Part I

(1.) **FALSE**: In the Ricardian model with two goods, either the relative prices of the goods stays the same or one of the relative prices will go up (and the other will go down). If relative prices stay the same, then wages stay the same. If the relative price of one of the goods rises, everyone will switch into production of that good and wages will go up. Therefore, everyone at least doesn’t lose from trade (and most likely gains) in the Ricardian model.

(2.) **FALSE**: The factor price equalization theorem assume that technology is the same across countries. Without that assumption, there would be no reason for factor prices to equalize (as in the Ricardian model).

(3.) **TRUE**: When a country opens up to trade in the specific factor model, the price of the exportable will rise and the price of the importable will lower. If labor is mobile, real wages will decline in the exportable sector (price decline) and rise in the importable sector (price rise). The net effect is ambiguous without knowing whether consumers demand more of the importable good (possible gains from trade) or the exportable good (possible losses from trade).

(4.) **TRUE**: When relative prices change, producers can make more money by switching into the good which is becoming more expensive. Therefore, producers will change their production. Since markets are always efficient in the standard trade model, both the new and old price will wo; be along the production possibility fronteir.

(5.) **TRUE**: This is true; according to the Hecksher-Ohlin framework (in particular the Stolper-Samuelson theorem), if trade has been responsible for inequality in the US, we would expect that it would be due to a high price of ‘low-skill’ intensive goods in the US (due to a relative of abundance of ‘skilled labor’). Therefore, Mexico should have the opposite (a relative abundance of ‘low-skilled’ labor and a corresponding low price of ‘low-skilled’ labor intensive goods). Upon opening to further trade, the price of ‘low-skilled’ labor intensive goods should rise in Mexico putting upward pressure on the relative wages of ‘low-skilled’ labor, thus reducing inequality. However, Mexico has experienced greater inequality. Of course, globalization causing increasing inequality in Mexico is incompatible with the Hecksher-Ohlin framework. There are, however, other possible models of trade (with different assumptions than those of the Hecksher-Ohlin framework) which we have not discussed in which an increase in globalization could potentially increase wage inequality both in Mexico and in the United States.
(6.) **FALSE:** According to the Stolper-Samuelson theorem, France should have a relatively (compared with China) low pre-trade price for skill-intensive goods. Therefore, when France opens up to trade with China, the relative price of skill-intensive goods should rise pushing up wages of skilled workers and increasing inequality. Similarly, China should have a relatively (compared to France) low pre-trade price for low-skill-intensive goods. Therefore, when China opens up to trade with France, the relative price of low-skill-intensive goods should rise pushing up wages of low-skilled workers and decreasing inequality. Note that the Hecksher-Ohlin framework (the factor price equalization theorem) does not say that the wages of low-skill and high-skill workers should be the same because we are assuming that skilled and unskilled labor are two different types of labor. This means that skilled labor can not become unskilled labor and vice versa.

(7.) **TRUE:** Patterns of trade (who exports what) are determined by comparative advantage; however, wages are determined by how productive a country is in the sectors in which it is producing after trade. In other words, a country’s wages are determined by its technology or absolute advantage. A last way of stating this point is that in order to figure out what a country will export and import, all I need to know is how the ratios of the country’s unit labor requirements across sectors compares with that of other countries. However, in order to figure out the real wages of a country, I need to know more than the ratios of the country’s unit labor requirements. I need to know how productive the country is in the good(s) it is producing (what the unit labor requirements actually are).

(8.) **FALSE:** The terms of trade is the price of exports divided by the price of imports. Therefore, when the price of imports increases, the terms of trade goes down. (this makes a country worse off since the price of its consumption goes up and the price of its production does not).

(9.) **TRUE:** This question asks whether or not production of garments will rise in China after China enters the WTO. It does not ask whether or not China will export garments. Since China is labor-abundant, the price of garments (which is a labor-intensive sector) will be low in China relative to the price of telecommunications. Therefore, when China joins the WTO, the price of garments will rise and therefore, China will increase its production of garments.

(10.) **FALSE:** Since the US is skill-abundant, the pre-trade price of skill-abundant goods/services (telecommunications) is relative low. Therefore, when the US opens up to trade, the relative price of telecommunications will rise. Because telecommunications is skill-intensive, this will result in a relative increase in the demand for skilled labor. This will cause the relative wage of skilled labor to go up. However, different from what is stated in (10.), this relative rise in the price of skilled labor will cause each sector (including the telecommunications sector) to substitute skilled labor with unskilled labor. In
other words, the ratio of skilled to unskilled labor will drop not rise in the telecommunications sector.

Part II:

(a) What is the relative price of rugs to cameras in Malaysia if there is no trade? (5 points)

\[ \frac{a_r}{a_c} = \frac{10}{15} = \frac{2}{3} \text{ or } .67 \]

(b) Suppose that Malaysia and Indonesia are completely specialized when they trade. Which product will Malaysia produce? (5 points)

Rugs

(c) Draw the production possibility frontier for Malaysia. If Malaysia only produces the good in which it has a comparative advantage, where will its production point be on the production possibility frontier? If the post-trade world price will be at 1, can you show that there are gains from trade? (5 points)

Trade expands consumption options for Malaysia; they may now consume up to 30 cameras at a post-trade world price of 1.

(d) Does Indonesia benefit from trade when the world price for rugs to cameras is 1? Explain. (1 point)

No, since Indonesia’s autarky price for rugs to cameras is 1 which is the same as the world price, Indonesia will not benefit from trade as their consumption options remain the same.
(e) Draw a world supply schedule which shows rug production relative to cameras. Label all axes, curves, intercepts, and kink points. (5 points)

(f) Add a relative demand schedule to your diagram that implies that Malaysia is incompletely specialized. (4 points)

III.A

The graph below shows the effect of a decrease in the price of corn, $P_c$, while holding the price of garment, $P_g$, constant.

The effect is to shift the labor demand curve in the corn industry down. The wage rate and $L_c$ decrease and $L_g$ increases.
III.B

With higher \( L_g \), MPK in the garment sector goes up. Thus, \( r/P_g \) goes up. Since \( r \) goes up and \( P_c \) goes down, \( r/P_c \) goes up. Thus, the real return to capital goes up unambiguously.

With lower \( L_c \), MPT in the corn sector goes down. Thus, \( t/P_c \) goes down. Since \( t \) goes down and \( P_g \) is held constant, \( t/P_g \) goes down. Thus, the real return to land goes down unambiguously.

III.C

Notice from the graph in III.A that \( w \) decreases by less than the decrease in \( P_c \). Thus, \( w/P_c \) goes up. Since \( w \) goes down and \( P_g \) is held constant, \( w/P_g \) goes down. Thus the effect on the real return to labor is ambiguous. Workers gain in terms of corn, but loose in terms of garment. If corn accounts for a bigger share of workers’ consumption, workers can gain from trade.

IV

This depicts the starting production and consumption situation. The slope of the straight line is \(-P_{aog}/P_s\). The US is a net importer of steel, importing \( C_s - Q_s \) units of steel. It is also a net exporter of AOG, exporting \( Q_{aog} - C_{aog} \) units of AOG.

The effect of the tariff is to increase the price of steel. This makes the straight line flatter. Both production and consumption points change. The production of steel rises while the consumption of steel falls. Thus, net imports of steel fall. There is an associated fall in welfare due to the price increase. One reason the Bush administration plan to impose this tariff, despite the fall in welfare, is to favor the factor used intensively in the steel industry (Stolper-Samuelson).