Instructions: Only one section will be graded for correctness. The rest will graded on completion. You will get 50% for completing the homework assignment with an honest effort and 50% for the graded problem. You may work with one other student. If you do, please only turn in one copy with both of your names on it.

1: Multiple Choice

Instructions: Choose the most correct answer for each question.

(1) The most unsettling conclusion of the Solow model is the conclusion that once the economy reaches its long-run potential level of income, economic growth simply:

A. declines, leading to what is referred to as a ”failed state.”
B. matches population growth, with no chance for sustained increases in average income.
C. causes a rapid inflation, leading to an erosion of gains made during the growth period.
D. subsides, as socialism becomes an acceptable form of political economy for the people.

(2) Which of the following statements is true about new growth theories and the Solow and Harrod-Domar models?

A. Both underline the importance of factor accumulation and productivity in the growth process.
B. Both treat technology as endogenous.
C. Both take externalities into account.
D. Both assume increasing returns to scale.

(3) After David Ricardo and Karl Marx, economists shifted to trying to understand how markets worked, and economic growth was:

A. taken to a higher level of research,
B. taken for granted.
C. suppressed as an area of research, as a reaction to the writings of Marx and Engels.
D. assumed to have already been achieved by all nations in the world of that day.

(4) During the 1950s, all of the following countries were inspired by the Soviet model of development EXCEPT for:

A. China
B. India
C. Ghana
D. Burma

(5) The international organization responsible for helping developing countries design and finance structural adjustment programs with the aim of becoming more market-based is the:

A. World Bank
B. Organization of Petroleum Exporting Countries.
C. United Nations
D. International Monetary Fund.

(6) Structural adjustment programs are designed to:

A. promote the growth of industry rather than agriculture.
B. assure that scarce foreign exchange is rationed in accordance with a five year plan.
C. dismantle controls that interfere with market allocation and efficiency.
D. stop inflation.

(7) The single most important variable explaining the number of people in poverty in a given country is:

A. the literacy rate.
B. the HDI
C. per capita income.
D. population.

(8) A small subsidy to the poorest of the poor will leave which of the following unchanged?

A. headcount index
B. poverty gap
C. income distribution
D. none of the above

2: Chapter 4

Using the Solow (Neoclassical) Growth Model, answer the following questions.

(a) Let $Y = L^{\frac{1}{2}}K^{\frac{1}{2}}$. Graph this to show it has diminishing returns (either use derivatives or plot a few points).

(b) Let the savings rate be equal to 20%. Also, the population growth rate, n, is equal to 0.5. Finally, $d = 0.1$. Initially, there are one hundred people in this economy and 100 units of capital. Find the income per worker. Also, in a year, will the economy gain or lose capital? Explain.

(c) When there is capital widening in this economy, what will the equilibrium level of capital per worker be?

(d) Graph both points from part b and part c using the main graph for the Solow Growth Model.

(e) On another graph, show the case of depreciation increasing to 0.20.

3: Chapter 5

Developing Land, a developing country, has a market for electricity. The market is dominated by a monopoly selling to a market defined by the inverse demand function, $P = 50 - 2Q$. The monopoly has a fixed cost equal to 5 and a marginal cost equal to 10.

(a) Is this industry a strong candidate for protectionism/import substitution? Why or why not?

(b) What is the equilibrium price and quantity in this market? What is the profit level of the monopoly?

(c) Show that two symmetric firms, both setting quantities with the same cost structure as reported for the monopoly, is a more efficient market than the monopoly.

(d) Now, assume that cost structure for any firm in the market is defined as: $cost = q^2 + 150$ Redo parts b and c with this cost structure.

(e) Given your answer to part d, is two firms more efficient than one firm? As the government of Developing Land, what may you recommend in order to promote growth and development?