Tutorial Letter 103/3/2018

Macroeconomics

ECS2602

Semesters 1 & 2

Department of Economics

Examination information

How to answer macroeconomics questions

Comments on the Oct/Nov 2015 examination paper

Comments on the Oct/Nov 2017 examination paper

BARCODE

Dear Student

The purpose of this tutorial letter is to help you prepare for the examination. Please read it carefully.

1. STRUCTURE OF THE MAY/JUNE and OCTOBER/NOVEMBER 2018 EXAMINATION PAPER

The structure of the examination paper for May/June and Oct/Nov 2018 is as follows:

It is a two-hour paper and consists of 2 sections (A and B) making up a total of 100 marks.

In **section A** you must answer all the questions. You will be asked to explain certain concepts and relationships, paragraphs and short essay type questions with explanations (with or without diagrams) which are based on the content of the whole module.

The total number of marks for this section is 25 marks x 2 = 50 marks. Please note that it differs from the previous examination papers (e.g. May 2017) where section A counted 50 marks (50 marks x 1 = 50).

Make sure that you read the questions carefully. If the question requires you to use a diagram, draw it neatly and large enough so that any descriptions are legible. Your explanation must then be based on the diagram. In the workbook, you will find examples of essay-type questions, which ask you to explain or compare something.

When preparing for the examination keep in mind that, the focus of the module is on the impact of fiscal and monetary policy on the level of output and income in the different models. In other words, it will be expected of you to explain and compare the impact of fiscal and monetary policy on the level of output and income using the goods market model (fiscal policy only), financial market model (monetary policy only), the IS-LM model, the IS-LM model for an open economy and the AS-AD model.

Examples of these kinds of questions can be found in the study guide and the workbook (TL102).

Section B consists of 25 multiple-choice questions for 50 marks (25 marks x 2 = 50 marks), based on the content of the whole module. Examples of multiple-choice questions appear throughout the workbook, the assignments and in previous examination papers. Please note that it differs from the previous examination papers (e.g. May 2017) where section B consisted of 20 multiple-choice questions for 50.

2. PREPARATION FOR THE EXAMINATION

The best advice we can give you is to start early and not to wait until the last moment before you start preparing for the examination.

We suggest the following strategy:

a. Approach each study unit in the study guide as follows: First read the study unit outcomes which will help you to focus on the important aspects and issues in that unit. Then work/study through **each** section of the study guide! Refer to the textbook if you do not understand the explanation in the study guide or if there is a reference in the study guide to specific diagrams.

b. It is important that you work through **all** the activities provided in TL102 (workbook). **DO the activities at the end of each section and check your answers against the solutions provided in TL102**.

c. You will see that the activities test your understanding of the content and cover a range of the different types of questions that will be examined. You should also check your answers against the solutions provided and repeat the content in the study guide and redo the activity if you do not understand specific content. If you are not clear on certain concepts or theories, revise them before proceeding to the next section or study unit.

d. To help you with your preparation for the examination we have included a checklist in the workbook after each unit (TL102).

The checklist indicates what you should be able to do. There are different categories, such as **concepts**, **relationships**, **diagrams**, **policy** and **application**. These categories should give you an indication of possible categories of questions you can expect in the examination.

Let us see, in terms of the checklist, what the above means: In the checklist for the goods market (learning unit 2) the **concepts** you must be able to explain are listed.

In the examination, we may test your ability to explain these concepts by asking you to explain a concept in writing or by asking a multiple-choice question.

Under the category of **relationships,** you must be able to explain certain relationships using words, equations and/or a chain of events. In the examination, your ability to explain these relationships may be tested in short questions and/or multiple-choice questions.

Under the category **diagrams,** you must be able to present and explain certain things with the aid of diagrams. In the examination, your ability to do so may be tested in short questions, multiple-choice questions and/or short essay questions.

The category **policy** lends itself to essay-type questions. **The focus of this module is on the impact of fiscal and monetary policy on the level of output and income in the different models.** You can therefore expect a number of essay questions on this topic. In answering an essay question you should, where applicable, make use of words, equations, chains of events and diagrams.

Next to the items in the checklist you have a number of check boxes labelled *well, satisfactory, must redo*. If you think you are able to do something really well, for instance explain the impact of some policy measure on the level of output, check the *well* box. If you think you are able to explain it, but are unsure about certain aspects or find it a bit difficult, check *satisfactory*. If you are somewhat lost but know something about the topic and will benefit from spending more time on it, check *must redo*.

The emphasis of this module is very much on the development of your understanding of different theories regarding the determination of output and income. You must know all the different concepts, such as the different assumptions, which underlie the theoretical models, the interaction between the various macroeconomic variables, the different analytical tools, and the economic policy implications of each model.

It is important that you have a thorough understanding of the different building blocks of the various models (goods market model, financial market model, IS-LM model, IS-LM model for an open economy, labour market model, AS-AD model) so as to gain a comprehensive picture of how the economy works. Towards the end of the module, this picture will become clearer and logical.

Some previous examination papers are available on myUnisa under the "official study material" folder. Please revise all the study units before trying to complete the examination papers. If you complete the papers do it under the same conditions as in the examination room. Therefore, do not consult the study guide or any other help.

To concentrate only on previous examination papers will not guarantee a pass. You must be able to answer questions on all the prescribed work and study outcomes as indicated in the study guide. **No examination memorandums are available**.

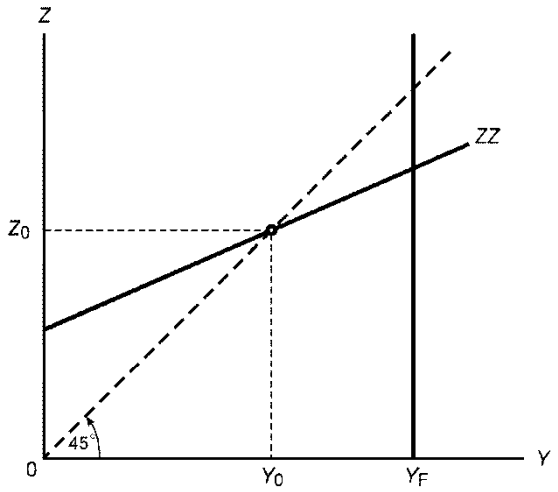
3. HOW TO ANSWER MACROECONOMIC QUESTIONS IN THE EXAMINATION

The aim of this part of the tutorial letter is to give you guidelines how to answer macroeconomic questions. **Please note that you will not necessarily find the same questions in the examination but similar questions based on the study outcomes in the study guide can be expected**.

