H

RAFFLES INSTITUTION
2016 YEAR 6 Preliminary Examination

Higher 1

ECONOMICS

8819/01

Paper 1: Case Studies and Essays

31 August 2016

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST
DO NOT open this booklet until you are told to do so.

Write your name, index number and CT class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for diagrams, graphs or rough working.
Do not use paper clips, highlighters, glue or correction fluid.

Answer **all** questions in **Section A** and **one** question in **Section B**.

Begin answering each question on a fresh sheet of writing paper.

At the end of the examination,
- **Fasten** your answer to each question **separately.**

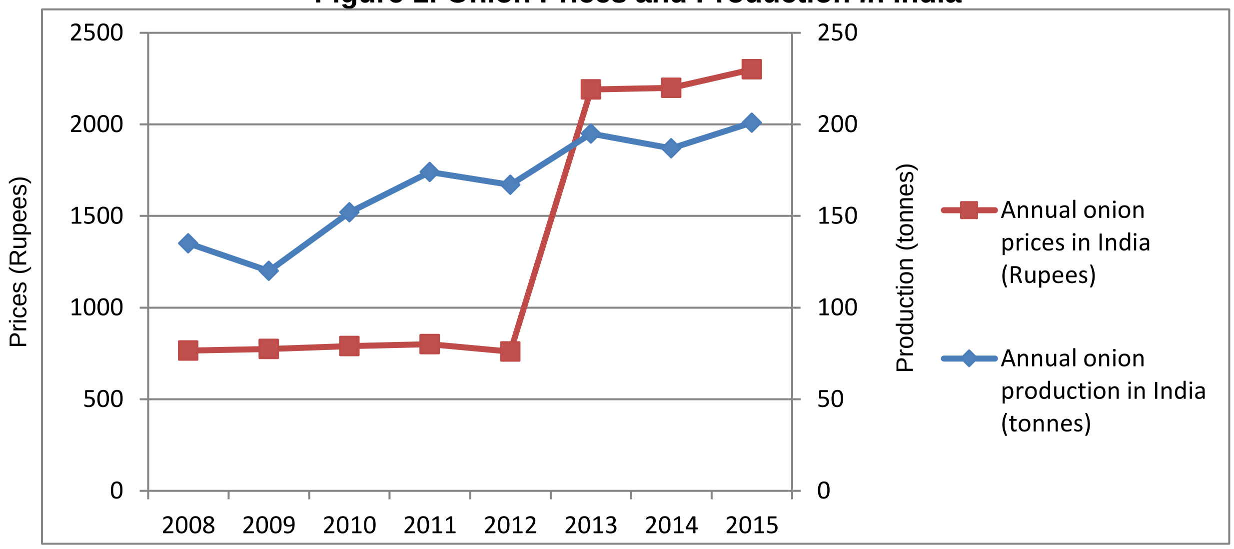
You are advised to spend several minutes per case study question reading through the data before you begin writing your answers.

Section A

Question 1

The Market for Onions and Other Agricultural Products

Figure 1: Onion Prices and Production in India



Source: Estimates from Indian government data

Extract 1: Government Expects Onion Prices to Moderate Soon

Unseasonal weather and hoarding have in the past months led to dramatic price rises. A doubling in retail prices across major cities is especially troubling for staples such as onions, an ingredient that is present in just about every Indian meal as it wreaks havoc on households' budgets. This price surge has added to the country's inflation woes according to data from the ministry of consumer affairs.

Singh, a laborer in Delhi, says he has stopped eating onions altogether because they are so expensive. Instead he is buying cabbage because he needs to send some savings home to support his parents, wife and two children, he said. "A poor man like me has no voice," said Singh. "The government isn't caring enough about us."

Supply shocks like these complicate the government's task of battling weak growth and inflation. To make matters worse, consumers in India are facing a weakening rupee and the country's slowest economic growth in a decade. The government has to navigate through these issues as it must address inflation while steering away from populist measures such as subsidies on onions.

In response, the government introduced measures such as letting farmers sell onions directly to consumers, banning the exports of locally produced onions and slashing tariffs or taxes on imported onions. The government also tried importing cheaper onions from Pakistan, Iran, Afghanistan and China.

