

**University of Ottawa
Department of Economics**

ECO2114A

First mid-term examination

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You may not consult with any written documents whatsoever, and no conversation is permitted while the examination is in progress. It is forbidden to look at other students' papers. There are 25 multiple choice questions and 25 points worth of short answer questions. For the multiple choice questions, it may not necessarily be the case that four of the responses are totally wrong, and one of them is unambiguously correct. In such situations, select the best answer. Respond to the multiple choice questions on the scantron sheet. Please grid in your name and your student number by filling in the appropriate ovals in each column. You must grid in the ovals below each digit of your student number, and below each letter of your name. Respond to the written questions in the examination booklet.

Part A: Multiple choice questions

1. Consider the latest figures that were released with the Labour Force Survey for September of 2009.

Employment: 16.8 million
Working age population: 27.4 million
Unemployment: 1.6 million
Labour Force: 18.4 million

Which of the following expressions gives the official unemployment rate?

- a) [$1.6 / (1.6 + 16.8)$]
- b) [$1.6 / (1.6 + 18.4)$]
- c) [$1.6 / 27.4$]
- d) [$1.6 / 16.8$]
- e) none of the above

A – this is a straightforward calculation of the formula for the unemployment rate

2. Consider the latest figures that were released with the Labour Force Survey for September of 2009. It was reported that unemployment fell by 55,200 workers with respect to August, but that only 30,600 new jobs were created over the same period. How can this apparent discrepancy be explained?

- a) the unemployment rate must have fallen
- b) the size of the working-age population must have risen
- c) the size of the labour force must have risen
- d) a number of jobless workers must have decided to no longer participate
- e) there must have been an error in the survey

D - There are 55,200 fewer people reported as unemployed, but only 30,600 more people reported as working. The remaining workers must have dropped out of the labour force.

3. The alternative perspectives of the labour market differ from the neo-classical paradigm in all of the following ways except: (pick out the falsehood)

- a) They reject the neo-classical tenet that economic agents make rational choices based on their own free will.
- b) Like the neo-classical paradigm, they tend to believe that market forces are the primary determinants of labour market outcomes, but that these outcomes are often unjust
- c) They all hold that the conventional, neo-classical labour market model should take account of the role of institutions, conventions, and social mores in shaping labour market outcomes.
- d) They all hold that analysis should usually be based on descriptive realism rather than mathematical tools and graphical analysis
- e) They tend to view labour market outcomes as the product of a struggle between organs or groups of economic actors rather than as a product of supply and demand forces.

D is the most correct answer, because the Marxian model is highly mathematical. B is not a bad answer, because it is not true that they believe that market forces are determining outcomes. A, C, and E are true statements. I spent a lot of class time going over this.

4. All of the following are aspects of the scientific approach to analyzing labour market phenomena except: (select the one that does not belong)

- a) theoretical models to serve as an analytical framework for situating the question
- b) empirical validation of propositions
- c) refutability of propositions
- d) dispassionate stances on the part of researchers
- e) anecdotes to support propositions

E – see your notes as well as the textbook. I said in class that the use of anecdotes to support your argument is OK to illustrate an idea (and everyone does it), but does not constitute scientific evidence.

5. The minimum wage law has been the subject of intense controversy since its creation in the early 20th century. The proponents claim that it raises the welfare of poorly-paid workers, while the opponents claim that it ‘kills jobs.’ Labour economists have conducted hundreds of research studies over the years aimed at evaluating its true impact. What have they tended to find?

- a) The minimum wage does reduce employment, all other factors held constant, but the effect is not very important.
- b) The minimum wage causes low-skilled workers to be laid off, and this effect is fairly important.
- c) The minimum wage has the effect of increasing employment, all other factors held constant, because aggregate consumption rises when the workers receive wage increases.
- d) The minimum wage has no effect on employment, all other factors held constant.
- e) There has not been a consensus since the findings are all over the map.

A – see your notes. I said in class that B has not been verified by the evidence. C represents a very left-wing view of the minimum wage that has also not been verified by the evidence. E is wrong – most of the studies have found that the MW has only a slight disemployment effect.

