

May Examination Period 2025

ECN370 Development Economics Duration: 2 hours

# YOU ARE NOT PERMITTED TO READ THE CONTENTS OF THIS QUESTION PAPER UNTIL INSTRUCTED TO DO SO BY AN INVIGILATOR.

The exam consists of two sections, A and B. Section A is worth 30 marks and consists of 5 true or false statements. Section B is worth 70 marks and consists of 3 longer questions.

Answer ALL questions from both sections. Cross out any answers that you do not wish to be marked.

Non programmable calculators are permitted in this examination. Please state on your answer book the name and type of machine used. Complete all rough workings in the answer book and cross through any work that is not to be assessed.

Possession of unauthorised material at any time when under examination conditions is an assessment offence and can lead to expulsion from QMUL. Check now to ensure you do not have more than 20 pages of notes. You should also not have mobile phones, smartwatches or unauthorised electronic devices on your person. If you do, raise your hand and give them to an invigilator immediately.

It is also an offence to have any writing of any kind on your person, including on your body. If you are found to have hidden unauthorised material elsewhere, including toilets and cloakrooms, it will be treated as being found in your possession. Unauthorised material found on your mobile phone or other electronic device will be considered an assessment offence. A mobile phone that causes a disruption in the exam is also an assessment offence.

#### EXAM PAPERS MUST NOT BE REMOVED FROM THE EXAM ROOM

#### **Examiners:**

Dr S Axbard

Page 2 ECN370 (2025)

## Section A (True or False)

Determine whether each of the following statements is "True" or "False" and provide a brief (maximum 3 sentences) explanation/intuition for your answer based on the theory and evidence discussed in the module. In other words, explain **why** the statement is "True" or "False". Each question is worth 6 marks.

**Q.A1** An export oriented industrialisation strategy has a smaller cost for consumers than an import substitution industrialisation strategy.

[6 marks]

Q.A2 Despite high interest rates, local moneylenders can be helpful for local communities to deal with covariate shocks.

[6 marks]

**Q.A3** According to the theory of induced technological innovations, innovation will occur where there is relative factor abundance.

[6 marks]

Q.A4 An aid-transfer is infra-marginal if the recipient wishes to spend less on the good than the aid received.

[6 marks]

Q.A5 Demand for preventive health care products is highly price elastic in developing countries.

[6 marks]

ECN370 (2025) Page 3

## Section B (Longer Questions)

**Q.B1 Agriculture and Development** Recent World Bank data suggests that over 50% of the labour force work in agriculture in low-income countries, while the corresponding figure for high-income countries is about 2%. Agriculture's share of GDP is around 20% in low-income countries and approximately 2% in high income countries.

a) What do these statistics tell you about the productivity of workers in the agricultural sector in low-income countries compared to high-income countries? Discuss at least two potential explanations.

[6 marks]

b) What do these statistics tell you about the productivity of the agricultural versus the non-agricultural sector in low-income countries? Explain what neoclassical theory suggests about how to address this difference in productivity.

[5 marks]

c) Derive an expression for the agricultural productivity gap implied by neoclassical theory. Assume Cobb-Douglas production functions in both the agricultural (a) and non-agricultural (n) sectors; that there is free labour mobility across sectors; that labour markets are competitive; and that the labour share in production is the same in both sectors (given by  $\theta$ ).

[8 marks]

d) Gollin, Lagakos and Waugh (2014) have calculated agriculture's value added and share of employment for several countries. According to their calculations, agriculture's share of employment was 47% for Pakistan and 11% for South Africa. Agriculture's share of value added was 23% for Pakistan and 7% for South Africa. What are the agricultural productivity gaps for these two countries, and what do these gaps imply about the misallocation of workers across sectors in both cases?

[6 marks]

- **Q.B2 Life Expectancy and GDP.** Cross-country data often show a strong positive correlation between life expectancy (in years) and GDP per capita (PPP-adjusted). In other words, people in countries with higher GDP per capita tend to live longer.
  - a) Can we infer from this correlation that people in healthier countries (i.e. those with longer life expectancy) are more productive? Explain your reasoning.

[6 marks]

b) In their paper "Disease and Development: The Effect of Life Expectancy on Economic Growth", Acemoglu and Johnson (2007) use the health revolution in the 1940s (the discovery of antibiotics, new vaccines, DDT treatment of mosquitoes, etc.) to study the effect of life expectancy on GDP per capita. Explain the approach taken in their study. What are the two key assumptions required for their empirical strategy to be valid, and are those assumptions likely to hold in this case?

[10 marks]

c) Acemoglu and Johnson (2007) estimate a negative effect of life expectancy on GDP per capita, contrasting with the positive correlation described above. Discuss why their findings differ, addressing both the methodological change and the underlying reasons for this seemingly counter-intuitive result.

[6 marks]

Page 4 ECN370 (2025)

Q.B3 Political Economy of Development This question discusses the role of the state in delivering development.

a) Throughout the module, we have seen a number of cost-effective government policies that improve development outcomes. Why do not all governments choose to implement these policies?

[6 marks]

b) In their study "The Private Returns to Public Office", Fisman et al (2014) investigate the effect of holding political office on private wealth. Explain in detail the approach they take to answer this question.

[9 marks]

c) The main result in Fisman et al (2014) is displayed in Figure 1. Explain what the figure shows. This result provides some insights on what motivates politicians. Discuss whether the results is mostly consistent with functionalist or pluralist theories of the state.

[8 marks]

### End of Paper - Appendix Follows

Figure 1: Fisman et al. (2014): Private Wealth Growth on Margin of Victory

