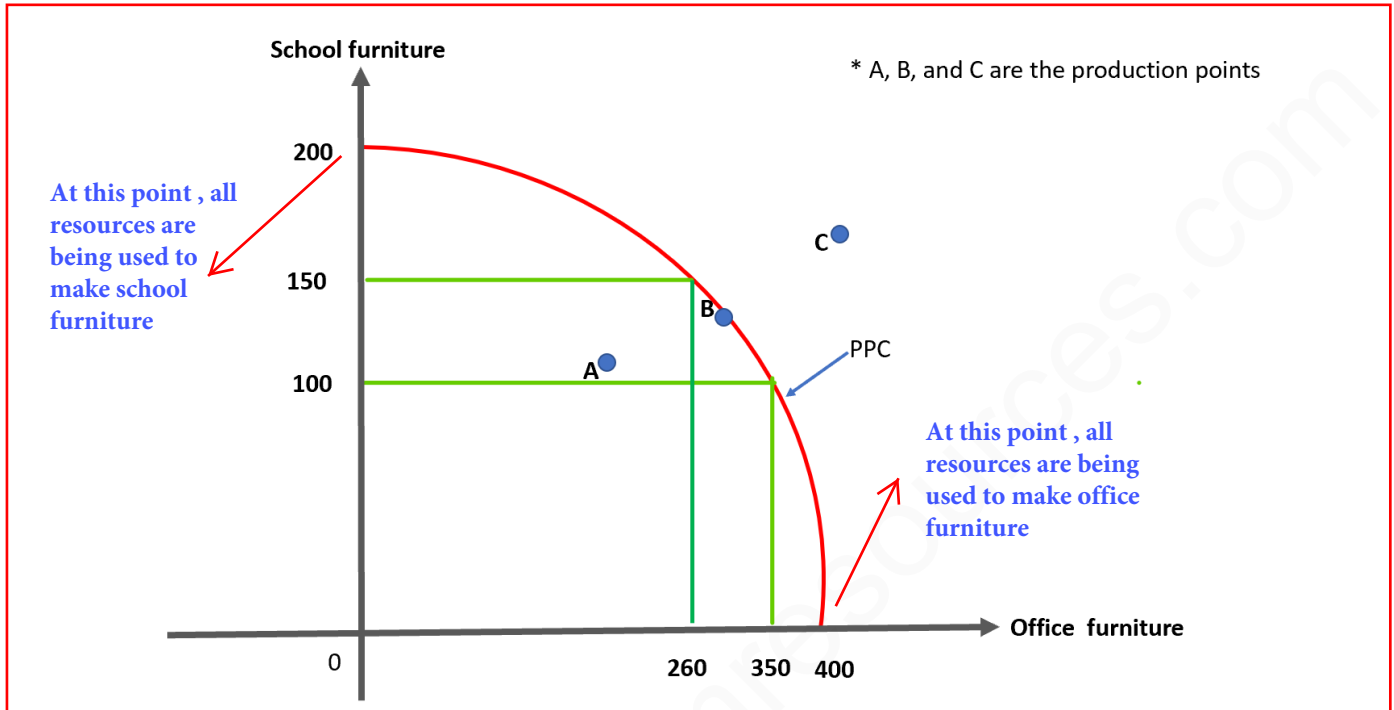


PRODUCTION POSSIBILITY CURVE (PPC) OR PRODUCTION POSSIBILITY FRONTIER OR PRODUCTION POSSIBILITY BOUNDARY

KEYPOINTS:



- **The production possibility curve:** It is a curve that shows the maximum output of two types of products and combination of those products that can be produced with existing resources and technology.
 - **A PPC shows how much maximum product can be produced**
 - **A production point shows what is being produced or what may be produced in future**
- **Points under, on and beyond the PPC:**
 - **Point under the PPC (Point A):** This point indicates under-utilisation of resources. In other words this means that some resources are unemployed when goods are being produced.
 - **Point on the PPC (Point B):** This point indicates maximum utilisation of resources and in terms of the output, it is efficient. In other words this means that no resources are unemployed when goods are being produced.
 - **Point above the PPC (Point C):** This point indicates an unattainable point. This is because there are not enough resources to produce outside the limit set by the PPC.

