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Student Number: _____

ECO1104G, Introduction to Microeconomics
Professor G. Lenjosek
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Instructions

1. Silence all cell phones and any other devices, and remain quiet at all times during the exam.
2. Only non-programmable calculators may be used during the exam. You may NOT share non-programmable calculators.
3. Place your student card face up on your desk for the duration of the exam.
4. This questionnaire is printed *double sided*. Fill in your name and student number on the first page of *this questionnaire*. You may use the detachable blank sheet at the end of the questionnaire for your rough work.
5. Print the COURSE CODE, your STUDENT NUMBER and your LAST NAME ONLY on the *Answer Sheet* provided. Then blacken the cells (little ovals) using a pencil. Exams with missing or incomplete personal information will not be graded.
6. There are 50 multiple choice questions in total, each worth 1 point. Make sure your copy is complete.
7. Use the Answer Sheet to answer the Multiple Choice questions. *Do so by identifying the letter of the choice that best completes the statement or answers the question.*
8. When you have finished, personally hand your *completed Answer Sheet and questionnaire* to one of the TAs or me.
9. Please look at the blackboard from time to time for information and/or possible corrections.

You have 80 minutes to complete the exam. Good luck !!

1. What is welfare economics?
 - a. the study of the well-being of less fortunate people
 - b. the study of welfare programs
 - c. the study of the effect of income redistribution on work effort
 - d. the study of how the allocation of resources affects economic well-being
2. If a market is allowed to move freely to its equilibrium price and quantity, what will be the result of an increase in supply on consumer surplus and producer surplus?
 - a. increased consumer surplus and increased producer surplus
 - b. increased consumer surplus and uncertain change in producer surplus
 - c. reduced consumer surplus and reduced producer surplus
 - d. reduced consumer surplus and uncertain change in producer surplus
3. Which example illustrates the concept of a negative externality?
 - a. a college student plays his new sound system in the residence at 2:00 a.m.
 - b. a flood wipes out a farmer's entire corn crop
 - c. a college professor loses a vigorous game of racquetball using the racquet he recently purchased
 - d. a janitor eats fast-food during his lunch break
4. What happens when goods are available in an economy free of charge?
 - a. Too many of these goods will be produced since there is no cost of production.
 - b. Market forces cannot be used to allocate resources.
 - c. Goods are not available in market economies free of charge.
 - d. The product will have no value for the majority of the population.
5. What effect does a tax placed on buyers have?
 - a. It shifts demand downward, causing both the price received by sellers and the equilibrium quantity to fall.
 - b. It shifts supply downward, causing the price received by sellers to fall and equilibrium quantity to rise.
 - c. It shifts demand upward, causing both the price received by sellers and the equilibrium quantity to fall.
 - d. It shifts supply upward, causing the price received by sellers to rise and equilibrium quantity to fall.
6. With pollution permits, what is the nature of the supply curve for pollution rights?
 - a. inelastic
 - b. elastic
 - c. perfectly elastic
 - d. perfectly inelastic

7. Two firms, A and B, each currently dump 50 tonnes of chemicals into the local river. From now on both firms will require a pollution permit for each tonne of pollution dumped into the river. The government gives each firm 20 tonnes' worth of pollution permits, which it can either use or sell to the other firm. It costs Firm A \$100 for each tonne of pollution that it eliminates before it reaches the river, and it costs Firm B \$50 for each tonne of pollution that it eliminates before it reaches the river. What is likely to happen?
- Firm B will buy all of Firm A's pollution permits. Each one will cost less than \$50.
 - Firm A will buy all of Firm B's pollution permits. Each one will cost less than \$50.
 - Firm A will buy all of Firm B's pollution permits. Each one will cost between \$50 and \$100.
 - Firm B will buy all of Firm A's pollution permits. Each one will cost between \$50 and \$100.

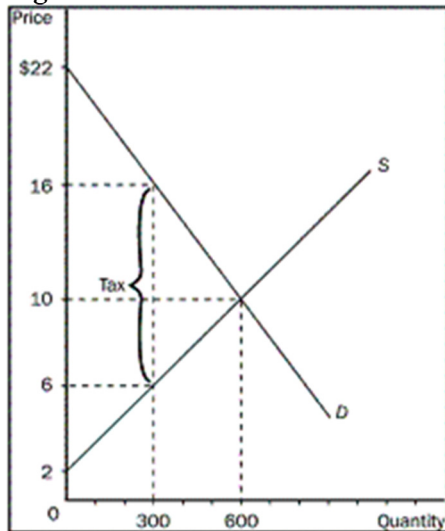
Scenario 1

Assume that Kierra cleans Cate's house weekly for \$100. Cate would be willing to pay as much as \$125 weekly to have her house cleaned. Kierra's opportunity cost is \$80.