To save paper in the tutorial letter we have deleted some lines in the answering section part. We kept only one or two lines as an example. In the examination, you will get enough space to answer the questions.

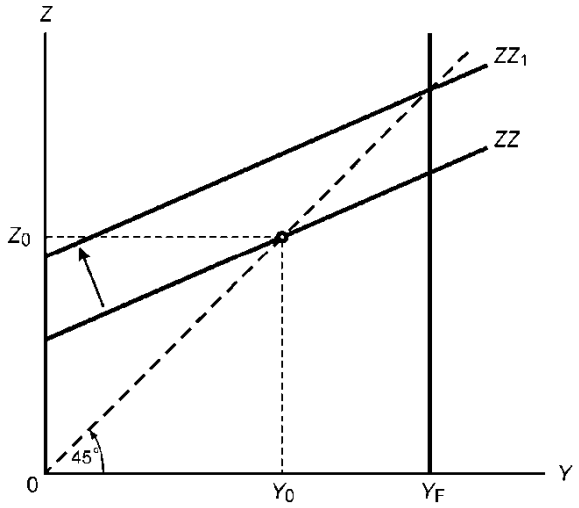
EXAMPLE 1 (4 marks)

Use the following goods market model to explain how fiscal policy can be used to ensure full employment. Indicate any shift and/or movement on the diagram.



Explanation:

ANSWER ON EXAMPLE 1



Please note that the question requires you to make use of the diagram. You must therefore not only describe your answer in words but you also need to show what happens in the diagram.

To get full marks for this question your answer should contain the following information:

Explanation:
You must indicate that an expansionary fiscal policy is required and refer to one or both of the fiscal policy instruments, namely an increase in G and/or a decrease in T.

You then need describe how an increase in G and/or a decrease in T will affect the level of output and employment. For this purpose, you can use the following chain of events. Note that the way in which government spending impacts on the level of output and income differs from the way in which taxation impacts on it.

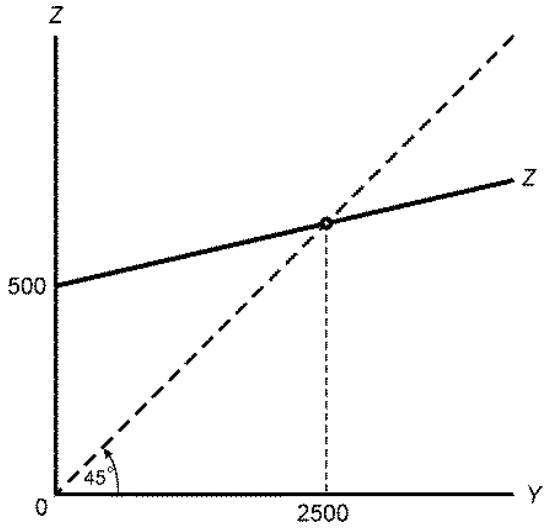
$G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$ ***and/or***
$T\downarrow \Rightarrow Y_D\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

You then need to indicate the impact of an expansionary fiscal policy on the diagram by showing that it shifts the ZZ curve upwards and that the full employment level of output and income is reached.

You then end your answer with your conclusion namely that it is possible to reach full employment by increasing the demand for goods through an increase in government spending and/or a decrease in taxation.

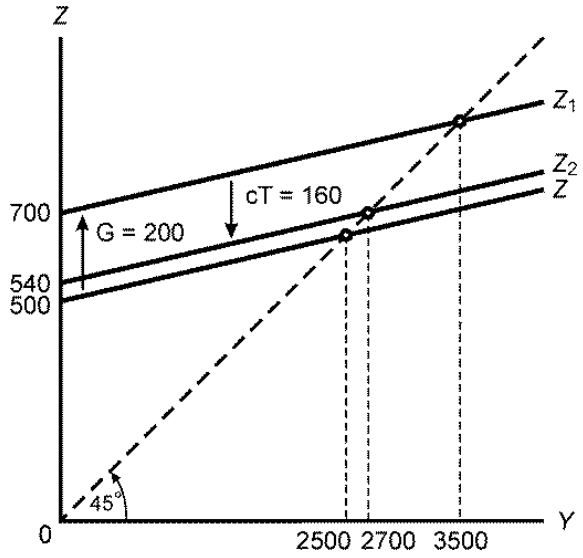
EXAMPLE 2 (6 marks)

Use the following goods market model to illustrate and explain the impact of a simultaneous increase of 200 in government spending and an increase of 200 in taxes on the level of output and income.



Explanation:

ANSWER ON EXAMPLE 2



To be able to answer this question you need to understand the balanced budget multiplier. In your answer you need to make use of the information provided – that is the 200 change in government spending and taxation – and explains as well as illustrates on the diagram how this will affect the level of output and income.

In order to answer this question you need to know the values of the marginal propensity to consume and the multiplier. In this question the marginal propensity to consume and the multiplier can be derived using the information given in the diagram. If the given information could not be used to calculate the marginal propensity to consume or the multiplier you would be expected to make an assumption about one and derive the other one given that assumption. In this instance, however the information does allow us to calculate the marginal propensity to consume and the multiplier thus you cannot make your own assumption about these amounts.

How to calculate the marginal propensity to consume and the multiplier given that the demand for goods is 500 and it corresponds to a level of output and income of 2 500.
We know that the level of output and income equals to the multiplier times autonomous spending.
2 500 = multiplier x 500
Multiplier = 2 500/500
Therefore, the multiplier is equal to 5.

Now that we know the value of the multiplier, we can calculate the marginal propensity to consume
Multiplier = 1 / 1 – marginal propensity to consume
$5 = 1/1 - c$
$5 (1 - c) = 1$
$5 - 5c = 1$
$-5c = 1 - 5$
$-5c = -4$
$c = 4/5$
$c = 0.8$

Starting with an increase in government spending the increase in autonomous spending is 200. This is illustrated by an upward shift of the demand curve for goods by 200.

The increase in the level of output and income is therefore 200 x 5 = 1 000 and the level of output and income increases to 3 500 (2 500 + 1 000).

