The exam has 2 parts, with a total of 7 questions. Please do not leave anything blank! Use the final page if you need more space. Please label any diagrams clearly, and write legibly.

**Section 1: Identifications (10 points each)** Define the concept and indicate its importance for interpreting development experience. Be brief: two sentences is enough!

1. Randomization

2. Short and long routes of accountability

3. Natural resource curse

4. Demographic transition
Section 2. Short answers (20 points each)

5. Why do economists consider the “Dutch disease” a disease? In other words, in what way does the Dutch disease make a country with primary commodity wealth worse off? In your answer, make sure you define the real exchange rate. A diagram may help you develop your points.
6. The classical economists (writing in the 18th and 19th centuries) believed that holding technology and culture constant, fertility was an increasing function of household income. The neoclassical theory (of Gary Becker), in contrast, states that fertility responds positively to some categories of household income, and but may respond negatively to others. What type of household income can decrease fertility, according to the neoclassical theory? Why exactly does fertility (possibly) fall for this type of income, but not for other types?
7. The table below shows average reading scores in 2006 and 2007 achieved by students who were in 4th grade in 2007. You are interested in estimating the impact of small class size on reading scores. The ‘treatment’ group consists of students who were in small classes in 2007. You have no information on class sizes in 2006.

<table>
<thead>
<tr>
<th>year</th>
<th>Average reading score on grade-level test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment group (in small classes in 2007)</td>
<td>Control group (in large classes in 2007)</td>
</tr>
<tr>
<td>2006 (3rd)</td>
<td>76</td>
<td>84</td>
</tr>
<tr>
<td>2007 (4th)</td>
<td>82</td>
<td>79</td>
</tr>
</tbody>
</table>

7.1. From looking at the data, do you think this was a randomized controlled trial (RCT)? Explain.

7.2. Explain briefly why a before/after comparison (82-76 = 6) in the treated group may yield a biased estimate of the effect of small class size on reading scores. Describe a situation in which the direction of the bias would be clear – i.e., where you would strongly suspect hat 6 is an over-estimate, or strongly suspect that it is an under-estimate.

7.3. What is your own best estimate of the effect of small class size on reading scores, given these data? Briefly explain.