8. **Refer to Scenario 1.** What would happen if Cate is required to pay a tax of \$40 when she hires someone to clean her house?
- Kierra will continue to clean Cate's house, but the consumer surplus will decline.
 - Kierra will continue to clean Cate's house but the producer surplus will decline.
 - Total economic welfare (consumer surplus plus producer surplus plus tax revenue) will increase.
 - Cate will now clean her own house.
9. When evaluating the size of the deadweight loss due to a tax, what do we know?
- the smaller the decrease in both quantity demanded and quantity supplied, the greater the deadweight loss
 - the greater the elasticities of supply and demand, the greater the deadweight loss
 - the smaller the elasticities of supply and demand, the greater the deadweight loss
 - the greater the elasticities of supply and demand, the smaller the deadweight loss
10. According to the Coase theorem, under which conditions can private parties solve the problem of externalities?
- if the number of parties involved is sufficiently large
 - if the number of parties involved is sufficiently small
 - if the initial distribution of rights favours the person being adversely affected by the externality
 - if the cost of bargaining is small
11. When externalities are present in a market, how is the well-being of market participants and market bystanders affected by government policies?
- Market participants are directly affected, and market bystanders are indirectly affected.
 - Market participants and market bystanders are both directly affected.
 - Market participants are indirectly affected, and market bystanders are directly affected.
 - Market participants and market bystanders are both indirectly affected.

12. Why is a cost-benefit analysis of a highway difficult to conduct?
- a. Analysts do not have a price with which to judge the value of the highway.
 - b. Analysts are unlikely to have access to costs on similar projects.
 - c. Analysts are not able to consider the opportunity cost of resources.
 - d. Analysts cannot estimate the explicit cost of a project that has not been completed.
13. The town of Turner Valley does not have any public snow plows. Anyone who wants their street cleared of snow must hire a private snow plow company to do it for \$75. Shelby, Ravi, and Mandy all live on a dead-end street, with Shelby living at the very end of it. Each one values snow removal at \$50. At present, the snow is never cleared from the street. What can we conclude?
- a. Ravi and Mandy should wait for Shelby to pay for the service because if the snow is cleared all the way to Shelby's house, Ravi and Mandy will get the service for free.
 - b. The current situation is best because the cost of snow removal exceeds what each of them is willing to pay for it.
 - c. Shelby, Ravi, and Mandy could all be better off if they acted collectively.
 - d. The fee charged by the snow removal company is unfairly high.
14. When a good is taxed, are buyers and sellers worse off or better off?
- a. Both buyers and sellers are better off.
 - b. Both buyers and sellers are worse off.
 - c. Sellers are worse off and buyers are better off.
 - d. Buyers are worse off and sellers are better off.
15. When something of value has no price attached to it, such as a public good, what will likely happen?
- a. Private companies will eventually produce the product and the good will no longer be free.
 - b. Only those who are better off have to pay.
 - c. The good will be completely used up.
 - d. Externalities will be present.
16. What are two types of private solutions to the problem of externalities?
- a. charities and subsidies
 - b. charities and the Golden Rule
 - c. the Golden Rule and taxes
 - d. taxes and subsidies

Figure 1



17. Refer to Figure 1. If the tax is imposed on the buyer, what would the producer surplus be?
- \$600
 - \$900
 - \$1200
 - \$1500
18. Refer to Figure 1. What would happen to total surplus in this market if the tax were imposed on the buyer?
- It would increase by \$1500.
 - It would fall by \$3000.
 - It would fall by \$1500.
 - It would increase by \$3000.
19. Suppose Lauren, Leslie, and Lyndsay all purchase bulletin boards for their rooms for \$20 each. Lauren's willingness to pay was \$35, Leslie's willingness to pay was \$25, and Lyndsay's willingness to pay was \$30. What is the total consumer surplus for these three?
- \$10
 - \$20
 - \$30
 - \$40
20. What can be said when the government reverts to a command-and-control policy to solve an externality?
- It usually involves taxing consumption of a commodity.
 - It typically refers to the Coase theorem to structure the policy.
 - It is usually the most effective policy option available.
 - It creates policies that directly regulate behaviour.

21. Which statement about a well-maintained yard best conveys the general nature of externalities?
- A maintained yard conveys a negative externality because it makes other property owners in the neighbourhood feel like their homes are less valuable.
 - A maintained yard conveys a positive externality because it increases the value of adjacent properties in the neighbourhood.
 - A maintained yard conveys a positive externality because it increases the home's market value.
 - A maintained yard conveys a negative externality because it increases the property tax liability of the owner.
22. What happens if a government increases the tax rate?
- As the tax rate rises, tax revenue rises for a while, but eventually begins to fall; deadweight loss rises but also begins to fall as tax revenue falls.
 - As the tax rate rises, tax revenue rises for a while, but eventually begins to fall; deadweight loss continually rises.
 - As the tax rate rises, tax revenue rises for a while, but eventually begins to fall; deadweight loss falls for a while, but begins to rise as tax revenue falls.
 - As the tax rate increases, tax revenue continually rises and deadweight loss continually falls.