Note: A PPC shows the maximum possible output for two goods or services with a given amount of resources

➤ **Movements along the PPC:**

- Any movement of a point along a PPC is an indication of the re-allocation of the resources.

Example: When manufacturing 100 units of school furniture and 350 units of office furniture, more resources went into making the office furniture units. A decision to make 150 units of school furniture means more resources have to be employed while creating the additional 50 units of school furniture.

➤ **Shape of the PPC**

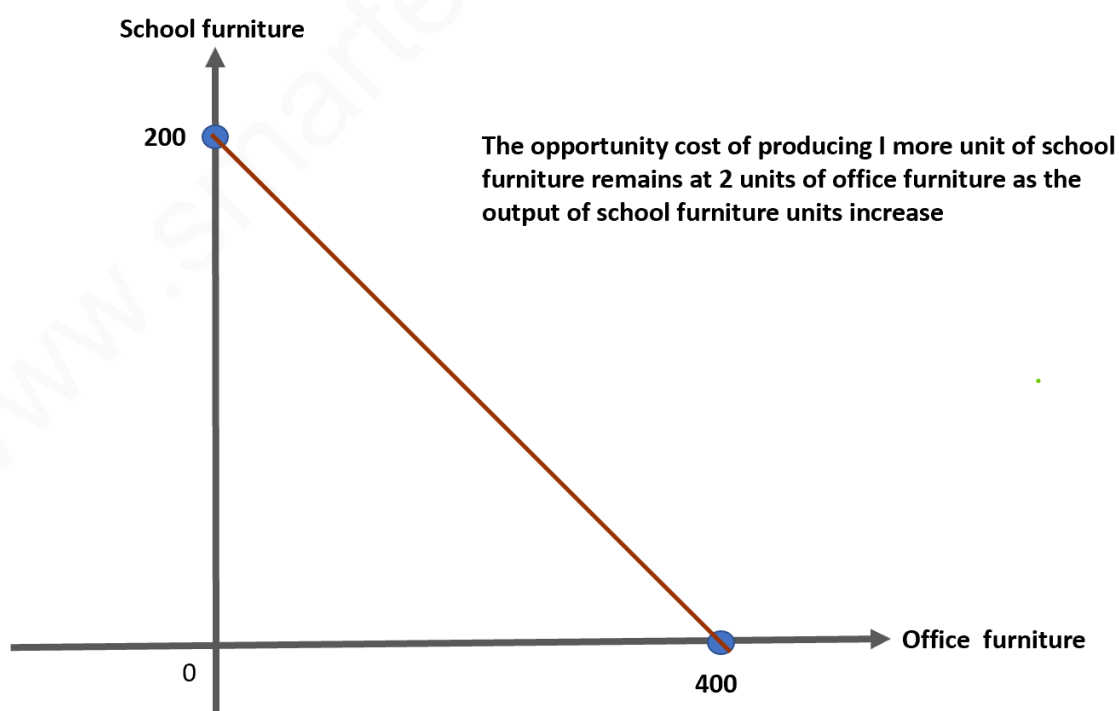
- The shape of the PPC can be bowed out [usual shape] or a straight line[very rare case]

DESCRIBING THE BOWED PPC CURVE

- Usually when an increased quantity of one of the products is being manufactured, it results in a reduction in the quantity of the other type of product. The quantity of the second product that could not get produced is the opportunity cost of producing an increased amount of the first product.
- Example: A decision to manufacture 150 units of school furniture instead of 100 units leads to an opportunity cost of producing 90 (350-260=90) units less of office furniture[Refer figure above]