6. Based on aggregate official unemployment rates, how does Canada fare in relation to most other fully developed countries?

- a) rather well (lower than average unemployment rate)
- b) very well (much lower than average unemployment rate)
- c) so-so (average unemployment rate)
- d) rather poorly (higher than average unemployment rate)
- e) we cannot say, because these rates cannot be compared across countries

A – see your notes. I also said this in class a number of times

7. In the developed economies, in which countries do we tend to find the highest official unemployment rates?

- a) In the English-speaking countries such as the UK, Australia, and the USA
- b) In continental Europe
- c) In Japan
- d) In the Nordic countries (Scandinavia)
- e) There is no enduring ranking or pattern, as in some years one country will have higher rates, but in other years another country’s rates will surpass them

B see your notes. I also said this in class a number of times

8. Which of the following statements concerning the wage elasticity of labour supply is true?

- a) Empirical estimates tend to point to an inelastic wage elasticity of supply.
- b) It is generally higher for men than for women.
- c) The compensated elasticity (reflecting only the substitution effect) tends to be lower in magnitude than the overall, gross elasticity.
- d) It is defined as the change in the quantity supplied of labour divided by the change in the wage
- e) The elasticity of labour supply with respect to income and the compensated elasticity (reflecting the substitution effect) work in the same direction, and so they have the same sign.

A - see your notes. I also said this in class a number of times. D is wrong, as it is the % changes and not the changes that figure in the WES. The opposite of B, C, and E apply.

9. The reservation wage is defined as:

- a) The marginal rate of substitution when most hours are devoted to working
- b) The maximum wage that an employer is willing to pay a worker for a given job
- c) The minimum wage that an employee is willing to accept for working at a given job.
- d) The equilibrium wage
- e) The wage rate at which no hours of labour are supplied by the workers

C - see your notes. I also said this in class a number of times. This is a basic definition. E is not far wrong.

10. Which of the following statement concerning labour market trends in Canada is false?

- a) Low-skilled males have fared worse in the labour market than just about any other demographic group since the late 1970s.
- b) The unemployment rate for women is lower than it is for men.
- c) The labour force participation rate for men has been stable over much of the post second world war period.
- d) The labour force participation rate for women rose over much of the post second world war period.
- e) The degree of inequality in the distribution of wages has been rising over much of the period since the early 1980s.

C - see your notes. I also said this in class a number of times.

11. Complete the following sentence. Over the forward-bending (i.e. upward sloping)

portion of the labour supply curve,

- a) the substitution effect of a wage change dominates the income effect.
- b) leisure becomes an inferior good.
- c) the wage elasticity of labour supply turns from inelastic to elastic.
- d) there is no longer a trade-off between income and leisure.
- e) the wage elasticity of labour supply is negative.

A – B and D are always false. C is not relevant, as we are talking about the sign of the relationship between the wage and the quantity supplied of labour. The opposite of E is true.

12. What of the following phrases best describes a demogrant?

- a) A grant that is used as part of a demonstration project
- b) A welfare program that is aimed at targeted demographic groups
- c) A grant whose amount varies with the number of hours worked
- d) a lump-sum transfer whose amount does not vary with the number of hours worked
- e) None of the above

D – this is a basic definition C is the total opposite of a demogrant

13. Suppose that the government raises the amount of a demogrant that is paid to a certain group in the labour force. What impact would we expect to occur?

- a) There would be a substitution effect pushing toward more hours worked as well as an income effect pushing in the opposite direction.
- b) There would be neither an income effect nor a substitution effect.
- c) There would only be an income effect pushing toward fewer hours worked.
- d) There would only be a substitution effect pushing toward more hours worked
- e) They would withdraw from the labour force

C - there is no substitution effect, as there is no change in the hour-by-hour rate of return to working. E is not necessarily true, although some subjects might respond this way. For B, there will be an income effect if the worker receives a payment of any kind.