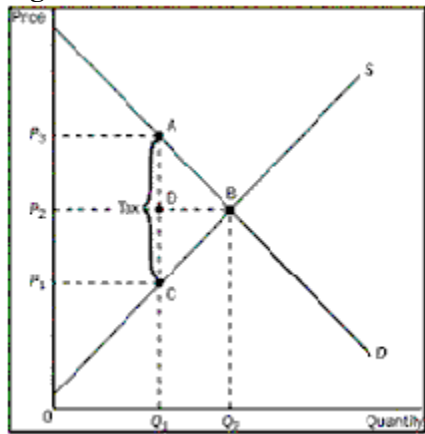
Table 1

Seller	Cost
Dale	\$1500
Jill	\$1300
Denise	\$1000
Catherine	\$950
Jackson	\$600

23. **Refer to Table 1.** If the price is \$1100, who would be willing to supply the product?
- Catherine and Jackson
 - Dale and Jill
 - Denise, Catherine, and Jackson
 - Dale, Jill, and Denise
24. What are uncongested roads a good example of?
- a club good
 - a common resource
 - a public good
 - a private good
25. When is a good excludable?
- when the government can regulate its availability
 - when people can be prevented from using it
 - when one person's use of the good diminishes another person's enjoyment of it
 - when one person's use of the good increases another person's enjoyment of it

26. At Nick's Bakery, the cost to make Nick's homemade chocolate cake is \$4 per cake. He sells four and receives a total of \$24 worth of producer surplus. What is Nick selling his cakes for?
- \$2 each
 - \$7 each
 - \$8 each
 - \$10 each**
27. What results once tradable pollution permits have been allocated to firms?
- The government controls the price of permits.
 - Firms that can reduce pollution only at high cost will be willing to pay the most for the pollution permits.**
 - The value of pollution-saving technology is always lower than the market value of a pollution permit.
 - The total amount of pollution governed by the permit will always decrease.
28. The Tragedy of the Commons will be evident when a growing number of hikers using the trails which leads to destruction of the ecosystem. How can this problem be corrected?
- The government could auction off a limited number of hiking permits.**
 - The government could allow individual hikers to take responsibility for maintaining the trails.
 - The government could provide more hiking trails.
 - The externality could be internalized by subsidizing back country camp sites.
29. Why is the best price the particular price that results in quantity supplied being equal to quantity demanded?
- It maximizes the total welfare of buyers and sellers.**
 - It minimizes the expenditure of buyers.
 - It maximizes sellers' costs.
 - It maximizes profit for buyers.
30. Market demand is given as $QD = 150 - P$. Market supply is given as $QS = 4P$. In a perfectly competitive equilibrium, what will be the value of producer surplus?
- \$1800**
 - \$2304
 - \$7200
 - \$9216
31. How are club goods classified?
- neither excludable nor rival in consumption
 - excludable but not rival in consumption**
 - both excludable and rival in consumption
 - rival in consumption but not excludable

Figure 2

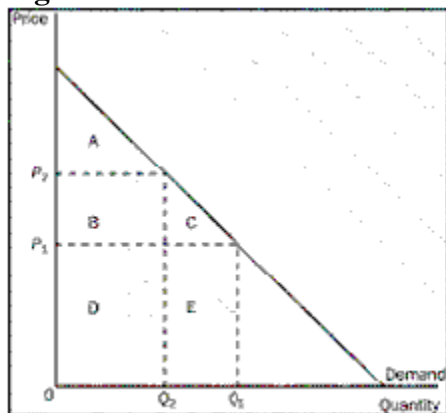


32. Refer to Figure 2. What is the per-unit burden of the tax on the sellers?
- $P_3 - P_2$
 - $P_2 - P_1$
 - $(P_2 - P_1)/Q_1$
 - $(P_3 - P_2)/Q_1$
33. What is the difference between technological knowledge and general knowledge?
- General knowledge is excludable and technological knowledge is not.
 - General knowledge is rival in consumption and technological knowledge is not.
 - Technological knowledge is excludable and general knowledge is not.
 - General knowledge creation is usually more profitable for the creator.
34. If the cost of producing sectional sofas decreases, what happens to consumer surplus?
- It increases.
 - It decreases.
 - It remains constant.
 - It increases then decreases.
35. When does inefficiency exist in an economy?
- when a good is distributed fairly among buyers
 - when a good is being consumed by buyers who value it most highly
 - when a good is not distributed fairly among buyers
 - when a good is not being produced by the lowest-cost producers
36. A tax is imposed on a market with elastic demand and inelastic supply. Who bears most of the burden of the tax?
- Sellers will bear most of the burden of the tax.
 - The burden of the tax will be shared between buyers, sellers and government.
 - The burden of the tax will be shared equally between buyers and sellers.
 - Buyers will bear most of the burden of the tax.