The increase of 200 in taxes decreases autonomous spending by c(T): therefore 0.8(200) = 160. This is illustrated be a downward shift of the demand curve for goods by 160.

The decrease in the level of output and income is therefore 160 x 5 = 800.

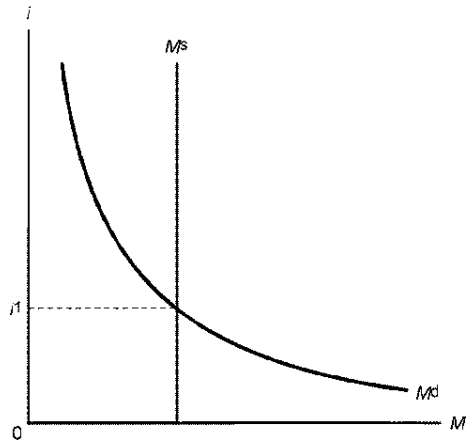
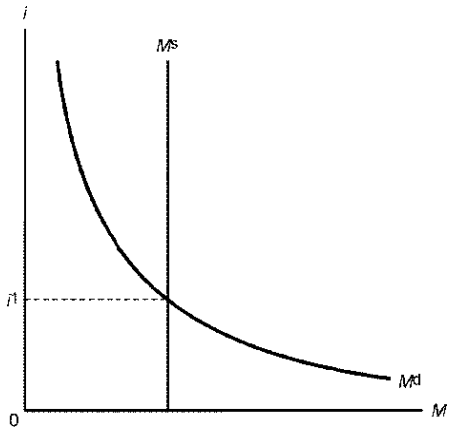
The level of output and income therefore settles at 2 700 (3 500 – 800).

The balanced budget multiplier is equal to 1, therefore the net effect of an equal increase in government spending and taxes will still have expansionary effect on the level of output and income. In this case, the increase in the level of output and income is equal to 200.

Once again, note the difference between the impact of government spending and taxation.

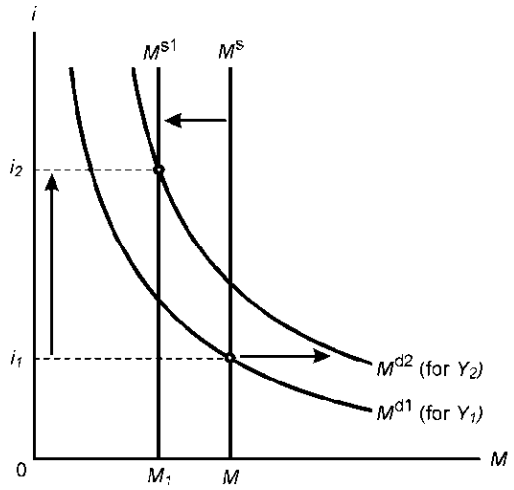
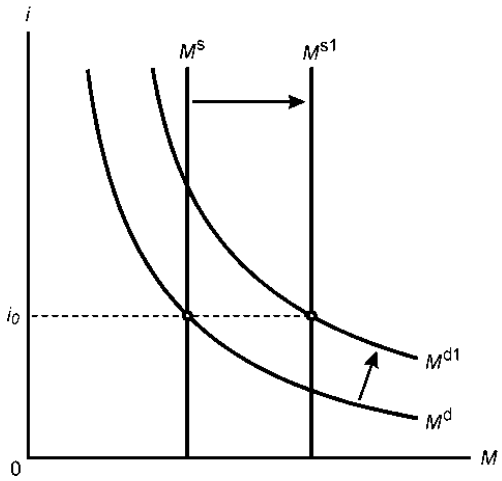
EXAMPLE 3 (6 marks)

Use the following diagrams of the financial market to illustrate and explain the impact on the equilibrium interest rate:

(a) An increase in income with simultaneous contractionary open market operations by the central bank	**(b) An increase in income with simultaneous expansionary open market operations by the central bank**
	
Impact on the equilibrium interest rate:	**Impact on the equilibrium interest rate:**

ANSWER ON EXAMPLE 3

In your answer you need to make use of the diagrams to illustrate (to show) and explain. It is also important that your explanation correspond with your diagram.

(a) An increase in income with simultaneous contractionary open market operations by the central bank	(b) An increase in income with simultaneous expansionary open market operations by the central bank
	
Impact on the equilibrium interest rate:	**Impact on the equilibrium interest rate:**
Explanation: An increase in income will result in an increase in the interest rate because Y↑ ⇒ M^d↑⇒ i↑ (Illustrated as a shift of the M^d curve to the right) Contractionary open market operations by the central bank consists of the central bank selling bonds (which will reduce the money supply, i.e. it is applying a contractionary monetary policy) which results in an increase in the interest rate because M^s↓: S_B↑ ⇒ P_B↓ ⇒ i↑ (Illustrated by a shift of the M^s curve to the left) *Conclusion*: The interest rate (i) will definitely increase as a result.	*Explanation*: An increase in income will result in an increase in the interest rate because Y↑ ⇒ M^d↑⇒ i↑ (Illustrated as a shift of the M^d curve to the right) Expansionary open market operations by the central bank consists of the central bank buying bonds (which will increase the money supply, i.e. it is applying an expansionary monetary policy) which results in a decrease in the interest rate because M^s↑: D_B↑ ⇒ P_B↑ ⇒ i↓ (Illustrated by a shift of the M^s curve to the right) *Conclusion*: The impact on the interest rate (i) is uncertain/ indeterminate. (It can increase or decrease or stay the same since it depends on the relative shifts of the two curves).