14. Which of the following statements is false?

- a) In periods of high unemployment, discouraged workers tend to withdraw from the labour force.
- b) In periods of low unemployment, we are not likely to witness the added-worker effect
- c) Discouraged workers contribute to the phenomenon of hidden unemployment.
- d) Both of these effects – the added worker effect as well as the discouraged worker effect – have opposing influences on the labour force participation rate.

e) None of the above, as they are all true

E - D is a true statement – when times are bad, discouraged workers leave the labour force, which will work to lower the LFPR. When times are bad, added workers enter the labour force, which will work to raise the LFPR.

15. In the neo-classical model of labour supply, which of the following is always true?

- a) A wage increase causes an increase in hours worked.
- b) If there is an income effect, it must stem from a change in the wage.
- c) The income effect and the substitution effect work in the same direction
- d) The substitution effect causes the worker to work more hours if wages increase
- e) A substitution effect can arise from a change in non-labour income.

D – A is not always true- think of the backward-bending supply curve. B is false, as an income effect will result from a change in income. C is wrong if the impetus is a change in the wage. E is totally false, as there is no substitution effect in the case.

16. For a worker who is deciding how many hours of labour to supply, all of the following are true except: (select the falsehood)

- a) The marginal rate of substitution between income and leisure is equal to the wage rate
- b) The rate at which she is willing to exchange leisure for income equals the rate at which the market allows her to do it
- c) The marginal utility of leisure divided by the marginal utility of income is equal to the wage rate
- d) He/she is maximizing his/her marginal utility of income and the marginal utility of leisure given the wage rate, the non-labour income level, and the time endowment.
- e) The worker cannot increase total utility by working more or fewer hours given the wage rate and the non-labour income.

D – It is the total utility, which is function of both variables, that is maximized. We never maximize marginal utility.

17. All of the following are ingredients for the worker's choice of hours except: (select the one that does not belong)

- a) the worker's wage elasticity of supply
- b) the worker's preferences for income versus leisure
- c) the worker's time endowment
- d) the wage that he/she faces
- e) his/her non labour-market income

A – I went over this in class very thoroughly. The wage elasticity of supply is a tool that measures the responsiveness of hours worked to wage changes. It is not an ingredient for the choice-making process.

18. Canada's unemployment insurance program has received much criticism from most (but not all) policy analysts. The view of the majority is that:

- a) the 'Employment Insurance' regime (EI) has evolved in some circumstances into a income maintenance program upon which some workers have developed a long-term dependency
- b) benefits are paid for too long a period, causing individuals to delay their job search
- c) it serves to insure workers from income loss associated with the risk of unpredictable unemployment
- d) it has an unfunded liability
- e) the premiums are judged to be too high

A – I went over this in class very thoroughly. B has been demonstrated to be true to some extent, but that is not specific to Canada's program. C is what the program is supposed to do.

19. Assuming that an individual is capable of performing some work, what is the nature of work disincentive effects associated with workers' compensation? Assume that if the worker does work some hours, his/earnings are subjected to some clawback.

- a) The income effect of the benefit tends to increase hours worked, and the substitution effect of the benefit also tends to increase hours worked.
- b) The income effect of the benefit tends to reduce hours worked, but the substitution effect of the benefit tends to increase hours worked.
- c) Both the income effect and the substitution effect of the benefit tend to decrease hours worked.
- d) Only the income effect of the benefit tends to reduce hours worked, while the substitution effect does not apply in this case.
- e) none of the above

C – The first clause of A is incorrect, as leisure is a normal good, and the second clause is not, because the clawback lowers the rate of return on working. The first clause of B is correct, as leisure is a normal good, but the second clause is not, because the clawback lowers the rate of return on working. The first clause of D is correct, as leisure is a normal good, and the second clause is not, because the clawback lowers the rate of return on working. This question was on last year's exam.

20. In regards to the impact of social insurance programs on labour supply behaviour, which of the following is true?

- a) The empirical literature has tended to find that disincentive effects are not very

important in practice.