Economist DK Joshi says that short-term measures such as limiting price rises or exports will not solve the real problem. "Inefficiencies in the system [supply chain] cause prices to shoot up," he says, adding that "agricultural produce has not kept up with the demand". Overall consumption is higher

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due to population increases, and as some people enjoy higher incomes, they demand more food, especially more protein-based animal food. There is a need for a training programme for farmers on storage of cash crops and grants to farmers to invest in storage infrastructure and better seeds.

Source: Adapted from various sources

Extract 2: Environmental Impacts Associated with Major Food Crops

In countries like India, agricultural intensification (involving the adoption of modern irrigation, fertilizers, improved seeds, and pesticides) has contributed to dramatic gains in food yields since the 1960s. However, increasing evidence suggests that intensive farming systems, if not properly managed, can cause serious environmental harm by reducing soil fertility, polluting soil and water, depleting groundwater, using large amounts of fossil fuels for water pumping, and contributing to climate change.

Most farmers are reliant upon high rates of synthetic fertilizers and pesticides to maintain yields. Soil nutrient shortages seriously limit production while pests including insects, rodents and disease also significantly reduce yields. Water constraints meanwhile are ubiquitous, accounting for as much as 23% of crop losses, including in irrigated rice and rice-wheat systems.

All agriculture inevitably changes the natural environment. However in many instances, harm to natural ecological systems is either unnecessary (as all or part of the ecosystem could be maintained without significant losses in food output) or outright undesirable (because a wholly or partially intact ecosystem could provide more benefits in terms of local or regional food production than cultivating an extra parcel of marginal cropland). To sustain productive agriculture, these impacts on the environment need to be managed and reduced. Much is now known about a widening array of good management practices to mitigate environmental impacts.

Source: Adapted from http://link.springer.com/article/10.1007/s12571-015-0478

Extract 3: The Groundwater Crisis

India is the largest groundwater user in the world, with an estimated usage of around 230 cubic kilometers per year, more than a quarter of the global total. With more than 60 percent of irrigated agriculture and 85 percent of drinking water supplies dependent on it, groundwater is a vital resource of clean water for both rural and urban areas.

The remarkable expansion of groundwater use is in part due to the poor public water supply systems, prompting many farmers, and rural and urban households, to turn to their own private supply for irrigation and for drinking water. New pump technologies meant that even farmers and households with very modest incomes could afford to sink and operate their own wells. The flexibility and timeliness of groundwater supply presented an attractive alternative to the technically and institutionally less responsive provision of surface water through public systems. Government electricity subsidies have shielded farmers from the full cost of pumping.

This era of seemingly endless reliance on groundwater for both drinking water and irrigation purposes is now approaching its limit as aquifers reach unsustainable levels of exploitation. The potential social and economic consequences are serious. The implications are disturbing for sustaining economic growth and local livelihoods, and for environmental and fiscal sustainability.

The problem extends beyond India as China's construction of dams and the proposed diversion of the Brahmaputra's waters has become another contentious issue undermining Sino-Indian relations. Indo-Pakistan relationship is also volatile due to uncertainties in water talks. Many governments all

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over the world have long debated the best responses to natural conflicts and environmental damage linked to the increasing shortage of groundwater and the issue of polluted water. They have considered the merits of policy measures, including environmental taxation, pollution permits, subsidies for innovation into curtailing usage and subsidies to encourage firms to recycle water.

Source: Adapted http://www-wds.worldbank.org/external/

Questions

(a)	Referring to Figure 1, compare the trend in price of onions to that of onion production in Mumbai from 2009 to 2015.	[2]
(b)	Identify the economic relationship between onions and cabbages.	[1]
(c)	With the help of a demand and supply diagram, account for the "dramatic price rises" of onions in recent months as described in Extract 1.	[5]
(d)	According to Extract 1, the Indian government prefers to slash tariffs or taxes on imported onions rather than provide subsidies on onions. Comment on the advantages of this approach.	[6]
(e)	How far should the Indian government prioritise increase in food production (Extract 1) over consideration for the environment (Extract 2)?	[8]
(f)	Extract 3 mentions various ways in which governments might respond to the groundwater crisis. Evaluate the options available to the Indian government as possible responses to the groundwater crisis.	[8]

