Summary Questions:

1. What factor's impact demand for labor?   Give specific examples of how changes in each factor will impact the labor demand curve.

   Labor demand is a derived demand, so factors that influence demand for a product will also influence the producing firm's demand for labor. So, with less demand for a product, there is less reason for a firm to demand much labor, and vice versa. If the demand for computers went down, for instance, a computer factory wouldn't need to employ as many laborers to meet demand, and so demand for laborers would decrease.

   The price of labor also affects its demand, as one would expect it to; the cheaper labor is (that is, the lower wages a firm must pay for a certain amount of labor) the more labor that firm will demand. Another factor, relatedly, that may influence demand for labor is wage determination, and the various things that affect that. Because wage is the price of labor, and demand changes with the price of labor, then a change in wage causes a change in demand for labor.The factors that influence wage determination include productivity, human capital, compensating wage differentials, discrimination, and unions.

   Productivity is self-explanatory, as the more productive each unit of labor is, the great price (wage) a firm is willing to pay. Increasing productivity for workers shifts the demand curve right, reflecting higher wages and higher demand as MRP increases. For example, if a new technological breakthrough allows each worker to produce an additional 10 units of output, that will be reflected by increasing MRP by that amount and shifting the demand curve to the right. Human capital refers to all the knowledge, skills, and experience of a laborer. This can be seen in the real world in how degrees and worker experience command higher wages. A teacher with several degrees, for instance, will be in more demand and command a higher wage than a teacher with only one four-year degree. Compensating wage differentials reflect additional stresses or difficulties that come with slightly different jobs. Underwater welders, for example, command higher pay because of the danger of their job compared to normal welders. The other factors in wage determination can also influence price, and therefore demand for labor, in similar ways.

   Marginal Revenue Product also affects demand for labor, and this is what causes the demand curve of labor to be downward sloping, as the law of diminishing returns means that MRP decreases over time. This is because MRP and labor demand are negatively related. So, let's say that MRP peaks at $740 at 2 units of labor, then decreases to $400 for the 3rd, $120 for the 4th, and so on; labor demand in imperfect competition would be greatest where the wages commanded are least, which is to say that as MRP decreases, demand for labor here will increase.

2. Why is demand for labor downward sloping?

   The demand curve is downward sloping because of the law of diminishing returns. As long as that holds true, the curve will slope downwards, because with each additional worker that is hired, marginal product of labor decreases. Correspondingly, the marginal revenue product of labor falls. As such, over a number of workers, demand for labor will slope downwards. Where

3. Research how the substitution and income effects impact labor supply.   Discuss your findings by explaining how each effect impacts labor supply.

   The substitution effect is the decrease in sales for a product when consumers switch to cheaper alternatives. The income effect is the change in demand caused by a change on consumers' real income. If the substitution effect is stronger than the income effect, then the labor supply curve will slope upward. When the income effect becomes stronger than the substitution effect, correspondingly, the labor supply curve will actually begin to slope, or bend, backwards.

   Why do they work in opposite directions?

   This is because the income effect causes laborers to obtain additional income and to increase consumption of leisure, and so the quantity of labor supplied decreases. The substitution effect works opposite, where leisure becomes more costly because an increased wage increases the opportunity cost of leisure. So, the substitution effect causes labor quantity to increase. Whichever effect dominates as wage increases determines the slope of the curve.

4. Using the text or a reliable internet source, read about the following pieces of legislation that have impacted unions in the 20th century.   Briefly describe the contents of each law and how it affected unions in the United States.
   A) Sherman Anti-trust Act – **Created primarily to give federal government power to break up entities prohibiting competition. It attempts to prevent monopolies from artificially raising prices or restricting trade. It was used against unions on grounds that unions were essentially trusts that inhibited competition of businesses and the normal functioning of the labor market.**
   B) Clayton Anti-trust Act – **This act defined unethical business practices and was intended to uphold certain labor rights. This legislation prohibited anti-competitive mergers, predatory pricing, and generally unethical behavior by corporations. Further, it allowed lawsuits against companies. It defined labor as not an economic commodity, emphasizing in the sixth section the rights of organized labor unions to exist.**
   C) National Labor Relations Act – **Passed in 1935 to encourage collective bargaining, curtail practices harmful to the welfare of U.S. economy, and to protect the rights of employees and employers. This act guaranteed private sector employees the irght to organize into trade unions and to engage in collective bargaining and collective action. Sought to equalize bargaining power between laborers and employers.**

D) Fair Labor Standards Act – **This act established the minimum wage, overtime pay eligibility, recordkeeping, and child labor standards. This affects laborers by setting a price floor for wages, and it also provides for overtime payment of laborers who work longer than standard hours.**

5. Assume a firm is currently employing labor and capital in such a way that the cost minimizing equality is: $\frac{100}{\$10} = \frac{200}{\$20}$ with the left side of the equality representing the MP_L/P_L and the right side representing the MP_K/P_K. Suppose the marginal productivity of capital increases by 20 units. How should the firm change its consumption of labor and capital to restore the cost minimizing equality? **If the marginal productivity of capital increases by 20 units, then the equation changes to $\frac{100}{\$10} \neq \frac{220}{\$20}$. Now the firm is achieving 10 units of output for the last unit of labor and 11 for the last unit of capital. This means that for the firm to once again achieve cost minimization, then it should increase consumption of capital and lessen consumption of labor, for as the consumption of capital is increased by 1 unit, the marginal productivity will decrease. This will decrease the right side of the equality as each additional unit of capital lessens marginal productivity, and increase the left side of the equality as every lesser unit of labor increases marginal productivity. Eventually, these changes will cause the firm to arrive at a point where it is purchasing units of labor and capital in a way so that the last dollar spent on both results in the same marginal product.**