1. Describe the sources of point and non-point water pollutants
2. What major difference can be stated in USA vs. Canadain system of criminial code and which kind of offense should an environmental problem be related to?
3. James brothers are producing polyester materials with heavy carbon footprint in Sumgait Industrial Park. Their total production function is Y = 2x^2 + 10x. Marginal demand for James products is expressed with y = -5x+28. If a tax of 10% of the equilibrium price is levied on the producer how would the price change? Show the graphic change by labelling it properly.
4. What were the impacts of US SO2 market under the Clean Air Act?
5. Which instruments are used by regulatory agencies to cope with environmental problems?
6. James brother’s produce organic-chemical materials with heavy environmental footprint. Total Production function equals y = 5x^2 + 7x. Marginal demand curve for their goods is demonstrated using y = -5x + 37. A new tax is levied on a) Consumers at a 10% of the current equilibrium price; b) Producers at 20% of the effective equilibrium price. Find: 1) The new equilibrium price using your own judgement: 2) Show the graphic movements of a and b; 3) Who bears more tax burden on this wasteful product?
7. Little Chemical’s are producing organic materials with heavy Sulphur content and footprint in Balakhani Industrial Park. Their total production function is Y = 5x + 7. Marginal demand for their product is expressed with y = -7x+7. Find the old equilibrium. By judging your theoretical knowledge on elasticity and taxation try to calculate a new equilibrium price and quantity considering the fact that government taxes consumers. Label your graph. Who bears the newly introduced environmental tax burden?
8. What are the externalities from water use?
9. What is the difference between permanent and degradable water pollutants? Bring an example for one each of them.
10. Archaic producers produce wasteful goods for communities. Every metric ton of its product is taxed at 10% of the equilibrium price. If elasticity of demand is perfect and elasticity of supply is less perfect and demonstrated by y = 8x +1 find the new equilibium price considering the fact that demand is met at $5 dollars by consumers.
11. Tamiz Shahar Co. is a waste-to-energy company based in Baku Azerbaijan. Debate in 5-6 phrases as to why it would not be best to construct a waste-to-biofuel plant instead of waste-to-energy.
12. Explain the regulatory, economic and social limits of producing shale gas in a) Russia, b) Europe and c) USA.
13. Ordinary Plastic Goods are producing organic materials with heavy Sulphur content and footprint in Balakhani Industrial Park. Their total production function is Y = 3x + 7. Marginal demand for their product is expressed with y = -5x+3. Find the old equilibrium. By judging your theoretical knowledge on elasticity and taxation try to calculate a new equilibrium price and quantity considering the fact that government taxes consumers. Label your graph. Who bears the newly introduced environmental tax burden?
14. The Solar World is a photovoltaic panel producing company based in eastern germany. Households and businesses buy those panels and install to produce their own electricity. The Solar World has financial difficulties to continue its business. Notes: Households may buy and sell electricity at different prices, A foreign competitor may be a factor. Simulate possible reasons for potential problems of Solar World in 5-6 phrases.
15. Explain the socially efficient rate of output in a plain example. Draw the graph needed. Label and mark the areas. Be comprehensive.
16. Explain external costs and market outcomes. Don’t miss any part of the graph. Provide two real life samples: from Baku and EU.
17. Explain the aggregate willingness to pay for a Public Good. Talk about the Montreal and Kyoto protocols in 2 phrases each. Which protocol did Canada leave? Why?
18. What is the meaning of dirty vs. unethical oil? Why US government bans the Canadian plan to construct Keystone XL pipeline from US to Mexican gulf? Is it an engineering, social license or political problem? Prove your position.
19. Explain hedonic estimation using a MWTA curve. Bring two examples for hedonic extimation. (Hint: Recall the Sumgait plant example to help you come up with two examples.)
20. What is meant by the frustration of federal purpose, bring up a real example for it.
21. Why would a government find it inefficient to manage environment by setting taget level pollution rates.
