Directions: Please provide responses that are **clear, concise,** yet **comprehensive!** Relevant derivations, diagrams or graphical analyses **are mandatory** <u>whenever</u> appropriate. Label each part (100 total points).

1. (i) What do each of W, P, and W/P represent in macrotheory? Be very explicit. *(6 points)*

(ii) The CPI was 184 in 2003 and 189.4 in July 2004. Calculate the rate of inflation from 2003 to this past July. *(6 points)*

(iii) If Nominal GDP in 2003 was $11004 billion and Nominal GDP in 2004 becomes $11643 billion, use the CPIs in (ii) to calculate the %-change in Real GDP between these two years. *(6 points)*

2. (i) What <u>specific</u> economic experience led to the conclusion that the classical supply and demand model was insufficient in describing the macroeconomy? Why? (Your answer must address a specific market.) *(6 points)*

(ii) List the five sectors of the macroeconomy. Illustrate how they are linked. *(6 points)*

(iii) Assume that the federal government is running a budget surplus. What is the impact on private investment? Explain why, using the concepts of leakages and injections. *(10 points)*

3. (i) List all the factors of production. *(6 points)*

(ii) Calculate the unemployment rate if there are currently 150 million people working, 10 million people who would work but have been discouraged from looking further, 25 million not interested in working, 4 million under the age of 16 who are searching for summer jobs, and 12 million adults not working but actively seeking employment. *(6 points)*

(iii) Ceteris Paribus, how is the unemployment rate affected when an individual who was seeking a job becomes a "discouraged worker"? Explain. *(6 points)*

4. (i) List the three main tools the Fed has at its disposal to increase the money supply. *(6 points)*

(ii) Assume that Alan Greenspan is concerned about inflation. As a result, he wishes to increase both the discount rate and the federal funds rate. How is this accomplished? Explain. *(10 points)*

5.   (i) Assume that production for the island economy of Wanagothar is given by $F(\bar{K}, N) = 10N^{1/2}$.   Sketch both the production and marginal product functions on separate axes. *(10 points)*

(ii) Prove an alternative profit maximizing condition (besides MC=P) for a profit maximizing competitive firm. *(10 points)*

(iii) Describe labor demand in terms of (a) the nominal wage and (b) the real wage.
(6 points)