RAFFLES INSTITUTION 2018
YEAR 6 PRELIMARY EXAMINATION
Higher 1

ECONOMICS

8823/1

Paper 1

28 August 2018

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

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.

At the end of the examination, fasten answer script for question 1 and 2 separately.
Securely fasten cover sheets to each answer script.

The number of marks is given in brackets [ ] at the end of each part question.

Name: ________________________ ( )

Civics Class: ____________________

Economics Tutor: ____________________

Marks	
Q1	

This document consists of **9** printed pages.

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Answer all questions

Question 1: The Food Industry

Table 1: Madagascan exports of vanilla to the US

	Price of Vanilla (USD$/kg)	Volume (kg)
2007	19	1,650,000
2008	21.5	1,300,000
2009	23	-
2010	21	-
2011	21	-

Source: Datamyne

Extract 1: Background knowledge of vanilla

Vanilla is an essential ingredient used in sweets, food, alcohol, as well as scented perfumes and cosmetics. It is a difficult spice to cultivate, extracted from the delicate vanilla orchid flower. A vine takes three to four years to mature. Harvest in Madagascar, the main exporter in the world, is from May to August, after the rainy season has brought the usual cyclones. Thus, one of the world's most popular spices, vanilla is the second most expensive spice in the world. Today, vanilla represents 20% of Madagascan exports, worth $600m at current prices and is a significant contributor to the country's GDP.

Madagascar's vanilla policy since independence is in many ways typical of a pattern common to low income countries. Throughout history, the vanilla market had been marred by price instability and low incomes. Right after independence in 1960, the Government of Madagascar intervened in a bid to bring more stability and equity in the distribution of the gains from vanilla farming. A vanilla stabilisation fund was created and a fixed price was guaranteed. The government intervened in the market to stabilise the price of vanilla through a buyback programme that ensured the surplus stocks during good harvests were purchased and kept as inventory while releasing stock during poor harvests. Price fixing succeeded in keeping the price stabilised and high and brought about positive results for the farmers for a limited period. However, in the end, declining revenues meant that the cost of keeping exploding inventories (as the country's high prices discouraged demand) escalated beyond what could be financed. Three quarters of the stock of inventories, which by 1990 exceeded four years' worth of export under good times, were ultimately burnt, an extraordinary waste given the high unit value of vanilla and the extreme poverty of the farmers whose output was thus destroyed.

Madagascar's agriculture performance after independence has been insufficient to cope with demographic pressures, characterised by low productivity and high vulnerability to climatic conditions. In addition, several periods of civil unrest and political uncertainties have disrupted the economy and made investment scarce. The emphasis on the agriculture sector – dominated by vanilla crops – has resulted in major threats such as deforestation and soil erosion, and this, together with the lack of investments in new farming practices and diversification to other crops, had in turn compromised the productivity levels in farming. Subsequently, structural market reforms were introduced and government intervention in the vanilla market stopped in 1995.

Source: Adapted from various sources

Extract 2: Soaring vanilla prices cause ice cream makers to struggle

Your artisanal vanilla ice cream is under threat. Vanilla prices have rocketed to a record peak of $600 a kilo, 30 times more for the ingredient than what artisanal ice cream maker Ruby Violet have paid for in the past. A cyclone in March 2017 destroyed a number of vanilla plantations and dented supplies from Madagascar. The storm accelerated an upswing caused by food manufacturers promising to use real vanilla rather than synthetic flavourings, while speculative hoarding by traders in Madagascar also raised prices. Vanilla pod producers are now frantically planting more, but it could be several years before harvesting can take place and prices subside to historical norms.

Source: https://moneyweek.com/chart-of-the-week-vanilla-could-soon-be-off-the-menu/

Extract 3: Healthy ice cream

Imagine a world where ice-cream was healthy. One researcher at the University of Copenhagen is close to replacing saturated fat with unsaturated fat in our favourite summer treat. Saturated fat - abundant in ice-cream - raises cholesterol, which is linked to heart disease and strokes.

But when researcher Merete Munk perfects her newest creation, these health issues will no longer be associated with ice-cream. According to Munk, her goal is to make ice-cream with unsaturated fats. Once Munk is successful in switching out saturated fats in ice cream both you and the earth will be grateful. Currently saturated fats, like those found in palm oil, have to be shipped from the tropics - and the environmental harm of producing palm oil, including the burning of large tropical forests, destruction of habitat for endangered species and releasing carbon emissions into the environment is well-known. With Munk’s ice-cream, manufacturers would be able to choose oil grown locally, meaning more options for them and less harmful effects on the environment. And ice-cream you can eat guilt-free.

