

ATTENDANCE FORM

ECO100

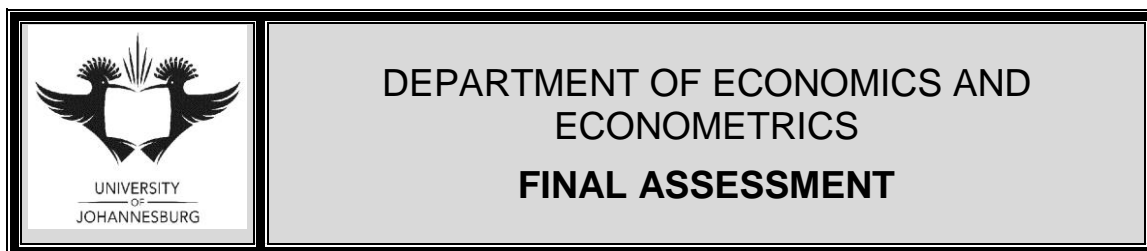
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GENERAL INSTRUCTIONS

1. Do not remove the staple – hand this paper in as a whole.
2. Remove only the top page (this page), and hand it in together with this paper at the end of the session.
3. Make sure that your paper has 13 numbered pages.

EXAM 2/6/2016

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Course: Economics 100
Date: 2 June 2016
Marks: 100
Time: 2 hours
Assessors: Prof G van Zyl, Prof L Greyling
Moderator: Dr P Bauer

1. The paper consists of four questions. The paper has 13 numbered pages.
2. Noiseless calculators may be used.
3. Answer all the questions in pen. No answers in pencils will be remarked.

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	Marks	Total			Marks	Total
MC		10		Q4.1		8
				4.2		7
				4.3		6
				4.4		2
				4.5		7
Q1.1		4				
1.2		10				
1.3		6				
Q2.1		15				
2.2		5				
Q3.1		4				
3.2		4				
3.3		4				
3.4		6				
3.5		2				
		TOTAL			/100	

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MULTIPLE CHOICE QUESTIONS

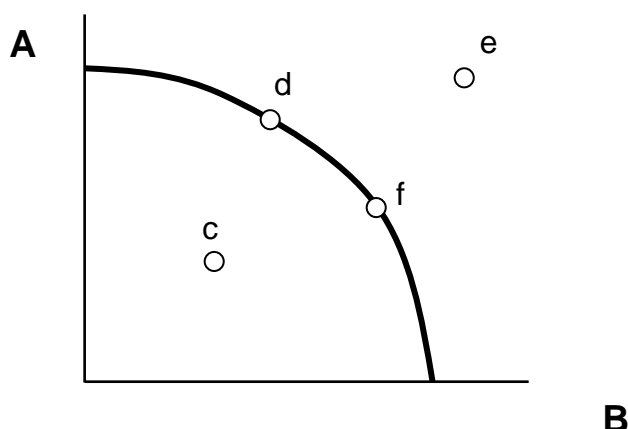
[10]

1. Which one of the following statements that deal with economic subjects, production factors and opportunity costs is **not** an accurate description?
 - a) An economy consists of economic subjects with needs and the resources available to satisfy such needs.
 - b) Making everyone in the world as wealthy as those in the wealthiest economies is not feasible given the current level of resources and technology available on the planet.
 - c) The scarcity of labor, capital, natural resources and entrepreneurship force economic subjects to make choices.
 - d) Within the context of available incomes and options, the best choice is the one that carries the highest opportunity cost – since this implies that it is the most valuable.
 - e) The trade-offs that accompany choices can be measured by opportunity costs.

2. Which one of the following statements that deal with the concepts of scarcity, allocative, production & distribution efficiency and economic systems is **not** an accurate description of these concepts?
 - a) The challenges of scarcity and choice give rise to the problems of allocation, production and distribution.
 - b) The problems of allocation, production and distribution can be solved using tradition, central planning, markets, or some combination of these different economic systems.
 - c) The allocation issue relates to how goods and services in a society are allocated to different individuals and groups.
 - d) The primary function of government in a market economy is to ensure that sufficient competition exist so that firms and individuals will make socially desirable decisions.
 - e) In most modern mixed economies, the government plays a very important role.

