

令和 4 (2022)年度入学 外国人学生特別選抜試験（修士課程）

## 入学試験問題

Special Selective Examination for International Students (Master's Course), 2022

### 専門科目 Special Subject

（農業・資源経済学専攻）

Agricultural and Resource Economics

#### 小論文の作成に際しての注意点

1. 出願時に選択した専門科目を変更することはできない。
2. マイクロソフト社の Word で作成すること。ただし Word のバージョンは問わない。
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例：2020ABC（農業経営学）、2020ABC(経済学)
5. ページ設定はA4用紙、縦置き、横書き、40 字×30 行、フォントサイズは 11pt とすること。
6. 本文の第1行目に専門科目名、受験番号を記入すること。
7. 図を利用する場合は、画像として本文中に貼り付けること。
8. 表および数式を利用する場合は、画像ファイルとして本文に貼り付けるか、ワードの表機能や数式作成機能を利用すること。
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12. 他者から助言や添削を受けた場合は不正行為となる。
13. 課題の内容に関する質問は受け付けない。
14. 日本語または英語で解答すること。

以上

## Notice

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2. Prepare your answers in MS-Word files.
3. Create one file for each subject. You have to submit three files in total.
4. The name of the file should consist of your examinee's number and the name of the selected subject in parenthesis. For example, if your examinee's number is 2020ABC and the selected subject is Farm management, the file name should be "2020ABC(Farm management).doc" or "2020ABC(Farm management).docx".
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9. Make sure that your own name does not appear anywhere in the submitted materials. You are disqualified in the examination if your name is found.
10. Documents and materials referred to should be listed at the end.
11. Be sure to put the part quoted from the literature etc. in "" and specify the source.
12. Do not receive any advice or corrections from others.
13. Questions regarding the content of assignments are not accepted.
14. You may answer the questions either in English or Japanese.

That's all.

東京大学大学院農学生命科学研究科

令和 4 (2022)年度外国人学生特別選抜試験（修士課程）

（農業・資源経済学）

Special Selective Examination for International Students (Master's Course), 2022  
(Agricultural and Resource Economics)

Answer the questions of the three subjects you registered in the application out of the following subjects.

1. Farm Management

Explain the current situation in which various business forms exist in farm business and discuss the factors that influence the choice of business form. Answers should be 3-4 pages on A4 paper including the list of references.

2. Economics

Answer the following questions within three pages including the list of references.

- (1) Explain the theory of monopolistic competition.
- (2) Give some examples of monopolistic competitive markets observed in your country, and explain *one* of them according to the theory you explained the above problem.

3. Agricultural Economics

Discuss the issues that should be addressed in current food policy from the perspective of human health, global environment, and ecosystem. You should write your answer within 2 sheets of A4 size paper. The number of the referred/ cited papers and materials should be no more than three. The list of referred/ cited papers and materials should be written at the end of the document within the prescribed pages.

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#### 4. Agricultural Policy

First, explain what food security is. Next, briefly explain the situation of agricultural production and agricultural structure in your country, and then discuss the food security policy of your country. Answers should be 2-4 pages long including the list of references.

#### 5. Rural Development

Consider staple food crop production, for example maize production, by smallholders in a developing country, where net sellers, net buyers, and pure subsistence farmers coexist. If we calculate the profit from maize production using a standard formula given below, many farmers will have a negative profit and sometimes even their average profit will be less than zero.

$$Profit = pY - M - w(H + L) - Q - R$$

where  $Y$  = maize production (kg),  $p$  = maize price observed in the market after the harvest (\$/kg),  $M$  = cost of purchased inputs such as fertilizer, herbicide, insecticide, etc. (\$),  $H$  = total amount of hired labor (man-days),  $L$  = total amount of family labor (man-days),  $w$  = daily wage rate (\$/man-day),  $Q$  = cost of machines, either animal traction or tractors (\$), and  $R$  = cost of land (\$). Then, answer the following questions.