[Total: 30m]

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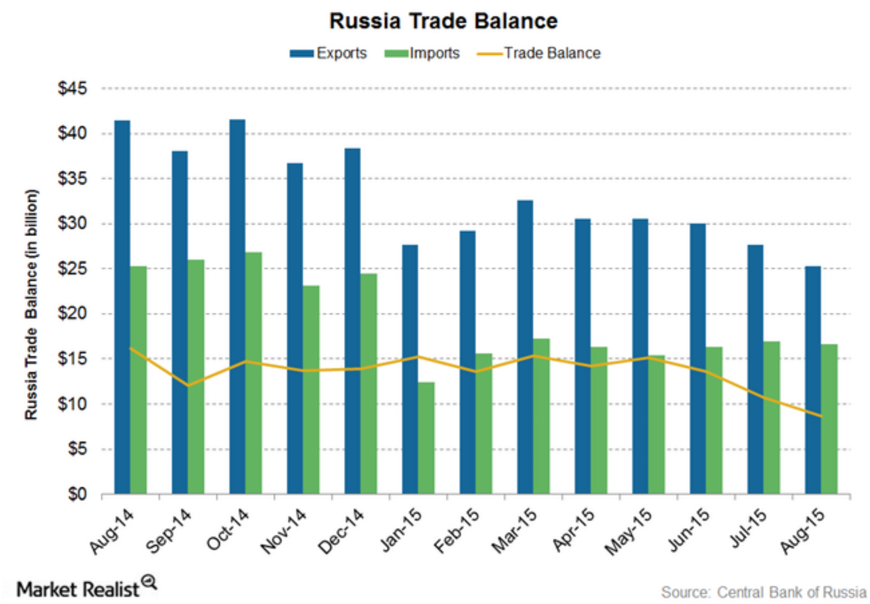
Question 2

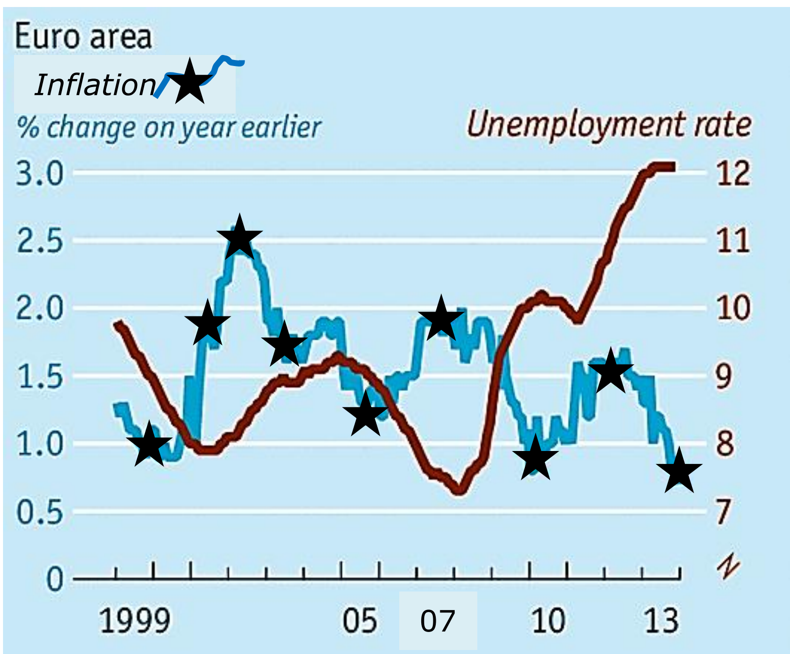
Crude Oil Prices, Trade Sanctions, Russia and The European Union

Figure 2: Russia Trade Balance



Source: http://marketrealist.com/2015/10

Figure 3: Inflation and Unemployment in the Euro Area



Source: http://www.economist.com. Jan 11 2014

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Extract 4: Falling Oil Prices

The main reason why the price of crude oil has fallen in 2014 has been an increase in global supplies. The effects of cheap oil vary from country to country and industrial sector to industrial sector. For instance, Europe is heavily dependent on oil imports. So cheaper oil makes Europeans a lot better off but it's bad news for Russians. A fall in crude oil prices will reduce Russian's export revenue significantly. Cheap oil also tends to weaken the currencies of oil exporters such as Russia. By the same token, this puts upward pressure on the Euro.