3. Which of the following are advantages of specialisation?
 - 1) Skills are used in the most efficient manner;
 - 2) Time is saved because people do not have to switch from one job to another;
 - 3) The total output of the economy increases;
 - 4) Standard of living of people is raised;
 - 5) Productivity increases.
 - a) 1, 2 and 5
 - b) 1, 3, 4 and 5
 - c) 1, 2, 3, 4 and 5
 - d) 3, 4 and 5
 - e) 1, 3 and 5

Question 4 is based on the following production possibilities curve



4. Assume an improvement in the technology (due to a new invention) with which good A is produced, ceteris paribus. The production possibility curve:
- Will still remain a concave curve due to decreasing opportunity cost;
 - Move upwards thus indicating an increase in both the vertical and horizontal-axis;
 - Show an increase in the vertical intercept, ceteris paribus;
 - Show a decrease in both intercepts;
 - Will show an increase in the vertical-intercept, ceteris paribus.
5. When it is said that South Africa is an “open” economy, which of the following does this phrase mean?
- Sanctions are not applicable;
 - Foreign trade takes place;
 - Products are imported without controls;
 - Production makes use of modern technology;
 - The economy is a mixed economy.

MC - Answer Sheet

5x2 = 10

	Options				
Question	[a]	[b]	[c]	[d]	[e]
1					
2					
3					
4					
5					

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Question 1: Economic concepts

[20]

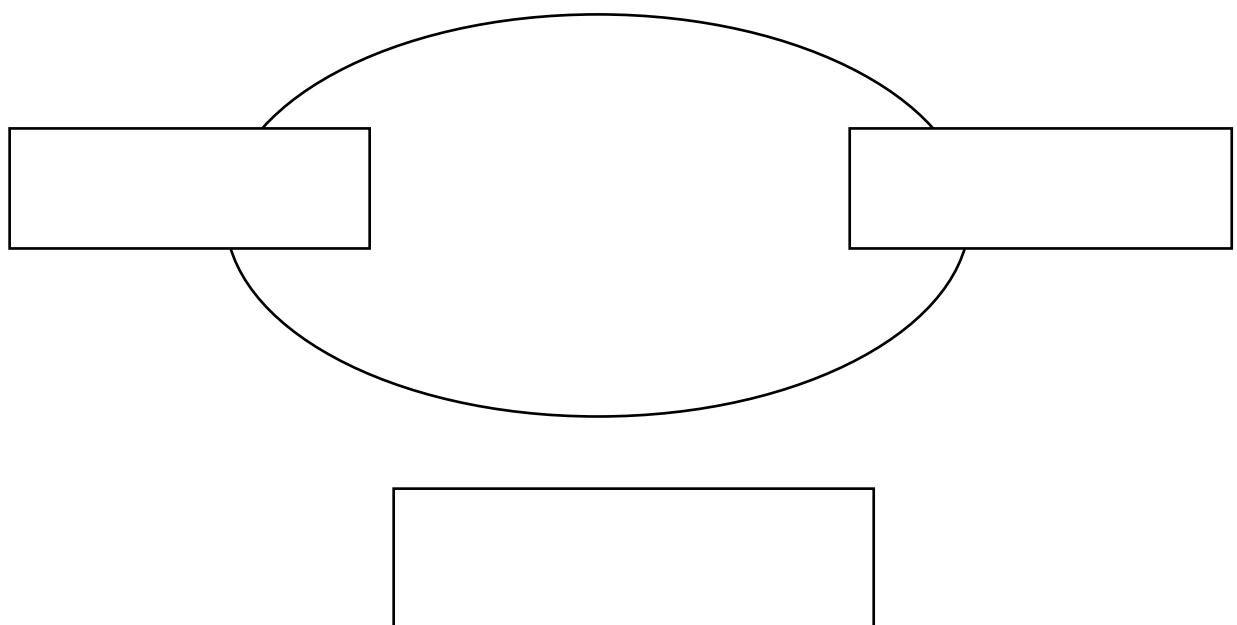
1.1 It is generally argued that both monetary and fiscal policy in South Africa has been relatively restrictive over the past 12 months. Explain why this is the case by referring to interest rates, money supply, public spending and taxes. (4)

Restrictive monetary policy

Restrictive fiscal policy

1.2 Construct a circular flow of income and expenditure and using the flow model explain the impact of a decrease in fixed domestic investment on the performance of the economy. (10)
(Construction of model = 6 marks and explanation = 5 marks)

