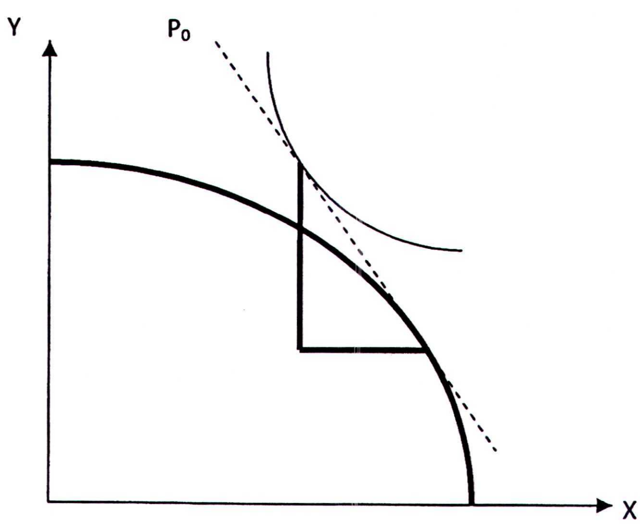
INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR
Mid-Spring Semester 2016-17

Date of Examination: 21.02.2017 **Session (FN/AN):** AN **Duration** 2 hrs
Subject No.: HS40078 **Subject Name:** International Trade
Full Marks: 30
Instruction: All questions are compulsory.

1. Suppose that the world economy is composed of two countries A and B. The diagram below shows the free-trade equilibrium in country A.

Consider a technological improvement that causes country A to be able to produce exactly 10% more output of good X than it could before, for any given input of resources.



Country A

a) Determine what this will do to the two countries' PPF, to their offer curves, and therefore to the world equilibrium prices.

b) Without further assumptions about preferences, are there any of these variables the direction of change in which *cannot* be determined unambiguously? Hint. Consider alternate cases with Y being normal and inferior.

c) If you assume that preferences are homothetic, can any of these ambiguities be resolved?

6+3+2

P.T.O.

2. a) Using the following data on the factor endowments of two countries, *A* and *B,* answer which country is relatively capital abundant and which one relatively labor abundant? Further assume good *S* to be capital intensive relative to good *T*. Then which country will have comparative advantage in the production of *S*? Explain.

Factor Endowments	Country A	Country B
Labor force (in millions of workers)	45	20
Capital stock (in thousands of machines)	15	10

b) "If international equilibrium occurs at the backward bending part of offer curves of two countries, then such equilibrium is unstable". Comment on the validity of the statement giving appropriate argument in favour of your answer. Prove or disprove if necessary. 5+5

3. In a standard $2 \times 2 \times 2$ general equilibrium trade model derive the relative supply curve both algebraically and graphically assuming possibility of substation between the factors of production. What can you infer about the shape of the corresponding PPF from the supply curve? 10