- b) A reduction in the tax rate paid by workers for each hour worked can actually bring out higher revenues overall.
- c) The benefit amounts that are paid by social assistance programs are sometimes greater than the earnings that one could receive from working at the minimum wage.
- d) There is a critical difference between the case in which the payment is in the form of a demogrant or whether it affects the returns to working activity.
- e) clawbacks of benefits cause income effects

D – I made this point emphatically in class, when I said that this was a critical and recurring theme in microeconomics. B is somewhat true (if the WES is inelastic), but is far from the best answer. A, C, and E are false statements.

21. Consider the following equation: $Caseload_t = b_1 + b_2 * UR_t + b_3 * SAben_t + b_4 * demographics_t$

The dependent variable is the caseload for social assistance recipients in given year. UR stands for the unemployment rate, SAben stands for the benefit level, and the final variable indicates demographic factors (such as the number of women of child-bearing age) in that same year. What signs would we expect for these coefficients b_2 , b_3 , and b_4 if it is true that incentives do not matter?

- a) positive, nil, and positive
- b) positive, positive, and positive
- c) positive, negative, and positive
- d) negative, nil, and positive
- e) incentives and disincentives are not specified in this equation

A – see your notes. B_3 is zero if incentives do not matter. Almost everyone agrees that B_2 is positive, as the caseload balloons when times are bad.

22. Consider a worker who has small children at home. Assume that there are no subsidies. All of the following are effects of child care expenses on labour supply behaviour except: (select the anomaly)

- a) They serve to increase reservation wages
- b) They might decrease labour force participation
- c) For those who do participate, the hours of work are likely to be longer
- d) For those who do participate, the hours of work are likely to be shorter
- e) All of the above apply

D – This is due to an income effect. The child care expenses make the parent feel poorer, inducing him to work longer hours rather than shorter hours. A, B, and C are true.

Note: for the remaining three questions, the stimulating variable refers to a variable whose impact we are seeking to determine. The outcome variable refers to the variable that is thought to respond to changes in the stimulating variable.

23. What does the term *randomization* mean in the context of evaluative research concerning social insurance programs?

- a) That subjects are selected into the control group and into the treatment group according to chance and luck as opposed to a systematic pattern.
- b) That the researcher can control the fluctuations in the stimulating variable.
- c) That all other factors that could influence choices are held constant.
- d) That a major change in policy applies to the treatment group but not the control group
- e) That the researcher can observe and include all of the factors that could influence outcomes.

A – see your notes. B refers to the condition of exogeneity. C refers to the *ceteris paribus* condition. We need D to apply in order to investigate anything, but that is not what randomization means.

24. What does the term *exogeneity* (*root term: exogenous*) mean in the context of evaluating research concerning social insurance programs?

- a) That subjects are selected into the control group and into the treatment group according to a random process rather than a systematic process.
- b) That the researcher can control the fluctuations in the stimulating variable such that there are no other sources of variation in it
- c) That all other factors that could influence choices are held constant.
- d) That a major change in policy applies to the treatment group but not the control group
- e) That the researcher can observe and include all of the factors that could influence outcomes.

B – see your notes, as well as the answer to question # 23.

25. What does the term *chain of causality* mean in the context of economic research?

- a) That the treatment group resembles the control group in almost all respects
- b) That the researcher can control the fluctuations in the stimulating variable such that there are no other sources of variation in it
- c) That all other factors that could influence choices are held constant.
- d) That the empirical findings are refutable
- e) The sequence of events, with the change in the stimulating variable bringing about a change in the response variable

E – see your notes.

II Short Answer Questions

Answer all of the questions below in complete sentences. Point form is not acceptable.

1. In order to be classified as officially unemployed, one has to be *actively* seeking work. In class I emphasized the adverb 'actively'. What is the practical significance of that? (3 points)

I WENT OVER THIS IN CLASS. START WITH THE JOBLESS POPULATION. TO THE EXTENT THAT THEY ARE ACTIVELY SEEKING WORK, THEY WILL BE CLASSIFIED AS UNEMPLOYED, AND THUS THEY WILL FIGURE IN THE CALCULATION OF THE UNEMPLOYMENT RATE. TO THE EXTENT THAT THEY ARE DEEMED TO NOT BE ACTIVELY SEEKING WORK, THEY WILL BE CLASSIFIED AS NOT IN THE LABOUR FORCE. THEY WILL NOT FIGURE IN THE UNEMPLOYMENT RATE AT ALL. THE GOVERNMENT THIS HAS AN INCENTIVE TO CLASSIFY AS MANY OF THE JOBLESS AS POSSIBLE AS NOT ACTIVELY SEEKING WORK. IT THUS MATTERS FOR THE POLITICAL OPTICS.