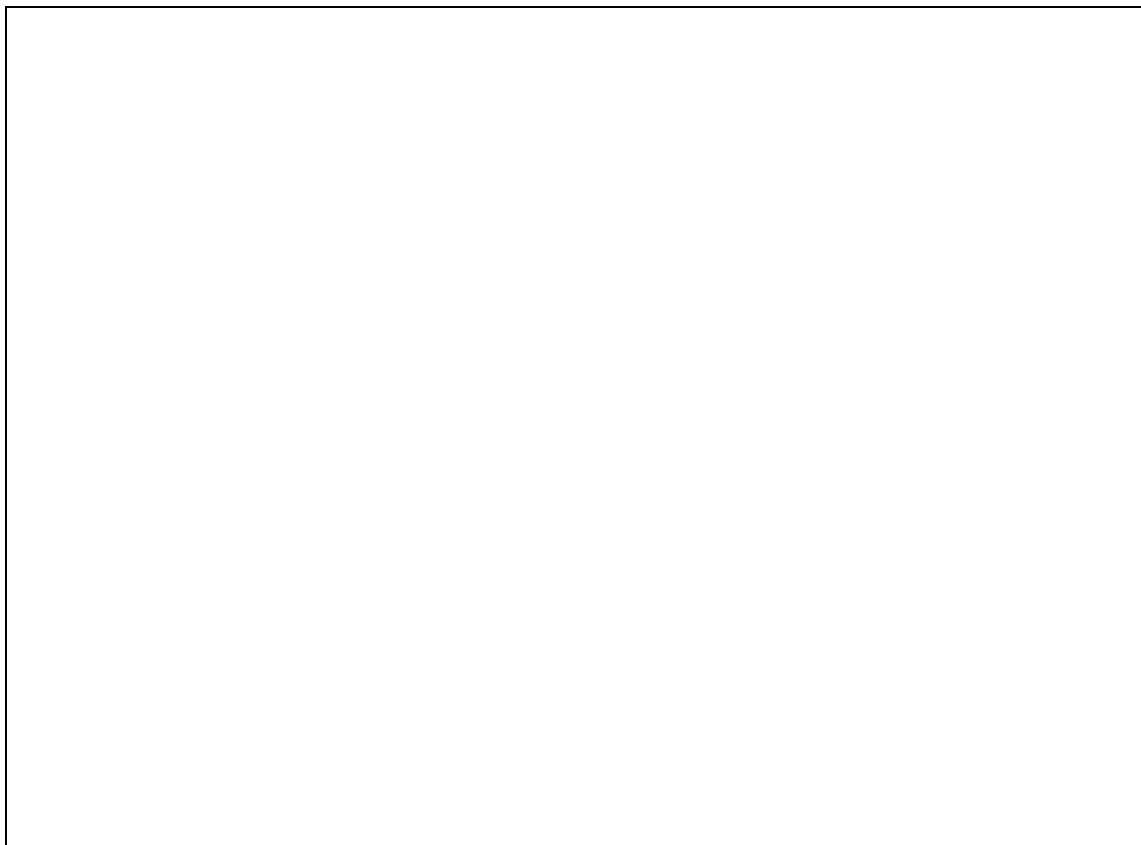
Model:



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Explanation:

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1.3 Indicate what the effect would be on each of the components listed if the SARB persist with its restrictive monetary stance especially when the interest rate (repo rate) increases. Assume that this action is the only thing affecting the economy. Indicate by circling the appropriate part of every block on the diagram below as shown below. (6)

Interest rates	→	Real investment	→	Employment
Increase		Increase		Increase
Decrease		Decrease		Decrease
Unchanged		Unchanged		Unchanged
				↓
Supply of money	←	Imports	←	Incomes
Increase		Increase		Increase
Decrease		Decrease		Decrease
Unchanged		Unchanged		Unchanged
				↓
Interest rates		←		Demand for money
Increase				Increase
Decrease				Decrease
Unchanged				Unchanged

Question 2: Measuring the economy

[20]

2.1 You are given the following information for a hypothetical economy in 2015:

(15)

	Rm
Production in the tertiary sector	1 526 906
Production in the primary sector	257 629
Production in the secondary sector	582 581
GDP at market prices	2 502 719
Expenditure by Government	562 818
Gross capital formation	452 733
Taxes on production	41 730
Subsidies on production	9 299
Taxes on products	258 991
Subsidies on products	5 477
Net operating surplus	803 844
Consumption of fixed capital	376 755
Exports of goods and services	684 884
Imports of goods and services	707 855
Gross national income at market prices	2 595 793
Change in net gold and other foreign reserves	19 752

	Index/Indeks
CPI	125
	Million/Miljoen
Total population	55

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Economically active population	35
People without a job for more than 7 days who are willing to start work within the next week	15
People without a job for more than 7 days who are willing to start work within the next week and have actively looked for a job in the last month	10

The following information is given for the same economy in 2014:

CPI	120
Nominal GDP according to the production method (Rm)	2 188 330
Total population (million)	53

Calculate the following economic indicators for the country in 2015:

1	Nominal GDP according to the production method (at basic prices)	
2	Nominal GDP (Gross value added) at factor cost	
3	Compensation of employees	
4	Consumption expenditure by households	
5	Gross domestic expenditure	
6	Population growth rate	
7	Inflation	
8	Expanded unemployment rate	
9	Primary income to the rest of the world	
10	Current account of BOP deficit/surplus	
11	Balance on financial account of the balance of payments	
12	Real GDP at market prices	
13	Economic growth rate (Use production method)	
14	Real GDP per capita (Use Expenditure method)	
15	Trade openness as percentage of GDP@market prices ($X + Z / \text{GDP}$)	

- 2.2** Economic commentators are concerned about the fact that the South African economy is moving closer to a recession. The table below indicates South Africa's macroeconomic objectives and indicators. Complete the table select from the available options what South Africa's performance is in 2015.