Source: Adapted from https://www.independent.co.uk/life-style/

Extract 4: Tax sugary drinks by 20%, say doctors

The British Medical Association (BMA) has published a new report lobbying for a new 20% tax on high-sugar foods and drinks. It estimates poor diets are causing around 70,000 premature deaths each year and it want the extra tax revenue raised and used to subsidise fresh fruit and vegetables. A recent study found that poor health and obesity costs the UK economy at least £21.5bn a year. The current World Health Organisation guidelines recommend no more than seven teaspoons of added sugar (30g) a day. A single teaspoon of sugar is roughly 4g.

Dr Shree Datta, from the British Medical Association, told the BBC: "We're looking at 30% of the UK population being obese by the year 2030, a large extent of that is due to the amount of sugar we're actually consuming without realising. The biggest problem is a lot of us are unaware of the amount of sugar we are consuming on a day-to-day basis."

Speaking to the BBC, public health minister Anne Milton insisted that taxation was not the key to solving the issue and that an element of "personal responsibility" was necessary. She said the UK had a "major problem" with obesity, citing better education and working with the food industry as key parts of the government's anti-obesity strategy.

Source: Adapted, BBC, 13 July 2015

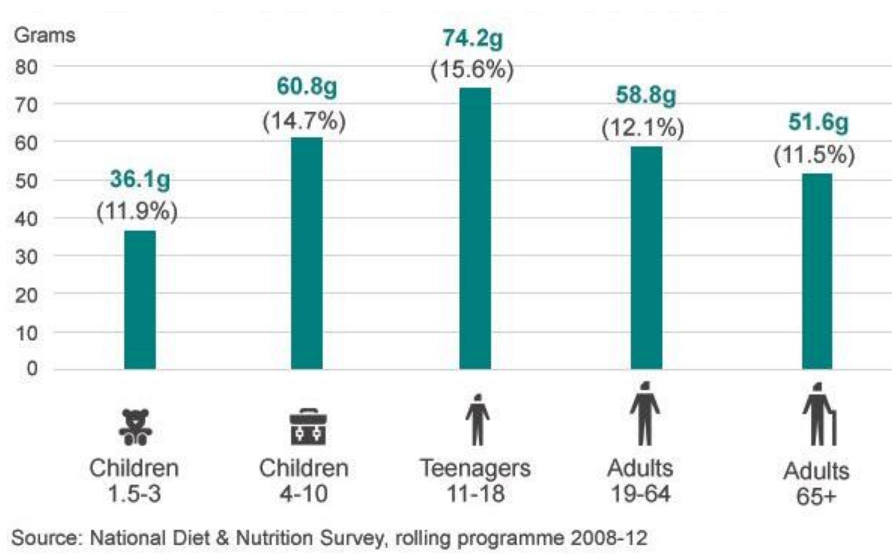
Extract 5: Body blow for butter-loving Danes as "fat tax" kicks in

The government in Denmark has introduced additional taxes on foods which contain more than 2.5% of saturated fat. The Danish government felt that fatty foods are demerit goods, and the tax will change the behaviour of consumers in the long term. Some Danes are sceptical. They question whether purchases of such foods will remain largely unchanged and are of the opinion that this government policy will fail. Moreover, this type of indirect tax is regressive, hitting lower income groups the hardest. In the short run, this tax rise might nudge the Danish inflation rate upwards from 2.9%. Over time, it may also alter the behaviour of producers, changing the mix of fats in their ranges of processed foods. It remains to be seen whether the measure by itself will impress upon the Danes the merits of a 'healthy' diet, or will it also require additional state intervention by way of government advertising, or regulations to change food labelling.

Source: Adapted from various sources

Figure 1: Daily added sugar intake, by age groups, UK.

Percentage of daily food energy from added sugars shown in brackets



Questions

(a) With reference to Table 1:

(i) Describe the trend in the price of Madagascan vanilla between the period 2007 to 2011. **[2]**

(ii) Using data from 2007 and 2008, calculate the price elasticity of demand for vanilla and explain how it is possible to estimate the income of vanilla farmers in 2009. Comment on the accuracy of your estimate. **[6]**

(b) Extract 1 states that the Madagascar government "intervened in the market to stabilise the price of vanilla through a buyback programme….".

