## 28.1 Introduction to Production Possibility Frontiers (PPF)

1. A production possibility frontier (PPF) shows all the maximum attainable combinations of two goods that an economy can produce with given resources and technology.

2. With all its resources, Country A can produce 8 units of good X or 6 units of good Y. The marginal cost of producing an additional unit of good X or good Y is constant.

(a) Draw the production possibility frontier of Country A ($PPF_1$).

(b) Country A will not produce at point A because there would be idle resources in Country A / Country A would not be maximising its production.

(c) Suppose Country A discovers new production technology that raises the production of good Y by 50%.

(i) Draw the new production possibility frontier of Country A ($PPF_2$).

(ii) The marginal cost of producing good X *(increases / decreases / remains unchanged)*.

3. If a country's PPF is concave to the origin, this means that the country's marginal cost of production increases with output.


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## 28.2 Illustrating Gains from Trade Using PPF

4. The diagram below shows the production possibility frontiers (PPF) of Country A and Country B.

(a) Explain why the production possibility frontiers of Country A and Country B are straight lines.

The marginal cost of producing the two goods is constant.

(b) Explain which country has an absolute advantage in producing good X.

Uncertain. There is no information about the amount of resources owned by the two countries.

(c) Explain which country has a comparative advantage in producing good X.

In Country A, the opportunity cost of producing 1 unit of good X = 1 (= 20/20) units of good Y

In Country B, the opportunity cost of producing 1 unit of good X = 1.67 (= 50/30) units of good Y

As Country A has a lower opportunity cost in producing good X, Country A has a comparative advantage in producing good X.

(d) Suppose both countries engage in complete specialisation according to their comparative advantages, and the terms of trade is 1 unit of good X = 1.5 units of good Y. Indicate in the diagram:

(i) the production point of Country A ($P_A$) after specialisation

(ii) the consumption possibility curve of Country A ($CPF_A$) after trade


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5. The diagram below shows the production possibility frontier of Country A ($PPF_A$). Point C is its consumption point before trade.

(a) As Country A's opportunity cost of producing good X is *(higher / lower)* than the international price, Country A *(has / does not have)* a comparative advantage in producing good X.

(b) Suppose Country A consumes the same amount of good X after trade as before. Indicate in the above diagram:

(i) the production point of Country A ($P_T$) after trade

(ii) the consumption point of Country A ($C_T$) after trade

(iii) the import volume and the export volume of Country A

(c) Country X *(will / will not)* gain from trade, because it can consume beyond its PPF.

## 28.3 Comparative Advantage and Its Relation to Globalisation

6. Globalisation is the process that economies of different countries around the world become more integrated and interdependent as a result of increasing cross-border economic activities.

7. State **TWO** advantages that may be brought by globalisation.

A larger scale of production enables firms to enjoy economies of scale. / More job opportunities are available in low-cost or developing countries. / The economic growth of developing countries is enhanced. / Consumers can enjoy cheaper goods. / There are more investment opportunities. / The human capital of less developed countries can be increased. (or any reasonable answers) (any TWO)

8. State **TWO** disadvantages that may be brought by globalisation.

Unskilled workers in developed countries may face unemployment. / Workers in developing economies are exploited. / There may be serious pollution in developing countries. / There is a loss of independence. (or any reasonable answers) (any TWO)


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