DESCRIBING THE STRAIGHT-LINE PPC CURVE

- **But if there can be a situation when the resources are capable of producing both kind of products equally, then the opportunity cost remains constant. So the shape of the PPC is a straight line as shown below**



BOARD EXAM QUESTIONS

M/J/14-P21-Q2C

Using a production possibility curve diagram, analyse the impact of an increase in resources on an economy. [5]

MARKSCHEME:

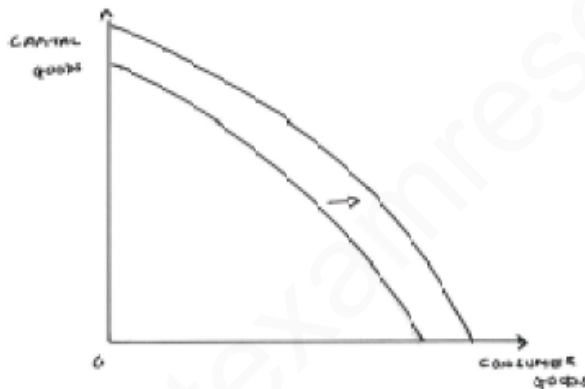
Up to 3 marks for the diagram:

1 mark for the original curve or downward sloping line which must touch the axes.

1 mark for axes correctly labelled in terms of two different products or types of products.

1 mark for showing the curve or line shifted out to the right.

Figure 2 (c)



Up to 2 marks for written analysis:

1 mark for an increase in resources moves the PPC to the right.

1 mark for more resources enables an economy to produce more of both products/increase productive potential/economic growth.

1 mark for whether output increases or not will depend on what happens to the production point.

USE THE FOLLOWING SPACE TO ANALYSE THE ABOVE MARKSCHEME

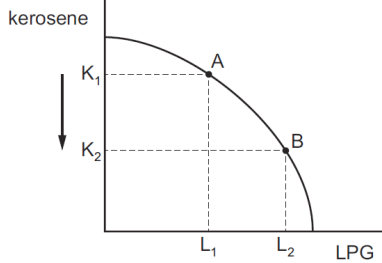
M/J/18-P23-Q6C

Analyse, using a production possibility curve (PPC) diagram, the effect of reallocating resources from kerosene to LPG.

6

MARKSCHEME:

Award up to 4 marks for a correct diagram:



- Axes labels LPG and kerosene (1)
- Curve / downward sloping line drawn to axes (1)
- Two production points illustrating increased production of LPG (1)
- New production point indicated (1)

Accept points on the curve with arrow from A to B.

Award up to 2 marks for associated explanation:

Reallocating resources will involve a movement along the PPC (1) this will involve an opportunity cost (1).

Analysing the above markscheme:

1. The curve should be drawn bowing outwards.
2. You need to draw 2 axes and label them appropriately as kerosene[y-axis] and LPG[x-axis] as indicated in the diagram above.
3. Mark 2 hypothetical points on the y-axis for kerosene . Here the highest of the two points on the y-axis ; K_1 , is the point which represents the production of kerosene before its reallocation to make more of LPG.
4. Use a downward arrow to show the movement is downward on the y-axis as resources are being reallocated from petrol to LPG.
5. The effect of such a re-allocation is that the output of LPG increases . Or in other words, the quantity of LPG increases from L_1 to L_2 , as shown in the figure above. Mark an arrow to the right on the x-axis.
5. Show dotted lines connecting the points K_1 and L_1 [which tell us that before reallocation, Kerosene production was greater than LPG production]. Also the dotted lines connecting K_2 and L_2 indicates that after reallocating the kerosene resources, more of LPG is being produced.
6. Reallocating the resources will involve the movement of production points along the PPC. There is an opportunity cost involved [the quantity of kerosene that is produced less is the opportunity cost($K_1 - K_2$)]

Note: Developments could move the PPC curve to the right:

1. Addition of new resources, for example , addition of more labour
2. Providing on-the job training to labour to help them use the resources more efficiently
3. Using more advanced equipments/techniques