An appreciating currency is a concern for the European Central Bank because the Euro area stands on the brink of a recession and outright deflation partly brought about by years of fiscal austerity. Fiscal austerity, which involves a combination of cuts in government spending and increases in tax rates, is imposed on some EU member states like Greece to reduce their government debt so that confidence in the government's ability to repay its debt can be restored which can in turn inspire business-boosting confidence in the long run. Opponents, however, argue that austerity measures depress economic growth, hence these measures may be counterproductive. They are concerned that inflation is now uncomfortably far beneath the target rate set by the European Central Bank (ECB) of below but close to 2% and a further downward push to EU inflation could put the euro area on a deflation path.

Source: Clive Cook, Bloomberg.com Dec 18, 2014 and other sources

Extract 5: What's Gone Wrong with Russia's Economy?

Russia is in the middle of a currency crisis. In December its currency lost 10% of its value, having already lost about 40% this year. The rapid depreciation of the Ruble will affect the buying power of the Russian consumer. Inflation is currently at 10% but is expected to accelerate rapidly. Russians are panic-buying; banks are running out of dollars. Recent data confirm Russia's entry into recession, with GDP growth of -2.2% for the first quarter of 2015, as compared to the first quarter of 2014.

The problems were long in the making. Russia is highly dependent on oil revenues (oil contributes over two-thirds of exports) and over the past decade it has failed to diversify its economy. During 2015, Russia's firms must also repay $100 billion-worth of foreign debt. But as the ruble falls, paying back dollars becomes more difficult. The Kremlin is praying for a resurgence in the oil price because given the widespread use of oil in many industrial activities, an increase in oil price would increase export revenue significantly, but at the moment that seems unlikely.

Source: The Economist 16 Dec 2014

Extract 6: FDI to Russia Slumps

The Chinese lead the roost of Asian companies that have been investing in the Russian economy since the Europeans have stepped back on account of Ukraine-inspired sanctions. At this weekend's G-20 summit in Antalya, Turkey, Vladimir Putin said: "Cooperation with Asian partners in attracting funds gains special relevance in the current situation. Approximately 90 percent of investments in the Russian market came from Asia this year"

Putin can tout Asia, and China, all he wants. FDI into Russia has collapsed over the last several years, based on external sector statistics published by the Russian Central Bank. Russian inward

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bound FDI, including equity, reinvestment, and foreign credit to Russian firms, went from $69.2 billion in 2013 to $22.8 billion in 2014. According to the latest stats on the Bank's website, Russian FDI was just $1.3 billion in the first quarter compared to $12.9 billion in the first quarter of 2014.

Source: http://www.forbes.com/sites/kenrapoza/2015/11/15

Extract 7: Sanctions on Russia after Crimea: Effects on Russia and European Union Nations

When Russia illegally annexed Crimea and started interfering in Eastern Ukraine, the West responded with economic sanctions, restricting exports to Russia. In July 2014, sanctions were enacted in a coordinated manner by the European Union and the United States. The EU sanctions targeted Russia's state finances, energy and arms sectors. These are sectors managed by the powerful elite around President Vladimir Putin. Russian state banks are now excluded from raising long-term loans in the EU, exports of dual-use equipment for military use in Russia are banned, future EU-Russia arms deals are banned and the EU will not export a wide range of oil industry technology. But the gas industry, space technology and nuclear energy are excluded from sanctions.

For the Russian economy, the sanctions are generally assessed to have exacerbated the macroeconomic challenges it was already facing, notably the rapid and pronounced fall in oil prices that started in the last months of 2014. The combined effect of these sanctions and of the fall in oil prices caused significant downward pressure on the value of the Ruble and increased capital flight. At the same time, the sanctions forced Russia to use part of its foreign exchange reserves to shore up government agencies. Russia retaliated by imposing a ban on Western food imports which had a compounding effect on this challenging picture, as it led to higher food prices and hence to further inflation.