EXAMPLE 4 (7 marks)

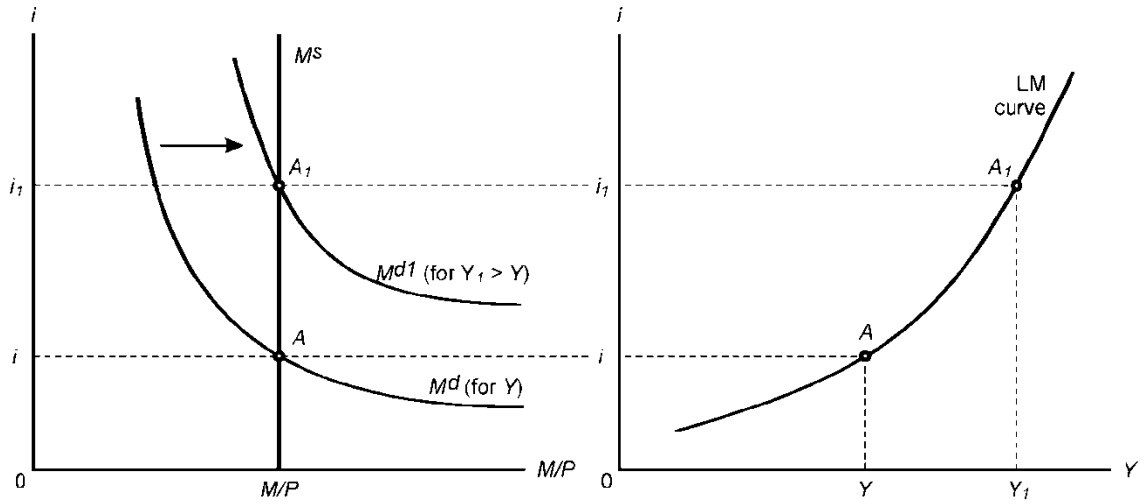
Define the LM curve and derive the LM curve by using appropriate diagrams and in words.

Derivation of the LM curve
Diagram:

Explanation:

ANSWER ON EXAMPLE 4

Diagram a **Diagram b**



The question requires you to define the LM curve and then derive it with the aid of diagrams. Make sure that you define the LM curve and when deriving it, it is important that your explanation corresponds to the diagram and that the steps you describe to derive the LM curve are in a logical order – you start from a given equilibrium position and then describe the events that take place if the level of output and income changes.

Definition: LM curve indicates combinations of interest rates and income levels where the financial market is in equilibrium, given that the real money supply is unchanged.

To plot the first point A:

Step 1: Given an income level of Y in diagram b, we have a corresponding demand for money curve M^d in diagram a. Equilibrium in the financial market occurs where M^d and M^s intersect (point A in diagram a) and the equilibrium interest rate is i.

Step 2: Extend the equilibrium interest rate i in diagram a with a dotted line to diagram b. The first point on the LM curve is also indicated as point A since it corresponds to point A in diagram a and shows the financial market equilibrium position at the level of output and income of Y.

To plot the second point A_1*:*

Step 3: **Assume an increase in the level of output and income** from Y to Y_1 in diagram b.

(or a decrease in income: opposite direction)

Step 4: Given this higher level of output Y_1, the M^d increases. The demand for money curve shifts to the right from M^d to M^{d1} in diagram a and a new financial market equilibrium position at point A_1 in diagram a and an increase in the equilibrium interest rate to i_1.

Step 5: Extend the equilibrium interest rate i_1 in diagram a to diagram b. The second point on our LM curve is also indicated as point A_1 since it corresponds to point A_1 in diagram a and shows the financial market equilibrium position at the level of output and income of Y_1.

EXAMPLE 5 (8 marks)

In response to the Great Recession, many countries used monetary and fiscal policies in an attempt to deal with the impact of the recession on the level of output and income and unemployment.
Use the IS-LM model to explain the impact of these policies on

1. the level of output and income.
2. the budget balance of government.
3. unemployment.

IS-LM model

Variable	Impact of these policies
1. Level of output and income	_____ _____ _____
2. Budget balance of the government	_____ _____ _____
3. Unemployment	_____ _____ _____

ANSWER ON EXAMPLE 5

In this question, it is required from you to apply the IS-LM model to describe certain events. To be able to answer this question you must therefore be familiar with the IS-LM model.

The event that you need to describe in the your answer is how fiscal and monetary policy can be used to deal with an economic recession by referring to the impact of these policies on the level of output and income, the budget balance of government and unemployment.

To deal with an economic recession expansionary monetary and expansionary fiscal policy will be implemented, in other words an increase in the money supply (and the LM curve will shift downwards) and an increase in government spending and/or decrease in taxation (and the IS curve will shift to the right). These shifts must be illustrated on the diagram. See diagram below.

To answer this type of question you need to make use of a chain of events.

In the case of expansionary fiscal policy, the chain of events is as follows:

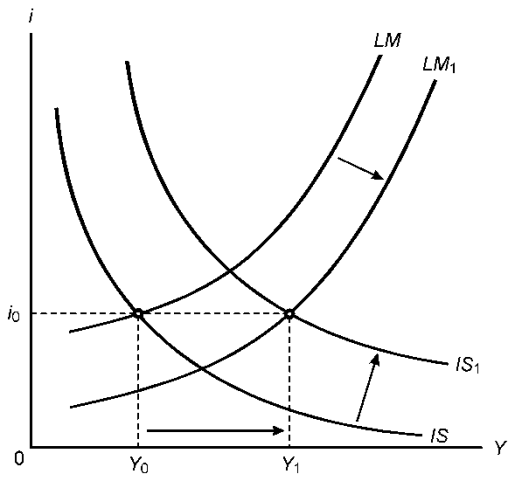
In the goods market first: $G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$ ***or*** $T\downarrow \Rightarrow Y_D\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
$Y\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

$Y\uparrow \Rightarrow I\uparrow$

Then in the financial market: $Y\uparrow \Rightarrow M^d\uparrow \Rightarrow i\uparrow$

In the case of expansionary monetary policy, the chain of events is as follows:

In the financial market first: $M^s\uparrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
Then in the goods market: $i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

IS-LM model


Note that in your answer you should not only indicate whether the impact will increase or decrease the variable but also why it will bring about the change.