37. Assume that a tax is levied on a good and that the government uses the revenue to clean up lethal toxic waste that would cause irreparable harm to a large number of people. In this case, which of the following outcomes would NOT occur?
- an increase in the total economic welfare of society
 - a decrease in producer surplus to producers of the taxed good
 - a decrease in the total economic welfare of society
 - a decrease in consumer surplus to consumers of the taxed good
38. Brennan owns a dog whose barking annoys Brennan's neighbour Emily. Suppose that the benefit of owning the dog is worth \$700 to Brennan and that Emily bears a cost of \$500 from the barking. Assuming Brennan has the legal right to keep the dog, what is a possible private solution to this problem?
- Brennan pays Emily \$500 for her inconvenience.
 - Emily pays Brennan \$650 to get rid of the dog.
 - Emily pays Brennan \$700 to get rid of the dog.
 - There is no private solution that would improve this situation.
39. With technology spillover, to ensure that the market equilibrium equals the social optimum, what should government do?
- It should reward those who benefit from the spillover.
 - It should not allow production of any product that causes a technology spillover.
 - It should provide a subsidy equal to the value of the technology spillover.
 - It should impose a tax greater than the value of the technology spillover.
40. Which outcome will occur as a result of a tax, whether the tax is placed on the buyer or the seller?
- price the seller receives is higher
 - supply curve will shift upward
 - demand curve will shift upward
 - size of the market is reduced
41. What is using a toll to reduce traffic when congestion is greatest an example of?
- a command-and-control policy
 - a cap-and-trade solution
 - a Coase theorem solution
 - a corrective tax
42. Which term refers to the loss in total surplus resulting from a tax?
- deadweight loss
 - economic loss
 - market loss
 - efficiency loss

43. Suppose that installing an overhead pedestrian walkway would cost a college town \$50,000. If the walkway is expected to reduce the risk of fatality by 2 percent and the cost of a human life was estimated at \$5 million, what would the town do?
- The town would install the walkway because the estimated benefit equals the cost.
 - The town would install the walkway because the estimated benefit is twice the cost.
 - The town would not install the walkway since the cost is twice the estimated benefit.
 - The town would install the walkway since the cost of even a single life is too great.
44. What does a demand curve measure?
- a buyer's willingness to pay
 - the least a buyer will pay for the product
 - the actual price a buyer must pay to get the product
 - the difference between a buyer's willingness to pay and the actual price of the product

Figure 3



45. Refer to Figure 3. Which does NOT occur when the price rises from P_1 to P_2 ?
- Some buyers leave the market because they are not willing to buy the good at the higher price.
 - Consumer surplus in the market falls.
 - The total value of what is now purchased by buyers is actually higher.
 - The buyers who still buy the good are worse off because they now pay more.
46. Who is the marginal seller?
- the seller who has the greatest producer surplus
 - the seller who would leave the market first if the price were any lower
 - the seller who can produce at the lowest cost
 - the seller who cannot compete with the other sellers in the market

Table 2

Price	Quantity Demanded	Quantity Supplied
\$18	0	12
\$15	4	10
\$ 12	8	8
\$ 9	12	6
\$ 6	16	4
\$ 3	20	2

47. **Refer to Table 2.** At the equilibrium price, what would total surplus be?
- \$18
 - \$24
 - \$48
 - \$72**
48. Why are too few resources generally devoted to research in new technologies in developing countries?
- Inventors cannot capture the full benefits of their inventions.**
 - Negative externalities are created from some research.
 - New technologies cannot be patented.
 - Government research grants are not easily obtainable.
49. What do advocates of antipoverty programs believe about fighting poverty?
- It is most successfully done by charities.
 - It should not be done with tax dollars.
 - It can make everyone better off.**
 - It can be done efficiently by the market system.
50. In class action lawsuits, interested parties to the lawsuit are not required to pay attorney fees directly. This is an example of an attempt to do what?
- reduce the transaction costs of finding a private solution to an externality**
 - reduce the incentive of attorneys to take on class action lawsuits
 - regulate attorney fees in class action lawsuits
 - increase attorney fees by charging a percentage of the final settlement

