

Name_____

Vorname_____

Matrikel-Nr.:_____

Studiengang:_____

☐ Regulärer Versuch

☐ 1. Whlg.

Universität Rostock
Wirtschafts- und Sozialwissenschaftliche Fakultät
Lehrstuhl für VWL – Außenwirtschaft –

Klausur
Introduction to Environmental and Resource Economics
(BSc Wirtschaftswissenschaften)

SoSe 2020, 31.7.2020

- Beantworten Sie **zwei der drei** gestellten! Unterschreiben Sie die Klausur auf der letzten Seite. Alle Aufgaben sind gleich gewichtet.
- Erlaubte Hilfsmittel: keine.
- *Please answer **two out of three** questions! All questions are equally weighted.*
- *Additional materials allowed: none.*

Bearbeitungszeit: 90 Minuten

Time limit: 90 minutes

Two (and only two) out of three questions! If you adopt the notation used in the lectures, you do not have to explain the symbols you use.

1

Characterise the international environmental agreements of Montreal (1987) and Kyoto (1997). Start with a brief explanation of the global environmental problems addressed by these treaties. Then discuss the measures taken – with particular reference to economic incentives and economic efficiency.

2

A large number of identical competitive firms exploit an exhaustible natural resource. Future profits are discounted at the interest rate, r , and marginal extraction cost is constant. Write down the Hotelling rule and interpret it economically. Then draw a four-quadrants diagram using a demand function with a choke price and derive the extraction path. What would happen if the choke price were lower?

3

Use a payoff matrix with a numerical example to characterize the prisoners' dilemma of transfrontier pollution in the two-countries case! Extend the model to more than two countries (three is enough) and show that the coalition of size 2 is internally and externally stable. Finally explain the chicken game structure of the resulting coalition formation game. You can do this verbally or with a payoff matrix.