

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

CLASS: IMSC
BRANCH: QEDS

SEMESTER : V
SESSION : MO/2025

SUBJECT: ED301 INTERNATIONAL TRADE

TIME: 3 HOURS

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- | | [Marks] | CO | BL |
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| <p>Q.1 In a two-country world, Japan is relatively more efficient in the production of cars, while Brazil has a production advantage in coffee. However, suppose Japan also has a strong domestic preference for coffee consumption due to rising demand among its working population. Using concepts of comparative advantage, production bias, and consumption (taste) bias, analyze whether Japan will necessarily export cars and import coffee in equilibrium.</p> | [10] | 1 | 1
2 |
| <p>Q.2 a. If offer curves of both the countries are backward bending at the international equilibrium, will such equilibrium be stable? (Argue with necessary condition and illustrate in terms of offer curves.)</p> <p>b. Suppose the marginal cost of producing lipsticks (x) is 40 per unit, there is no fixed cost, the domestic demand is $p_d = 60 - x$, and the world price is 30 per unit. If lipsticks in the domestic economy are produced by a perfectly competitive industry, should it be imported or exported? Use a diagram to calculate the gains from imports/exports. Would your answer change if it was produced by a monopoly?</p> | [4+6] | 2 | 3
5 |
| <p>Q.3 a. Why cannot a country gain from trade with a smaller trading partner?</p> <p>b. Two goods – Coffee (good 1) and Textiles (good 2) – are produced by competitive firms in the two countries, Home (H) and Foreign (F), using only labour under fixed-coefficient technologies such that</p> $L_H = a_{L1}X_1^H + 5X_2^H; L_F = 2X_1^F + X_2^F$ <p>where X_1 and X_2 are outputs of coffee and textiles respectively.</p> <p>(i) Will there be any trade between H and F? (Hint: draw the PPFs) (ii) Now suppose Home (H) has a taste bias in coffee and Foreign (F) has a taste bias in textiles. Which country will export which good?</p> <p>(ii) Suppose $a_{L1} = 20$, $L_H = L_F = 100$. When trade opens, the world relative price of coffee to textiles settles at 3. How much of each good will be produced in H and in F under free trade? Illustrate how both countries gain from trade compared to autarchy.</p> | [4+6] | 3 | 3
4
5 |
| <p>Q.4 Consider the following full-employment conditions in the United States and Bangladesh, which produce two goods – textiles (T) and chemicals (C):</p> $L_j = 4X_T + 3X_C, K_j = X_T + 5X_C, j = \text{USA, Bangladesh.}$ <p>Suppose:</p> $L_{USA} = 1200, L_{Bangladesh} = 900, K_{USA} = 1000, K_{Bangladesh} = 450.$ <p>Consumers in both countries have identical tastes and consume the two goods in a fixed ratio: $\frac{D_C}{D_T} = \frac{2}{3}$.</p> | [3+3+4] | 4 | 4
5 |

- (a) Do you think both labour and capital will be fully employed in the pre-trade situation?
- (b) What are the pre-trade price ratios (P_T/P_C) in the two countries?
- (c) When trade opens between the USA and Bangladesh, what will be the pattern of trade? Is this pattern consistent with the relative factor abundance of the two countries?

- Q.5(a) If Mr. Trump assigns you the job to decide whether to raise tariff rates on US importables, what welfare maximising implications of the tariff raise will make you decide the optimum tariff rate? [5] 5 4
- Q.5(b) Consider the following import demand function of a small home country: $M = 120 - p_a$. The world relative price of this import good is 60. If the home country government imposes an import quota of 50 units, is it binding? What will be the domestic relative price of imports under this quota level? Calculate the scarcity rent generated by this quota. [5] 5 4

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