Variable	Impact of these policies
1.Level of output and income	Y increases: Fiscal: G↑ ⇒ Z↑ ⇒ Y↑ Monetary: M^s↑ ⇒ M/P↑ ⇒ i↓ ⇒ I↑ ⇒ Z↑ ⇒ Y↑
2.Budget balance of the government	Fiscal: G↑ or T↓ Assuming a balanced budget as the initial position, the impact will be to create a budget deficit.
3. Unemployment	Y↑ ⇒ N↑ ⇒ u↓

EXAMPLE 6 (10 marks)

Explain and illustrate by using two different diagrams the impact of an expansionary fiscal policy in:

(a) The goods market model. (3)
(b) The IS-LM model. (5)
(c) Compare the results in (a) and (b) above. (2)

(a) Goods market model	(b) IS-LM model

Explanation:

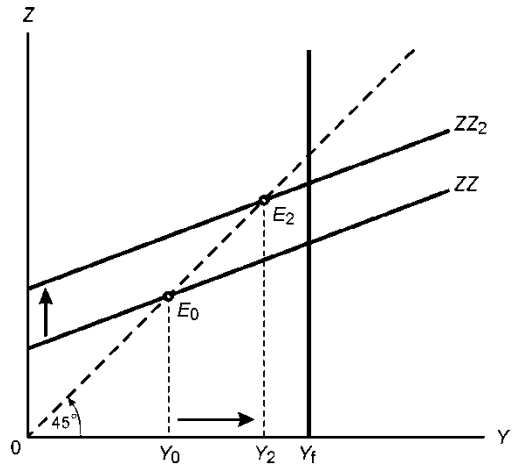
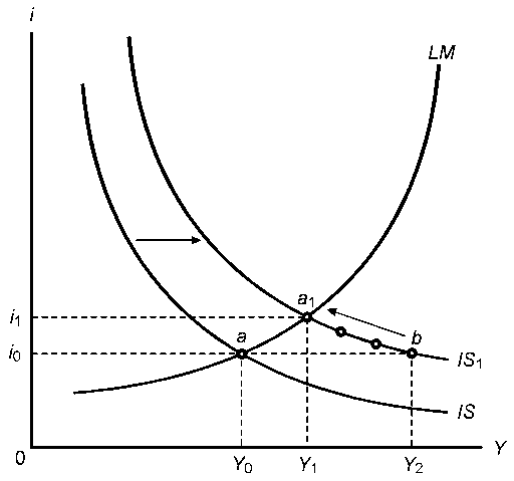
ANSWER ON EXAMPLE 6

In this question, you need to **compare** the impact of an expansionary fiscal policy in the goods market model (learning unit 2) with the IS-LM model (learning unit 4).

When a question requires you to compare it is important that you give reasons for the similarities and the differences.

Please work also through the example in section 4 below, question 2 (the steps to follow in answering a comparison question).

The impact of an expansionary fiscal policy:

(a) Goods market model	(b) IS-LM model
	

Explanation:
In the **goods market model**, an expansionary fiscal policy will result in:
$G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
Or
$T\downarrow \Rightarrow Y_D\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

(Illustrated by the ZZ curve shifting upwards)

In the **IS-LM model**, an expansionary fiscal policy will also affect the financial market:

Goods market: $G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$ ***or*** $T\downarrow \Rightarrow Y_D\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
$Y\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

$Y\uparrow \Rightarrow I\uparrow$

Financial market: $Y\uparrow \Rightarrow M^d\uparrow \Rightarrow i\uparrow$

Back to goods market: $i\uparrow \Rightarrow I\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$

(Illustrated by the IS curve shifting to the right. Note that **no marks** were given if the LM curve shifted as well because the question only refers to fiscal policy.)

(c) Comparison (a) and (b) above:

In both models Y↑; however in the IS-LM model interest rate increases i↑ and investment spending is indeterminate I↑↓.

EXAMPLE 7 (7 marks)

Draw a diagram of the IS-LM model for an open economy in the space below to indicate what will happen to the nominal exchange rate if a contractionary monetary policy is applied. Explain the impact of this policy on the trade balance.

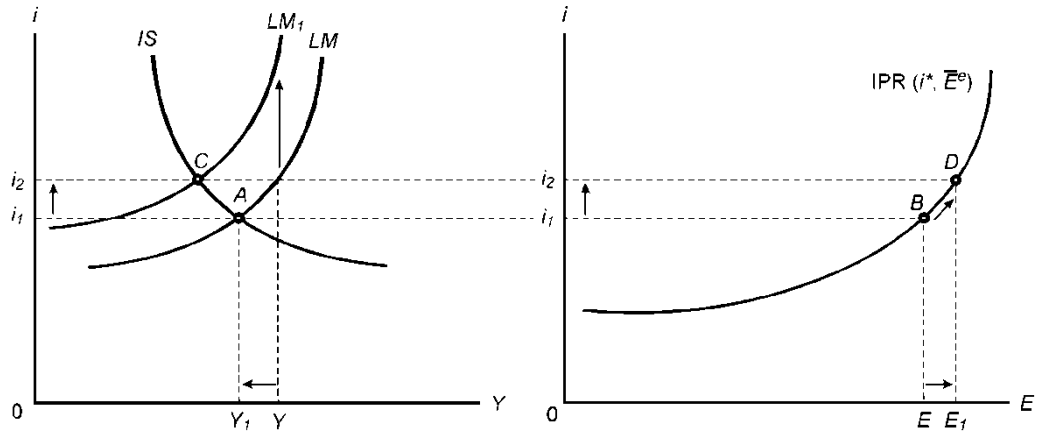
IS-LM model for an open economy

Explanation:

ANSWER ON EXAMPLE 7

In your answer to this question you need to show what will happen to the nominal exchange rate in the event of a contractionary monetary policy – you do not need to explain what happens in the diagram. However, you need to explain what the impact of a contractionary monetary policy on the trade balance is.

IS-LM model for an open economy



Please note that if the diagrams are incorrect, no marks will be given for the explanation.
To answer this question you first need to explain what will happen in the financial market when the central bank employs a contractionary monetary policy, i.e. decreases the money supply. A decrease in the nominal money supply causes a decrease in the real money supply and an increase in the interest rate in the financial market ($M\downarrow \Rightarrow M/P\downarrow \Rightarrow i\uparrow$).

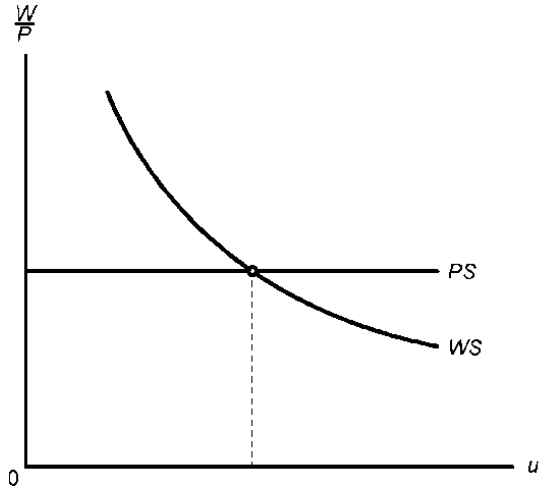
Impact on the nominal exchange rate: The rise in the domestic interest rate relative to the interest rate in the rest of the world makes domestic bonds more attractive and a capital inflow occurs. This capital inflow increases the demand for the domestic currency (it decreases the demand for foreign currency) and the nominal exchange rate increases and the domestic currency appreciates
($i\uparrow \Rightarrow Capital_{inflow} \Rightarrow E\uparrow$).