2. Describe the event of working overtime hours in the context of the model of labour supply. Your explanation should make some mention of income effects and substitution effects. (4 points)

SEE YOUR NOTES. START WITH THE SITUATION OF THE WORKER WORKING THE NORMAL 8-HOUR WORK DAY. AT THIS POINT OF $h = 8$, $w = MRS$ (THE WAGE IS EQUAL TO THE MARGINAL RATE OF SUBSTITUTION BETWEEN LEISURE AND INCOME). AT THE GOING WAGE, HE/SHE WILL REFUSE AN HOUR OR TWO OF OVERTIME WORK, BECAUSE FOR THOSE MARGINAL HOURS, $MRS > w$. THE WORKER DECIDES SHE VALUES THE EXTRA HOUR OF LEISURE MORE THAN THE OFFERED WAGES THAT SHE WOULD RECEIVE BY GIVING UP THAT LEISURE. THE ONLY WAY THAT THE BOSS CAN INTEREST HER IN WORKING OVERTIME IS TO RAISE THE WAGE OFFERED FOR THOSE OVERTIME HOURS. WHEN THIS OCCURS, EVENTUALLY $MRS = w$, AND THE OVERTIME HOURS WILL BE WORKED. IT IS THE SUBSTITUTION EFFECT THAT MATTERS HERE.

3. Consider the point of no work for an individual – i.e. where $h = 0$. Assume that he/she is able to work, and that jobs are available – although perhaps at a low wage.

a) What if at this base point, the wage is greater than the marginal rate of substitution between income and leisure? What would we expect the worker to do?

WE WOULD EXPECT FOR A POSITIVE NUMBER OF HOURS TO BE WORKED. AT THE MARGIN, SHE VALUES THE HOURLY WAGE MORE THAN THE LEISURE.

b) Continuing from part a), what if the level of non-labour income were to increase – perhaps from receiving an inheritance? What behavioural response would we expect?

SHE WOULD WORK FEWER HOURS DUE TO THE INCOME EFFECT, AS LEISURE IS A NORMAL GOOD. SHE MAY OR MAY NOT DROP OUT OF THE LABOUR FORCE.

c) What if at this point, the wage is less than the marginal rate of substitution between income and leisure? What would we expect the worker to do?

WE WOULD EXPECT FOR ZERO HOURS TO BE WORKED. AT THE MARGIN, SHE VALUES THE HOURLY WAGE LESS THAN THE LEISURE.

d) Continuing from part c), what if the wage offered were to increase? What behavioural response would we expect?

IF THE WAGE WERE RAISED ENOUGH SO THAT $W = MRS$, SHE WILL WORK A POSITIVE NUMBER OF HOURS.

e) Continuing from part c), what if the level of non-labour income were to increase – perhaps from a working partner? What behavioural response would we expect? (5 points)

SHE IS ALREADY NOT IN THE LABOUR FORCE. SHE WOULD WORK FEWER HOURS DUE TO THE INCOME EFFECT, AS LEISURE IS A NORMAL GOOD. THERE WILL THUS BE NO CHANGE.

