Last Name:_____   First Name:_____

Immatriculation No.:_____   Place No.:_____

BERGISCHE UNIVERSITÄT WUPPERTAL
Fachbereich Wirtschaftswissenschaft

Klausuraufgaben

International Environmental Economics
and International Policy Issues

Alle Studienrichtungen

Prüfer / Examiner:
Prof. Dr. P.J.J. Welfens

Prüfungstag / Date:
29.02.2016

Erlaubte Hilfsmittel / Allowed tools:
Taschenrechner (Nicht-programmierbar) / Calculator (Non-programable)

Alle Aussagen sind zu begründen und Rechenschritte, so fern notwendig vollständig wiederzugeben.
Abweichungen führen zu Abzügen bei der Punktzahl.
Bei Unklarheiten im Verständnis der Aufgaben ist anzugeben unter welche Annahmen die Aufgaben bearbeitet wurden.
Die Klausur gilt als bestanden, wenn die erreichte Punktzahl mindestens 45 Punkte beträgt.
Nutzen Sie die vierte Seite des Aufgabenhefts als Konzeptpapier.

All arguments are to be justified and all steps of any calculation should be stated.
Deviations might lead to a deduction of points.
If unclear on how to answer a question, name the assumptions under which the question has been answered.
The exam is passed if the overall amount of points is at least 45.
Please use the last page of the exercises for notes.

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Unterschrift / Signature

Die Klausur besteht aus insgesamt 3 (drei) Seiten. / The exam consists of 3 (three) pages.

Part I - Udalov
Question 1 (10 Points)
Define a negative external effect. What are the implications of negative externalities? Name two theoretical instruments that can be used in order to internalize a negative externality and explain shortly how they work.

Question 2 (6 Points)
Name 3 standard-orientated environmental instruments and evaluate them using ecological efficiency, cost efficiency and dynamic incentive effects.

Question 3 (14 Points)
Two firms are ordered by the federal government to reduce their pollution level. The abatement aim is 90 units ($A = 90$). The first firm's abatement cost function corresponds to

$$AC_1 = 100 + \frac{8}{2}A_1^2.$$

The second firm's abatement cost function is

$$AC_2 = 100 + 5A_2^2$$

a) (6 Points) In order to reach the corresponding abatement aim the regulator introduces the uniform command and control (CAC) regulation. The both firms have to abate $A_1 = A_2 = 45$. Calculate marginal abatement costs in this case for the both companies. Discuss whether the abatement amounts of respective firms are cost efficient or not.
b) (8 Points) The regulator decides to use the individual command and control (CAC) regulation. Calculate the cost efficient abatement of the respective firms.

Part II - Wilts
Question 1 (10 Points)
Describe a classification scheme for natural resources. How do natural resources differ from raw materials?

Question 2 (10 Points)
Which new qualities of environmental challenges have lead to the emergence of resource efficiency policies? Why is it difficult to describe a sustainable level of resource consumption?

Question 3 (10 Points)
What criteria define an efficient mix of market based instruments for resource efficiency?

Part III - Erdem
Question 1 (18 Points)
Please answer the following questions.
   a) (9 Points) Please explain the 3 main objectives of energy policy
   b) (3 Points) Please describe the trade-offs between those and support your answer with examples.
   c) (3 Points) To which three additional objectives should serve EU-Member countries?
   d) (3 Points) Please list the determinants of energy policy.

Question 2 (12 Points)
Please explain 3 out of 4 concepts you choose: (4 Points each)
   • Carbon lock-in effect
   • Ecological Kuznet's curve
   • Dutch disease
   • Development of demand elasticity for oil since 70s