22. Draw a MAC curve for two sources. Why are they different from each other? What other factors may be a reason for these curves to have different patterns?
23. Explain the cost savings from technological change in the case of standards. Don’t forget the graph, labels and areas under the graph.
24. Draw a picture of two plants and an eastbound wind and water in between them. If the region around these plants is overpolluted what positions would you take to make decisions? Whould you stop these plants? Which plant would be shutting down first if you were surrounded by big neighbours? Explain costs and obligations associated with your decision pattern?
25. What is the difference between ambient and absolute level of pollution? Does ambient level fit well with market based insentives or it goes well with command control based models?
26. Explain the regulatory, economic and social limits of producing shale gas in a) Russia, b) Europe and c) USA. Draw your imaginary graph on production price and environmental costs for these regions.
27. Draw a picture of two plants and an eastbound wind and water in between them. If the region around these plants is overpolluted what positions would you take to make decisions? Whould you stop these plants? Which plant would be shutting down first if you were surrounded by big neighbours? Explain costs and obligations associated with your decision pattern?
28. For Municipal solid waste treatment how do you interpret the relationship stated as: VM = TM(1-r)
29. Why is it that consumers get no incentives to reduce their solid waste discard? (Hint: fees per unit waste discard, implicit volume limits, financial incentives to reduce discard and moral incentives)
30. If VM = TM(1-r), graph the effects of tax levied per plastic bag of a good. How would your Demand and Supply curves move?
31. What will happen when environmental costs of input use and waste disposal are not reflected in the prices paid by producers?
32. Why recycled inputs may typically cost more than virgin inputs?
33. Illustrate (in a graph) inefficient versus efficient disposal of household waste when a fee per bag of trash disposed is introduced?
34. If VM = TM(1-r) then graph the effect of tax applied to the volume of plastic bags? How will the supply curve move?
35. Explain a possible major cause for this pattern: “The quantity of waste-generating good produced falls from Q0 to Q1, and prices rise from P0 to P1”.
36. How can solid waste discharge be reduced if recycling is not achieved?
37. Talk about Minimum content standards when it comes to products households use in 3-4 phrases
38. VM = TM(1-r), Using the equation talk about two ways of reducing need for VM.
39. What happens to the supply curve when full social cost pricing of inputs for producers increase?
40. Talk in 5-6 phrases about disposal costs that are divided into private and social disposal costs.
41. “In mandatory recylcing the recylcing process starts back at the choice of purchase made by consumers”. – Interpret the given excerpt.
42. How do you interpret the relationship stated as: VM = TM(1-r)
43. Illustrate (in a graph) disposal of household waste when a fee per bag of trash disposed is introduced?
44. Explain the Coase theorem. Show in a sketch the difference between net profits when property rights belong to either parties; Chemical plant (polluter) or fishery
45. Why is it that net profits differ althout the sociallly efficient level of pollution is achieved in the Coase theorem?
46. Explain the cost implications to a polluter (Chemical Plant) considering property rights (for a lake, forest or an area) is owned by that polluter.
47. Explain the cost implications to a polluter (Chemical Plant) considering property rights (for a lake, forest or an area) is not owned by that polluter.
48. Explain the net pofit of a polluter when neither party holds the property rights? Which party losses first? Who pays the ultimate cost? – Pause and think about the ultimate social consequences faced by both parties.
49. Coal-Fired Originators are using heavy industrial processes in their Calfironia market. Their total production function is Y = 11x^2 + 1. Marginal demand for their product is expressed with y = -6x+28. Find the effective equilibrium as of now. By judging your theoretical knowledge on elasticity and taxation try to calculate a new equilibrium price and quantity considering the fact that government taxes consumers. Label your graph. How the newly introduced environmental tax burden is shared?
50. Explain the equimarginal principle and draw the graphs needed. Assign letters to each area for