4. Consider the situation of a worker who IS participating in the labour market, and is thus at his/her intensive margin. The number of hours worked is positive. Suppose that at the current number of hours that are being worked, the marginal rate of substitution of leisure for income is less than the going market wage. This is a disequilibrium situation. Explain step by step how this worker will reach his/her labour supply choice, which will be an interior solution. I strongly hinted to you that this question might appear on the examination, and here it is. (4 points)

START AT THE POINT WHERE $MRS < W$. THIS IMPLIES THAT AT THE MARGIN, THE WORKER VALUES THE EXTRA HOURS OF LEISURE LESS THAN HE VALUES THE WAGE THAT HE WOULD RECEIVE BY WORKING IT. HE IS GOING TO WORK LONGER HOURS. AS HE DOES SO, THE MARGINAL UTILITY OF LEISURE WILL RISE BECAUSE HE IS TAKING UP LESS LEISURE (IT BECOMES MORE DEAR). AT THE SAME TIME, THE MARGINAL UTILITY OF INCOME WILL FALL, AS HE IS RECEIVING MORE AND MORE INCOME (THE LAW OF DIMINISHING MARGINAL UTILITY). SINCE THE $MRS = MU_{leisure} / MU_{income}$, THAT RATIO WILL RISE, AND EVENTUALLY EQUILIBRIUM IS ATTAINED WHERE $MRS = W$.

5. Social assistance and anti-poverty policies are hot potatoes that incite emotional, controversial, and ideological positions among the various camps. Outline briefly the policy debate by summarizing the positions of the 'social activists' on one hand and the 'moderate reformers' on the other hand. I do not refer to those in the extreme right-wing camp who favour the abolition of social assistance, but rather to those who hold the common neo-classical view. About five sentences will suffice. (4 points)

THE LEFT WING GROUP CLAIMS THAT THERE ARE VIRTUALLY NO DISINCENTIVES INVOLVED WITH THESE PROGRAMS. THEY CLAIM THAT NO ONE WOULD EVER CHOOSE SOCIAL ASSISTANCE OVER WORK UNLESS THEY REALLY HAD TO. THEY CLAIM THAT THE RECIPIENTS ARE VERY CONSTRAINED ON THE LABOUR MARKET, AND ARE USUALLY UNABLE TO WORK. THEY ALSO CLAIM THAT EVEN IF THERE ARE DISINCENTIVES INVOLVED WITH THE PROGRAM, AS A SOCIETY WE SHOULD NOT PAY ANY ATTENTION TO THEM. THE REAL ISSUE IS THE POVERTY THAT THEY FACE, WHICH IS TIED TO THE FACT THAT THEY GET SUCH A RAW DEAL FROM THE LABOUR MARKET – I.E. VERY LOW-PAYING, BAD JOBS. THE OTHER CAMP TENDS TO ARGUE THAT THE DISINCENTIVE EFFECTS ARE QUITE STRONG FOR ABLE-BODIED RECIPIENTS. THE PROGRAM SHOULD BE REDESIGNED SO THAT RECIPIENTS HAVE SOME INCENTIVE TO WORK AT LEAST PART TIME (AND KEEP SOME OF THEIR BENEFITS). ONE OF THEIR CLICHÉS IS “SOCIAL ASSISTANCE SHOULD BE A HAND-UP, NOT A HAND-OUT”

6. I spent some time going over the topic of a paradigm. Identify a paradigm and explain its significance. This means to indicate the reasons why I bothered to talk about it at all. In your response you might want to write about one of the illustrations that I gave. One concerned the question of whether or not postal workers were 'over-paid', and the other concerned the question of whether the union representing the striking sanitation workers has too much power. (5 points)

A PARADIGM IS A CONCEPTUAL FRAMEWORK, PERSPECTIVE, AND/OR APPROACH FOR ANALYZING LABOUR MARKET PHENOMENON. IT IS BASICALLY A SUPERSTRUCTURE FOR A WAY OF THINKING, AND IT DETERMINES THE STARTING POINT FOR YOUR ANALYSIS. THE IMPORTANT POINT IS THAT IT IS SHAPED BY UNDERLYING IDEOLOGY, PHILOSOPHY, AND VALUES, AND THESE ITEMS ARE INHERENTLY SUBJECTIVE. THE CONCLUSIONS THAT ONE DRAWS WILL BE AFFECTED BY THE CHOICE OF PARADIGM. FURTHERMORE, PEOPLE HAVE A TENDENCY TO REACH FIRM CONCLUSIONS REGARDING ECONOMIC ISSUES AND QUESTIONS WITHOUT REALIZING THAT THEY HAVE MADE ASSUMPTIONS.