(i) Using a diagram, analyse how the Madagascar government can stabilise the price of vanilla and comment on why this scheme was successful only for a limited period. **[8]**

(ii) Analyse **two** possible macroeconomic consequences of a severe fall in the price of vanilla for Madagascar. **[4]**

(c) **(i)** With reference to Extract 2 and the help of a diagram, explain why the price of vanilla have soared in 2017. **[6]**

(ii) Explain how the above situation will affect the market for artisanal vanilla ice cream. **[3]**

(d) **(i)** Using examples, distinguish between a demerit good and a good that generates negative externalities. **[4]**

(ii) Discuss whether a "fat tax" is the most appropriate measure to solve the problem of obesity caused by the consumption of sugary and fatty food. **[12]**

[Total 45m]

Question 2: Economic Performance of Three Economies

Table 2: Unemployment rate (% total of labour force)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
France	7.1	8.7	8.9	8.8	9.4	9.9	10.3	10.4	10.1
Greece	7.8	9.6	12.7	17.9	24.4	27.5	26.5	24.9	23.1
Singapore	4.0	5.9	4.2	3.9	3.7	3.9	3.7	3.8	4.0

Source: Worldbank

Table 3: GDP (% annual)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
France	0.2	-2.9	1.9	2.1	0.2	0.6	0.9	1.1	1.2
Greece	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.7	-0.3	-0.2
Singapore	1.8	-0.6	15.2	6.4	4.1	5.1	3.9	2.2	2.4

Source: Worldbank

Table 4: Inflation* (% annual)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
France	2.4	0.1	1.1	1.1	1.3	0.8	0.6	1.2	1.2
Greece	4.3	2.6	0.7	0.8	-0.4	-2.4	-1.8	-1.0	-0.9
Singapore	6.8	0.6	2.8	5.3	4.5	2.4	1.0	-0.5	-0.5

*France and Greece being members of the Eurozone faces an inflation rate target of 2%

Source: Worldbank

Extract 6: As France's economy takes off, a new problem: labour shortages

Business is booming for Ms Guinard, who runs French machine manufacturer Thimonnier. The problem is, she can't find enough staff. Labour shortages are emblematic of the wider French manufacturing industry where a strong economic rebound is outpacing the capacity of workforces. Labour shortages come despite a stubbornly high unemployment rate that has not dropped below 9 per cent for six years.

More than a third of French manufacturing companies are operating at full capacity, with 40 per cent report difficulties recruiting workers. Wage pressures are building and many employers are resigned to having to raise salaries at some point. "There's a real skills deficit because many young people have turned their back on the industrial sector and high youth unemployment is a problem in France," said Ms Guinard. Companies are afraid to commit to permanent hiring when economic growth is stagnant and cost of providing employees benefits are so high, and the educational system tends to value liberal arts over technical or industrial expertise. They "often don't learn the skills that employers need," she said. Young workers face an additional constraint, they are more likely than adults to earn a minimum wage since they are often low skilled. It is therefore important that the minimum wage is not too high relative to the average wages in the economy, which risks pricing such workers out of the labour market.

The reason for the simultaneous high unemployment and lack of workers is a massive skills mismatch. France simply does not produce enough of the skilled workers it now needs. That means that even as the country is enjoying its strongest growth in six years, the lack of skilled workers is creating production bottlenecks and snarling up supply chains. That in turn is potentially capping how fast the economy can grow. However, a positive development is that firms are increasingly forced to automate and shift towards more capital-intensive production to mitigate the effects of the current labour shortfall and the significant wage pressures.

Even though companies are hiring at record levels, the vast pool of unskilled labour means the unemployment rate will not fall below 8 percent without sweeping labour market reforms, according to the central bank and the International Monetary Fund. Lowering the opportunity cost of work by reducing overly generous unemployment benefits can also increase work incentives.