Impact on the trade balance: After an appreciation, exports become relatively more expensive to our trading partners and imports become relatively cheaper to South Africans. If the Marshall-Lerner condition holds, the negative quantity effect of more imports and less exports will overwhelm the positive cost effect of a lower imports bill, therefore: $E\uparrow \Rightarrow X\downarrow \Rightarrow NX\downarrow$ and $E\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$ and the trade balance deteriorates. The lower level of income and output resulting from a decrease in the demand for goods due to the contractionary monetary policy and the decrease in exports will lead to a lower level of imports, which affects the trade balance positively. However we assume that the negative effect resulting from the appreciation overwhelms this effect and that the trade balance deteriorates overall.

Compare this answer with Question 3.2 in section 4 below. In question 3.2 the contractionary monetary policy is also applied, but here the impact on more than one variable must be explained.

EXAMPLE 8 (7 marks)

Use the following diagram to explain what happens to the following variables if the unemployment rate decreases:



Targeted real wages:
Nominal wage:
Implied real wage:

ANSWER ON EXAMPLE 8

In your answer, you need to indicate what happens in the diagram and then explain why this change has occurred.

Targeted real wages: An upward movement along the WS curve, targeted real wage increases since bargaining position of workers are better.
Nominal wage: It increases since it is through higher nominal wages that a higher real wage W/P is targeted.
Implied real wage: It stays the same/unchanged as indicated by the intersection of the WS curve and PS curve; The price behaviour of firms indicates that if W↑ ⇒ P↑ (therefore W/P the same).

EXAMPLE 9 (12 marks)

Use the AS-AD model to illustrate and explain the impact of an **expansionary monetary policy** in the **medium run**.

AS-AD model

Explanation:

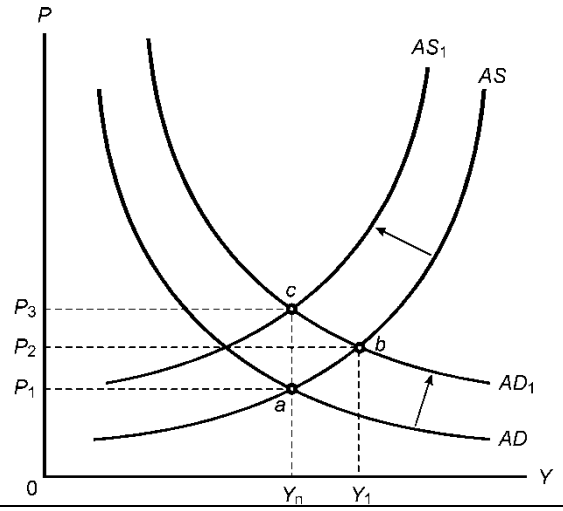
ANSWER ON EXAMPLE 9

This is a challenging question since you need to explain what happens in three markets (goods market, financial market and the labour market) over the **medium run**. You also need to refer to the neutrality of money.

As a first step make sure that your diagram is correct and that you know that the medium run is captured by the movement from point b to point c.

You then need then explain what happens on the goods market, the financial market and the labour market during this process and then reach a conclusion about the impact of an expansionary monetary policy.

AS-AD model



Note that if the diagram is incorrect no marks will be given for the explanation.
Explanation: Read the question again. In this case, you can answer the question by using words and/or chain of events. In other cases, we can ask you to use only words or only chain of events.

In the short run (ONLY FOR BACKGROUND PURPOSES) (NO MARKS GIVEN)	
Initial events in the financial market	$M\uparrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow$
Events in the goods market In terms of the AS-AD model this is represented by a rightward shift in the AD curve	$i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
Events in the labour market AS-AD model: is indicated by an upward movement along the AS curve and a short-run equilibrium position is reached at point b.	$Y\uparrow \Rightarrow N\uparrow \Rightarrow u\downarrow \Rightarrow W\uparrow \Rightarrow P\uparrow$

IN THE MEDIUM RUN: *(P^e changes)*

(Marks will be given for this part of the explanation in words or chain of events)

Events in the labour market

At point b, the expected price level on which workers based their real wage negotiations turned out to be lower than the actual price level.

$P^e\uparrow \Rightarrow W\uparrow \Rightarrow P\uparrow$

The workers revised their expected price level upwards and negotiated for higher wages. In reaction to the higher nominal wages, firms increase the price level.

The effect is captured by a shift of the AS curve upwards from AS to AS_1.

Events in the financial and goods market

As the price level increases the real money supply decreases in the financial market leading to an increase in the interest rate. The increase in the interest rate causes firms to decrease their investment spending and, consequently, aggregate demand and the level of output and income decreases.

$P\uparrow \Rightarrow M/P\downarrow \Rightarrow i\uparrow \Rightarrow I\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$

This is captured by an upward movement along the AD_1 curve. This process continues until point c is reached where the level of output is at the natural level of output, and the unemployment rate by implication, are equal to the natural rate of unemployment. This again is the medium run position.

THE NEUTRALITY OF MONEY

Impact of an expansionary monetary policy: in the medium run it is neutral, meaning that it only changes nominal variables and not the real variables in the model.

Comparing point c (the medium run position) with point a it is clear that not only are the level of output and income, the level of employment and the unemployment rate what they were before the increase in the nominal money supply, but the real money supply, the interest rate, investment spending, government spending and the real wage are also equal to their original values. What has changed? In this case the nominal variables are higher, namely the nominal money supply, the nominal wage and the price level.

Background information only

The nominal variables increase in the medium run

- $M^s\uparrow$ (due to the assumed increase in nominal money supply)
- $W\uparrow$ (due to an increase in employment and then due to an increase in P^e)
- $P\uparrow$ (since the nominal wage is higher)

The real variables are all **unchanged in the medium run**

- M/P (first increases, because of higher M^s, but then starts to decrease because of higher P)
- i (first decreases, then increases)
- I (first increases, then decreases)
- Z (first increases, then decreases)
- Y (first increases, then decreases)
- W/P (unchanged throughout the process)

4. COMMENTS ON THE OCT/NOV 2015 MACROECONOMICS EXAMINATION PAPER (UNIQUE NUMBER 498796)

NOTE!