any two plants and define the meanings of the area noted by you.

1. Let MAC1 =100 – 10E and MAC2 = 50 – 10E. Graph each equation and compute the aggregate MAC curve. Let MD = 30E, compute the socially efficient equilibrium.
2. Graphically link the MAC curve to profit maximization by demonstating MD, MC+MD, MC curves and holding 1 unit of production equal to 1 unit of pollution. Explain the real call of this linkage
3. Link the MAC and MD curve of the pollution to profit line considering below graphs. MC = x, MD = x, MAC = 40 – x, Profit line = 30. Calculate the total costs required to abate the technology from 40 units of pollution till the socially efficient level of pollution given that 1 unit of pollution is equal to 3 units of production. How much profit is left after abatement costs incurred?
4. Link the MAC and MD curve of the pollution to profit line considering below graphs. MC = 2x, MD = x, MAC = 30 – x, Profit line = 30. Calculate the total costs required to abate the technology from 30 units of pollution till the socially efficient level of pollution given that 1 unit of pollution is equal to 2 units of production. How much profit is left for the firm if government puts a pollution cap of 20 units?
5. Link the MAC and MD curve of the pollution to profit line considering below graphs. MC = 2x, MD = x, MAC = 30 – x, Profit line = 30. Required: Calculate total costs of abatement till a) socially efficient level and b) until pollution is reduced to 15 units. How many units of pollution should be reduced if the intended total cost of MAC area is $90?
6. How would you describe moral suasion? Talk about Minimum content standards when it comes to products households use in 3-4 phrases.
7. Coal-Fired Originators are using heavy industrial processes in their Calfironia market. Their total production function is Y = 11x^2 + 1. Marginal demand for their product is expressed with y = -6x+28. Find the effective equilibrium as of now. By judging your theoretical knowledge on elasticity and taxation try to calculate a new equilibrium price and quantity considering the fact that government taxes consumers. Label your graph. How the newly introduced environmental tax burden is shared?
8. Let MAC =100 – 10E. Let MD = 30E, compute total costs required for socially efficient level of abatement if a firm’s emission footprint is on 100th unit of pollution. Calculate total MAC costs till the regulatory limit which is 20 units. Calculate net social loss, if any, for the pollution level of 20 units set by regulatory limit.
9. Let MAC =200 – 20E. Let MD = 30E, compute total costs required for socially efficient level of abatement if a firm’s emission footprint is on 100th unit of pollution. Calculate total MAC costs till the regulatory limit which is 30 units. Calculate net social loss, if any, for the pollution level of 30 units set by regulatory limit.
10. Graphically link the MAC curve to profit maximization by demonstating MD, MC+MD, MC curves and holding 1 unit of production equal to 1 unit of pollution. Explain the real call of this linkage
11. What is the meaning of dirty vs. unethical oil? Why US government bans the Canadian plan to construct Keystone XL pipeline from US to Mexican gulf? Is it an engineering, social license or political problem? Prove your position.
12. Recall the example of no-cost improvements in Canada. Explain what happened to world energy prices, how the prices of fuel oil and gasoline changed in Canada. Interpret the logical understanding of no-cost improvement.
13. Explain why agricultural and energy price subsidies may lead to unintended environmental consequences. Bring an example of zero-social-cost changes either from Canada, USA or Azerbaijan.
14. There is an important principle that has to be kept in mind. In doing a benefit–cost analysis of how individuals and firms will respond to new laws, we want to use the with/without approach and not the before/after approach. Explain with/without concept in the following example:

Estimated production costs:

Before the regulation: $200

In the future without the regulation: $240

In the future with the regulation: $280

1. Suppose in a particular small town there is a large apple orchard that provides substantial local employment. Suppose further that the orchard managers currently use relatively large applications of chemicals to control apple pests and diseases, and that the chemical runoff from this activity threatens local water supplies. Assume that the community enacts an ordinance requiring the orchard to practice integrated pest management (IPM), a lower level of chemical use coupled with other means to compensate for this reduction. Assume further, for purposes of illustration, that the IPM practices increase the costs of raising apples in this orchard.

Explain the costs of a local regulation using integrated pest management for an orchard.

1. Using your knowledge from tax burdens in environmental economics explain the incidence of costs changes where social costs may be borne by someone other than polluter. Refer to elasticity of demand and supply of goods in output markets and if possible in input markets. (Hint: labor force is an example of input market)
2. James brother’s produce organic-chemical materials with heavy environmental footprint. Total Production function equals y = 5x^2 + 7x. Marginal demand curve for their goods is demonstrated using y = -5x + 37. A new tax is levied on a) Consumers at a 10% of the current equilibrium price; b) Producers at 20% of the effective equilibrium price. Find: 1) The new equilibrium price using your own judgement: 2) Show the graphic movements of a and b; 3) Who bears more tax burden on this wasteful product?
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6. What is assimilative capacity and what is meant by the reasiduals intensity of production?
7. What is meant by the composition of output and how it should be understood in environmental economics?
8. What is understood by socially efficient production and what is the economic meaning of efficiency. Recal the example of taxi cab taxation in India and relate it to social efficiency as a whole.
9. WalMart suppliers produce waste intensive goods for communities. Every metric ton of its product is now taxed at 15% of the equilibrium price. If elasticity of demand is imperfect and elasticity of supply is less perfect and demonstrated by y = 10x +1 find the new equilibium price considering the fact that demand is met at $5 dollars by consumers.
10. What is meant by carbon sink, adaptation, mitigation and precautionary priniciple in environmental context?