Source: Adapted from Reuters & NY Times 2017

Extract 7: Greek unemployment rises to 23.1%

Greece remains the major exception to the eurozone’s wider recovery in growth and unemployment, suffering a slight rise in its double-digit jobless rate at the end of 2016. The country’s unemployment rate ended the year at 23.1 per cent in December, revised up to that level from 23 per cent in November – the highest in the eurozone. Greece’s labour market seems immune to the broader improvements in jobs growth seen elsewhere in Europe where average unemployment has now fallen to a four-year low of 9.8 per cent. Greece’s situation is made more dire by the relentless rise in the euro due to Eurozone economic recovery. The economic slump is likely to support the left-wing Syriza government’s claims that imposing more austerity measures of cutting government spending and increasing taxes – a demand it accuses the International Monetary Fund of – will only hamper the beleaguered economy. The past seven years of crushing austerity and recession have caused rocketing levels of youth unemployment, According to the Organisation for Economic Co-operation and Development (OECD), unemployment among 18 to 24-year-olds reached 47.4 per cent at the end of last year. Overall, more than one in five Greeks were unemployed.

Source: Adapted from Financial Times & Independent.co.uk 2017

Extract 8: Technological disruption may push up unemployment rate

Singapore's unemployment rate - which now stands at 2.1 per cent - has for decades been low by international standards. But it might be on track to rise in the face of unrelenting technological change that leaves old skills outmoded. The ones relevant to new realities may take a while to acquire.

In the short run, the slowing economy will remain a key contributor to downbeat labour market sentiment. Data out yesterday showed that total employment fell for the second time since the 2009 global financial crisis. With "subdued global economic conditions and internal economic restructuring", more workers were affected than the 3,460 who lost their jobs in the third quarter a year ago, said the Ministry of Manpower. The cloudy outlook could lead to further monetary policy easing, after the Monetary Authority of Singapore (MAS) last month unexpectedly eased the Singapore dollar against the currencies of its major trading partners, as growth in the first quarter stalled.

Beyond the current downturn, however, some structural challenges will persist for a longer time - including the gulf between the skills workers have and the ones that employers want.

Disruptive change has hit almost every industry, and jobs are evolving faster than ever. In addition, the Singapore economy is increasingly moving towards higher value-added, niche sectors - such as medical technology and data analytics - in a bid to maintain its competitive edge. These provide good jobs, but require specialised skills that most retrenched PMETs (Professionals, Managers, Executives and Technicians) do not have. These industries also offer fewer jobs, given their small, specialised nature. This means Singapore might have to get used to a higher rate of unemployment.

To adapt, workers should keep a lookout for opportunities to deepen and extend their own skills, said SIM University economist Walter Theseira. "It is going to be very hard for the Government or employers to force workers down a particular skills pathway, because everyone has different abilities and it won't work if you force people to take up training that they are not interested in or unsuited for." Dr Theseira suggested that policymakers aim to ease this "adjustment burden" by subsidising wage costs on top of the existing skills upgrading and training subsidies. "I would also look into rewarding employers who do actually show willingness to take on middle-aged and older PMETs, because our economy needs the contributions from our mature workers. "We can't afford to have persistent long-term unemployment of our skilled workers," he added.

Source: Straitstimes.com, 2016

Questions

(a) **(i)** Compare the unemployment rate for France, Greece and Singapore over the period 2011 to 2016. **[3]**

(ii) Identify and explain which economy in Table 3 shows the greatest variation in its growth rate. **[2]**

(b) Comment on the relationship between the unemployment rate and inflation rate for Singapore between 2009 to 2012. **[2]**

(c) With the aid of a diagram, analyse what has happened to the overall labour market in France between 2016 and 2017. **[5]**

(d) Extract 7 claims that austerity measures in Greece "will only hamper the beleaguered economy".

Explain this claim, and comment on whether it is valid. **[8]**

(e) All governments aim for a low and stable inflation rate. However, from 2012 to 2016, all three economies have changing general level of prices.

Explain why a government aims for a low and stable inflation rate. Identify the country with the most serious problem with price stability and justify your choice. **[9]**

(f) Extract 8 states that "the Monetary Authority of Singapore (MAS) last month unexpectedly eased the Singapore dollar against the currencies of its major trading partners."

Using a diagram, explain how MAS can ease the Singapore dollar against the currencies of its major trading partners. **[4]**

(g) Using evidence from the case study and your own knowledge, evaluate the policies that the France and Singapore government can adopt to address the unemployment problems in their respective economies. **[12]**

[Total 45m]

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