Some EU countries will feel the impact more than others. Russia has become a booming market for Western consumer goods in the past decade. Germany has appeared especially reluctant to ratchet up sanctions. That is not surprising, as German exports to Russia totalled 38bn euros (£30bn; $51bn) in 2013 - the highest in the EU. More importantly, Germany gets more than 30% of its oil and gas from Russia. Italy is also highly dependent on Russian energy and some of Russia's former Soviet bloc neighbours rely 100% on its gas deliveries. The EU's trade with Russia - worth nearly 270bn euros in 2012 - dwarfs US-Russia trade. Food exporters of fresh fruit and vegetables, meat and various other foods are already facing losses after Russia announced an immediate embargo on a wide range of food imported from the EU. The ban will last at least a year.

However, Russia's importance as a destination market is quite limited for most European countries and, more importantly still, European businesses have been able to find new markets for their products, both within Europe and beyond. These new markets have more than compensated for the falls in exports to Russia.

Source: adapted from http://www.nato.int/docu/Review/2015 and http://www.bbc.com/news/world-europe-28400218

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Questions

(a) **(i)** With reference to Figure 2, describe the trend in Russia's trade balance between August 2014 and August 2015. [2]

(ii) Explain why a "fall in crude oil prices will reduce Russian's export revenue significantly" (Extract 4). [2]

(b) Explain one possible effect of a weaker Ruble on "the buying power of the Russian consumer" (Extract 5). [2]

(c) According to Extract 6, "FDI into Russia has collapsed over the last few years". [6]

With the aid of an AD/AS diagram, explain the likely impact of a slump in inward foreign direct investment (FDI) on Russia's macroeconomic performance in both the short run and the long run.

(d) **(i)** With reference to Figure 3, describe the trend in EU general price level between 2007 and 2013. [2]

(ii) Explain why there might be a cause for concern if inflation falls beneath the target rate set by the European Central Bank (Figure 3 and Extract 4). [2]

(e) To what extent will economic sanctions on Russia hurt EU member states? [6]

(f) Discuss whether Russia should consider reducing its interest rates to solve its macroeconomic problems. [8]

[Total:30]

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[Turn over]

Section B

Answer **one** question from this section.

3 The 2013 transboundary haze in Singapore costs the economy US$1 billion a week. The Singapore government decided to fine oil palm plantation owners and paper pulp companies causing pollution. The government has also issued advisories on the use of N95 masks.

(a) Explain why the government needs to intervene in the following markets: **[10]**

i) Oil palm or paper pulp market;

ii) N95 masks market.

(b) Discuss which policies are likely to be appropriate in reducing air pollution in Singapore. **[15]**

4 Brexit may be part of the first wave of anti-globalisation. The message from Brexit and similar movements is clear: economic growth may have to take a back seat while political leaders work to address the anger of those who believe that globalisation has left them behind. Many countries are considering adopting anti-globalisation measures such as import tariffs, tighter rules governing inward foreign direct investment and stricter immigration policies.

Source: https://www.theguardian.com/commentisfree/2016/jul/28

(a) Explain how countries can benefit from specialization and trade. **[10]**

(b) Discuss whether there is room for anti-globalisation measures to be adopted to manage the challenges of globalisation. **[15]**

[Total:25]

Copyright Acknowledgements:

Question 1	Figure 1	© *Estimates from Indian Government Data*
Question 1	*Extract 1*	© *Adapted from Various sources*
Question 1	*Extract 2*	© *Adapted from Springer Link*
Question 1	*Extract 3*	© *Adapted from The World Bank*
Question 2	*Figure 2*	© *Market Realist*
Question 2	*Figure 3*	© *The Economist*
Question 2	*Extract 4*	© *The Bloomberg*
Question 2	*Extract 5*	© *The Economist*
Question 2	*Extract 6*	© *The Forbes*
Question 2	*Extract 7*	© *The Nato and the BBC*

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