- (1) The formula above assumes that wage rate for family labor is the same as for hired labor. In what conditions will such an assumption be justifiable? Is it generally justifiable in rural areas in developing countries?
- (2) If a household uses its own machines, how will the cost for it ( $Q$ ) be evaluated to calculate the profit?
- (3) If a household uses its own land, how will the cost for it ( $R$ ) be evaluated to calculate the profit?
- (4) It is natural that an unexpected negative production shock and/or an unexpected negative price shock can reduce the profit even to below zero. However, other than such natural cases, there should be cases where the calculated profit is lower than farmers actually think. Discuss why such discrepancies happen with smallholders in developing countries.

Note that the maximum volume of the answer is 3 pages excluding the list of references.

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## 6. Development Economics

What does “spatial market integration” mean? In the case of agricultural product market in developing countries, what kinds of problems happen in poorly integrated markets compared with well integrated ones? Discuss potential impacts of digital technologies on the integration of agricultural product markets in developing countries. Note that the maximum volume of the answer is 3 pages excluding the list of references.

That's all.

令和 4 (2022)年度入学 外国人特別選抜試験 (博士課程)

## 入学試験問題

Special Selective Examination for International Students (Doctoral Course), 2022

### 専門科目 Special Subject

(農業・資源経済学専攻)

Agricultural and Resource Economics

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Special Selective Examination for International Students (Doctoral Course), 2022

以下の科目の中から、あらかじめ選択した3科目について、問題に答えなさい。

Answer the questions of the three subjects you registered in the application out of the following subjects.

1. 農業経営学

規模の経済の下でも小規模な農業経営が存在可能である条件について論じなさい。また、規模の不経済の下でも農業経営の規模拡大が進む場合について論じなさい。参考文献リストを含め、A4用紙3～4ページで解答すること。

2. Economics

Answer the following three questions within three pages excluding the list of references.

- (1) Explain the theory of monopolistic competition.
- (2) Give some examples of monopolistic competitive markets observed in your country, and explain *one* of them according to the theory you explained the above problem (1).
- (3) Discuss how to verify that the example you choose in (2) is consistent with the theory.  
If you think it impossible, discuss the reason why you think it unverifiable.

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### 3. 農業経済学 Agricultural Economics

2021 年 9 月 23 日～24 日に開催された国連食料システムサミットで議論された内容を紹介しながら、今後の食料政策への示唆を論じなさい。A4 用紙で 2 枚以内に日本語または英語でまとめなさい。関連する文献や資料を参照・引用することも可能である。参照・引用する文献・資料は合計で 3 点以内とすること。参照・引用文献は文章末に明示し、それも含めて規定の枚数に収めること。

Introduce what was discussed at the UN Food Systems Summit, held from 23 to 24 September, 2021, and discuss the implications for future food policy. You should write your answer within 2 sheets of A4 size paper in Japanese or English. The number of the referred/ cited papers and materials should be no more than three. The list of referred/ cited papers and materials should be written at the end of the document within the prescribed pages.

### 4. Rural Development

It is known that farmers in developing countries depend on varieties of informal insurance mechanisms in order to smooth consumption in the risky environment.

- (1) Explain why formal insurance is still necessary in spite of the informal arrangements in developing countries.
- (2) Explain why formal insurance such as crop insurance is generally infeasible in developing countries.

Index insurance is considered to solve the problems with conventional crop insurance.

- (3) What is index insurance? What are its advantages over conventional crop insurance?
- (4) Is there any weakness in index insurance? If yes, explain.
- (5) Discuss the impact of index insurance on agricultural production in developing countries based on several empirical studies.

Note that the maximum volume of the answer is 3 pages excluding the list of references.

### 5. 開発経済学 Development Economics

農業の経済発展への貢献について論じなさい。なお、解答の分量の上限は、引用文献リストを除いて 3 ページである。

Discuss the contributions of agriculture to economic development. Note that the maximum volume of the answer is 3 pages excluding the list of references.

以上 That's all.