When marking the examination scripts during the Oct/Nov examination period it became very clear that most students did not work thoroughly through the study guide (MO001), the activities in TL102 and TL103 (where examples were given how to answer macroeconomic questions) as we indicated in our guidelines prior to the examination!

In TL102, there are many extra activities to help you to progress through the syllabus and to make sure that you understand the content. The solutions to the questions were also provided in TL102:

Learning unit 1: 13 MCQs

Learning unit 2: 96 MCQs and 60 other questions (e.g. definitions, paragraph-type questions, "to draw and explain a diagram" questions, to compare questions and longer essay-type questions)

Learning unit 3: 48 MCQs and 28 other questions

Learning unit 4: 79 MCQs and 26 other questions

Learning unit 5: 15 MCQs and 10 other questions

Learning unit 6: 27 MCQs and 9 other questions

Learning unit 7: 39 MCQs and 7 other questions

Learning unit 8: 24 MCQs and 12 other questions

Learning unit 9: 91 MCQs and 6 other questions

It was also clear that some students only worked through old examination papers without any understanding of the theoretical building blocks of the different macroeconomic models (goods market, financial market, IS-LM model in a closed and an open economy, the labour market as well as the AS-AD model).

Work through the following comments regarding the Oct/Nov 2015 examination paper to see how many of the questions were identical to or were based on questions from TL102 and TL103.

QUESTION 1 (20 MARKS)

Question 1.1 (2 marks)

The multiplier effect in the economy results from the behaviour of households. Briefly explain why.

This question is based on Activity 2.15 (1) and (2) combined in TL102. See the answer to this activity in TL102.

Question 1.2 (5 marks)

Taxes are part of autonomous spending in the goods market model.
Briefly explain why a decrease in taxes increases the demand for goods and shifts the demand for goods curve upwards in the goods market, equal to c(T) and not T. Why by c(T) and not T?

This question is the same as Activity 2.39(1). See the answer to this activity in TL102.

Question 1.3 (3 marks)

*Explain briefly **in words** why the net effect of an equal increase in government spending and taxes (in other words, the budget balanced) will still have a stimulatory effect on the level of output and income.*

This question is the same as Activity 2.45(3). See the answer to this activity in TL102. Many students used a numerical example and did not **explain** the reason for the effect in **words** as instructed by the question.

Question 1.4 (4 marks)

By using the two diagrams below show the difference between a decrease in investment spending and a decrease in the marginal propensity to consume on the equilibrium output and income level in the goods market model.

This question is based on Activity 2.34 in TL102 and only refers to the opposite direction.

Most students indicated the decrease in investment spending and marginal propensity to consume correctly but did not indicate the direction of equilibrium output and income level (Y).

Question 1.5 (6 marks)

(a) What institution issues treasury bills? (1)

Government/National treasury. We also accepted the South African Reserve Bank/central bank because it serves as the issuing agent.

(b) Use the following diagram to illustrate on the diagram and briefly explain in words why a decrease in the level of output and income causes a decrease in the equilibrium interest rate. (5)

This question is the same as Activity 3.11(1). See the answer to this activity in TL102. Many students incorrectly shifted the M^s curve and not the M^d curve.

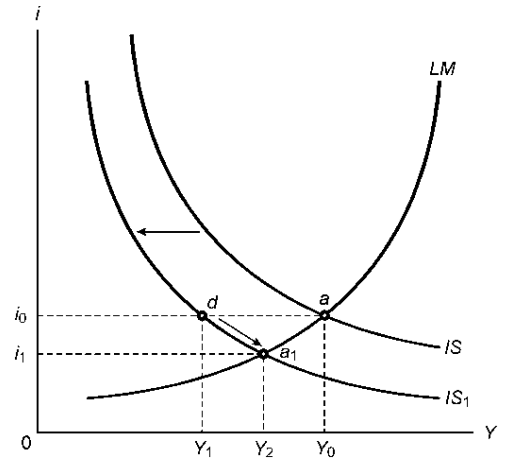
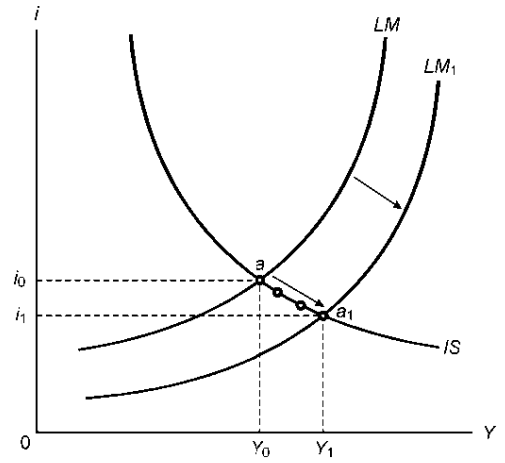
QUESTION 2 (6 MARKS)

*Use an IS-LM model to illustrate on the diagrams below and to **compare** the impact of a contractionary fiscal policy with that of an expansionary monetary policy.*

This question is based on section 4.8 in the MO001 where expansionary monetary policy was compared to expansionary fiscal policy and Activity 4.22 (2).

Also, see example 6 and the answer on example 6 in section 3 above where it was asked to compare the impact of expansionary fiscal policy in the goods market model and the IS-LM model.

In the case of contractionary fiscal policy the IS curve will shift to the left and in the case of expansionary monetary policy the LM curve will shift downwards. See the diagrams below.

(a) IS-LM model: Contractionary fiscal policy	(b) IS-LM model: Expansionary monetary policy
	

The question stated that the student must ***compare** the **impact** of a contractionary fiscal policy with that of an expansionary monetary policy.*

The question did not identify which variables had to be compared. Therefore, the student could choose any two variables from the IS-LM model for an open or closed economy.

We marked the comparison between any two variables, e.g. the **impact on Y and/or the impact on i and/or the impact on I and/or the impact on E, etc.**

Many students only referred to the shifts of the IS and LM curves and did not compare the <u>impact</u> on the variables of the policies, which is not a sufficient answer.