(5)

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Macroeconomic Goal	Indicator used to monitor progress in achieving goal	South Africa's performance in 2015 (Select 1 option)	
	Gini coefficient	Less than 0.2	
		Between 0.3 and 0.5	
		Above 0.5	
High & sustained economic growth		Less than 1%	
		Between 1 and 2%	
		Between 2 and 3%	
		More than 3%	
	CPI	Less than 4%	
		Between 4 and 6%	
		Above 6%	
High employment		Less than 22% (Official definition)	
		Between 22 and 25% (Official definition)	
		Above 25% (Official definition)	
Balance of payments stability		Current account deficit	
		Current account surplus	
		Financial account deficit	
		Financial account surplus	

Question 3: Business cycles

[20]

3.1 Economic commentators are of the opinion that the only way that the South African economy can move into a recovery phase is if foreign direct investment increases dramatically. How would you describe the stylized facts of a recovery phase in terms of incomes, unemployment, inflation, current account of the balance of payments and the economic growth rate? (4)

Incomes

Unemployment

Inflation

Current account

Economic growth

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3.2 Briefly explain the policy responses if the economy is moving into a recovery phase. (4)

3.3 What would the nature of the following economic indicators be during a recovery phase? (4)

Real investment in machinery & equipment.	
JSE All Share index.	
Capacity utilization.	
Household debt relative to income.	

3.4 Briefly explain what a positive yield gap indicates (either with the aid of a figure or an example) and indicate the nature of a yield curve during an economic boom phase, an economic slump, a recession and an economic recovery phase. (6)

Figure or an example:

Boom:

Slump:

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Recession:

Recovery:

3.5 Explain briefly what firms should do in terms of pricing and human resources if the economy is in a recovery phase. (2)

Pricing	
Human resources	

Question 4: Microeconomic environment

[30]

4.1 The demand for product A is $P = 80 - 2.5Q$.

Indicate/derive the following:

(8)

Task	Answer
The quantity-intercept if demand should increase by 10%.	
The marginal revenue equation. Assume the original demand equation.	
The price if total revenue is to be maximised. Assume the original demand equation.	
Assume that the current price is less than the total revenue maximising price. What will happen to total revenue if the current price increases to just below the total revenue maximising price. Assume the original demand equation.	
Assume that the income elasticity coefficient for product A's customers is +0.18. How would the customers view product A.	
The cross-price elasticity coefficient for products A and B is -1.25. What is the relationship between products A and B? Also comment on the strength of this relationship.	
The cross-price elasticity coefficient for products A and C is +1.78. What is the relationship between products A and C? Also comment on the strength of this relationship.	
Assume that the producers of product A spend a large amount on advertising. The advertising elasticity coefficient is +2.51. Comment on the relationship (and the strength thereof) between advertising and sales of product A.	

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4.2 Answer the following questions.

(7)

Assume that the leasing-rate for a particular machine is R32 000 per annum and the sum of the interest cost and depreciation is R29 000 per annum. Should the firm buy or lease the machinery?	
What will happen to net present value if you decrease the discount rate?	
A firm is contemplating to employ additional labour. Assume that the predicted sales revenue to be generated by these additional labourers is R5000 per month. The cost of these additional labourers is R5200 per month. Should the firm employ these additional labourers?	
Assume that the % capital/labour ratio change is -2% and the % marginal efficiency ratio change is -0.8%. What is the elasticity of substitution?	
Assume that the elasticity of substitution is equal to zero. What is the relationship between the inputs?	
Assume that a 8% increase in the input base results into a 6% increase in output. What kind of returns to scale are we experiencing?	
Assume that the price of labour is R600 per hour and the average labour efficiency is 30 units per hour. What is the average variable cost per hour?	

4.3 Proof with the aid of fully annotated figures (and a brief explanation) that an increase in average input efficiency would result in lower average variable cost but that a decrease in average input efficiency would result in higher average variable cost.

(6)

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4.4 Explain briefly how the four-firm concentration ratio is used in order to determine the level of competition in markets. (2)

4.5 Your firm is operating in an **oligopolistic industry**. Explain what this kind of industry entails. (7)

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