} – Consumption of fixed capital

= 1,250 – 50 = ₹ 1,200 crores

25. Speculators demand foreign exchange so that they can speculate on the value of foreign exchange. They purchase foreign exchange at some price and wait for the price to rise so that they can sell it at the higher price. This enables them to make profit.

For example, when the exchange rate is 1$ = ₹ 40.

Speculators demand foreign exchange and purchase 5$ by giving away ₹ 200.

When the exchange rate increases to 1$ = ₹ 50, they sell 5$ and get ₹ 250 in return.

This enables the speculators to gain ₹ 50 from these transactions.

26. (*a*) Externalities which refer to benefits or harms of an activity caused by a firm or an individual, for which they are not paid or penalized, do not form part of market transactions.

(*b*) The activities which result in benefits to others are called positive externalities and the activities which cause harm to others are called negative externalities. Both the types of externalities affect the welfare of the people of the country but are not taken into account while calculating GDP.

(*c*) Example of negative externality: Air pollution caused by the factories. It reduces the welfare of the people but the factory owners do not compensate the society for that. Hence, it is not considered in GDP. This makes GDP an inadequate measure of welfare.

(*d*) Example of positive externality: A beekeeper keeps the bees for their honey. These bees help in pollination of surrounding crops. It increases the welfare of the producers of those crops but the beekeeper is not compensated for that. Hence, it is not considered in GDP. This makes GDP an inadequate measure of welfare.

OR

No, Net exports and Net factor income from abroad are not the two names of the same concept. These are two different concepts.

(*a*) Net exports refers to the difference between exports and import of goods and services while net factor income from abroad refers to the difference between factor income earned from abroad and factor income paid to abroad.

(*b*) Net exports is a domestic concept while Net factor income from abroad is a national concept.

(*c*) Net exports include non-factor services like shipping, banking etc. while Net factor income from abroad includes only factor services.

(*d*) The components of Net exports are exports of goods and services and Imports of goods and services while components of Net factor income from abroad are net compensation to employees, net income from property and entrepreneurship and net retained earnings.

27. Government aims at reallocation of resources through its budgetary policy. There is a need for reallocation of resources by the government of a country to maintain the balance between the goals of profit maximization and social welfare.

Private enterprises always allocate resources to those areas of production where profits are high. However, it is possible that such areas of production may not promote social welfare.

The two budgetary measures used for reallocation of resources are:

(*a*) **Tax or subsidies.** Government imposes taxes or provides subsidies to reallocate the resources. For example, production of whisky and cigarettes is discouraged through heavy taxation while production of *khadi* is encouraged through subsidies.

(*b*) **Directly producing goods and services.** Government can directly produce those goods and services which promote welfare of people of the country but are not produced by the private sector.

28. The Reserve Bank of India decreases the LRR to increase the demand in the economy in the situation of deficient demand and increases the LRR to decrease the demand in the economy in the situation of excess demand.

According to LRR, commercial banks are required to maintain reserves. LRR has two components:

(*a*) **Cash reserve ratio.** It refers to minimum percentage of net demand and time deposits which commercial banks are required to keep with the Central Bank.

(*b*) **Statutory liquidity ratio.** It refers to minimum percentage of net demand and time deposits which commercial banks are required to keep with themselves in the form of liquid assets.

In the situation of excess demand, RBI increases the LRR. This reduces the lending capacity of the commercial banks which further results in fall in investment in the economy. Fall in investment results in decrease in aggregate demand in the economy.

In the situation of deficient demand, RBI decreases the LRR. This increases the lending capacity of the commercial banks which further results in rise in investment in the economy. Rise in investment results in increase in aggregate demand in the economy.

29. Money overcomes the problem of difficulty in storing wealth in barter system as it is not possible to store value in the barter exchange because goods tend to wear-out or perish. It is convenient to store value in terms of money because money is generally acceptable, value of money remains relatively stable compared to other commodities and it is convenient to store money.

(*a*) **Medium of exchange/payment.** It implies that money can be used to make payments for goods and services. Money has no power to satisfy human wants but it has the power to buy goods and services which satisfy human wants.

Money as a medium of exchange or as a medium of payment overcomes the problem of lack of double coincidence of wants in barter system by dividing the exchange transactions into two parts, *i.e.*, sale and purchase. It allows sale and purchase to be conducted independently of one another.

(*b*) **Measure of value/Unit of account.** Money is the measuring rod, *i.e.*, the values of goods and services are expressed and measured in terms of money. Money has removed the difficulty of lack of common measure of value in barter system as it acts as a common denominator into which the values of all goods and services are expressed.

(*c*) **Standard of deferred payments.** It implies that money can be used for making payments which are to be made in future. Payment of loans also refers to the deferred payments. Money serves as a medium which helps in making payment of the principal amount and interest.

Money overcomes the problem of Lack of standard for deferred payments in barter system as it is difficult to make such payment in terms of goods and services. Thus, money simplifies borrowing and lending operations.

(*d*) **Store of value.** Money as a store of value implies that it can be used to to store wealth and transfer purchasing power from present to future. It can be used to purchase any good or service in future or to pay future debts.

30. (*a*) Yes, it is included in domestic income of India as American Express Banks' branch is located in domestic territory of India.

(*b*) No, it is not included in domestic income of India as it is a transfer payment.

(*c*) Yes, it is included in domestic income of India as it is a part of gross domestic capital formation.

(*d*) Yes, it is included in domestic income of India as the income is generated in Indian embassy which is a part of domestic territory of India.

OR

By Income Method:

$$\begin{aligned} NDP_{FC} &= (x) + (ii) + (iii) + (iv) + (xiv) \\ &= 1{,}200 + 300 + 500 + 200 + 240 \\ &= ₹\ 2{,}440 \text{ crores} \\ GNP_{FC} &= NDP_{FC} + (v) + (vii) \\ &= 2{,}440 - (-50) + 10 \\ &= ₹\ 2{,}500 \text{ crores} \end{aligned}$$

By Expenditure Method:

$$\begin{aligned} GDP_{MP} &= (vi) + (xi) + (xiii) + (ix) + (xii) \\ &= 800 + 300 + 1{,}000 + 300 + 100 \\ &= ₹\ 2{,}500 \text{ crores} \\ GNP_{FC} &= GDP_{MP} + (v) - (viii) \\ &= 2{,}500 - (-50) - (50) \\ &= ₹\ 2{,}500 \text{ crores} \end{aligned}$$