For example, the following explanation would receive zero marks:
"The IS curve shifted to the left and therefore i decreases and Y decreases and the LM curve shifted downwards and therefore i decreases and Y increases."

In any comparison, the chosen variables must be compared between the two policies with reasons supporting the impact on the variables.

When answering a comparison question, use the following steps:

Step 1
Identify

- **Identify** which variables are to be compared.
- If the variables are identified in the question, start at step 2.
- If you need to select the variables then you need to consider all the variables which will be effected by both policies. See the block below with background information. From this information we can see that we can compare Y, i, I, E or NX in this question.

Step 2
Explain

- Once you have identified which variables you will compare you need to **explain** how the policy will effect that variable. Just indicating the direction of the change in the variable is not sufficient because that is illustrated by the diagrams. You must show that you understand why the variables have changed.

Step 3
Compare

- After explaining why the variables have changed, **compare** your findings.
- The comparison is in effect the conclusion and if your explanation is not correct, your comparrison can't be marked.

Background information you needed to know to answer this question	
Contractionary fiscal policy	**Expansionary monetary policy**
Goods market: $G\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$ (or $T\uparrow \Rightarrow Y_D\downarrow \Rightarrow C\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$) Financial market: $Y\downarrow \Rightarrow M^d\downarrow \Rightarrow i\downarrow$ Goods market: $i\downarrow \Rightarrow I\uparrow$ and $Y\downarrow \Rightarrow I\downarrow$ (therefore I is indeterminate) Exchange rate: $i\downarrow \Rightarrow$ Capital outflow $\Rightarrow E\downarrow$ Trade Balance: After a depreciation, the price of exports decreases and the price of imports increases. If the Marshall-Lerner condition holds, the positive quantity effect of fewer imports and more exports will overwhelm the negative cost effect of a higher imports bill, therefore: $E\downarrow \Rightarrow X\uparrow \Rightarrow NX\uparrow$ and $E\downarrow \Rightarrow IM\downarrow \Rightarrow NX\uparrow$ and the trade balance improves. The higher level of income and output resulting from an increase in the demand for goods due to the increase government spending and the increase in exports will lead to a higher level of imports which effects the trade balance negatively. $G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$ and $X\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$ However we assume that the positive effect resulting from the depreciation overwhelms this effect and that the trade balance improves overall.	Financial market: $M\uparrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow$ Goods market: $i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$ and $Y\uparrow \Rightarrow I\uparrow$ (therefore I is higher) Exchange rate: $i\downarrow \Rightarrow$ Capital outflow $\Rightarrow E\downarrow$ Trade Balance: After a depreciation, the price of exports decreases and the price of imports increases. If the Marshall-Lerner condition holds, the positive quantity effect of fewer imports and more exports will overwhelm the negative cost effect of a higher imports bill, therefore: $E\downarrow \Rightarrow X\uparrow \Rightarrow NX\uparrow$ and $E\downarrow \Rightarrow IM\downarrow \Rightarrow NX\uparrow$ and the trade balance improves. The higher level of income and output resulting from an increase in the demand for goods due to the expansionary monetary policy and the increase in exports will lead to a higher level of imports, which affects the trade balance negatively. $M\uparrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$ and $X\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$ However we assume that the positive effect resulting from the depreciation overwhelms this effect and that the trade balance improves overall.

Example #1

Step 1 & 2: Discussion of the impact on Y. Y decreases in contractionary fiscal policy because government spending decreases and/or taxes increase and therefore the demand for goods decreases and Y decreases (or $G\downarrow \Rightarrow Z\downarrow \Rightarrow$ **Y**$\downarrow$) while in the case of expansionary monetary policy Y increases since the money supply increases which leads to an increase in the real money supply which leads to a decrease in the i that will cause investment spending, the demand for goods and Y to increases to increase (or $M\uparrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow$ **Y**$\uparrow$).

Step 3: The output and income level will decrease in the case of contractionary fiscal policy while it will increase in the case of expansionary monetary policy.

Example #2

Step 1 & 2: Discussion of the impact on i. A decrease in G will lead to a decrease in the level of output and income (Y) which leads to a decrease in the demand for money and consequently the interest rate decreases (or $G\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow \Rightarrow M^d\downarrow \Rightarrow \mathbf{i}\downarrow$). While in the case of an increase in the money supply (expansionary monetary policy), the real money supply will increase and the interest rate consequently decreases (or $M\uparrow \Rightarrow M/P\uparrow \Rightarrow \mathbf{i}\downarrow$).

Step 3: In the case of both a contractionary fiscal policy and an expansionary monetary policy the interest rate will decrease.

Therefore, to compare any variables it is important the student must know the chain of events, which can be used as a background.

Note: unless otherwise stated in the question, you can use words or a chain of events for your explanation.

If a student wants to use a table to answer step 2 in the comparison of variables it will look as follows:

Variable	Expansionary monetary policy	Contractionary fiscal policy
Consumption spending	Increases since Y is higher	Decreases since Y is lower
Investment spending	$I\uparrow$ since $i\downarrow$	Indeterminate since $i\downarrow \Rightarrow I\uparrow$ and $Y\downarrow \Rightarrow I\downarrow$
Government spending	Unchanged in monetary policy	Decreases if the contractionary fiscal policy is the result of a decrease in government spending
Taxation	Unchanged in monetary policy	Increases if the contractionary fiscal policy is the result of an increase in taxation
Output and income level	$Y\uparrow$ since $i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow$	$Y\downarrow$ since $G\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$ Or $T\uparrow \Rightarrow Y_D\downarrow \Rightarrow C\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$
Interest rate	$i\downarrow$ since $M\uparrow \Rightarrow M/P\uparrow$	$i\downarrow$ since $Y\downarrow \Rightarrow M^d\downarrow$
Demand for money	Unchanged	$M^d\downarrow$ since $Y\downarrow$
Budget deficit	Unchanged	Decreases since $G\downarrow$ or $T\uparrow$
Money supply	Increases due to expansionary monetary policy	Unchanged
Exchange rate	$E\downarrow$ since $i\downarrow$	$E\downarrow$ since $i\downarrow$
Trade balance	$NX\uparrow$ since $X\uparrow$	$NX\uparrow$ since $X\uparrow$

Remember you still need to complete step 3, a comparison of the results.

QUESTION 3 (13 MARKS)

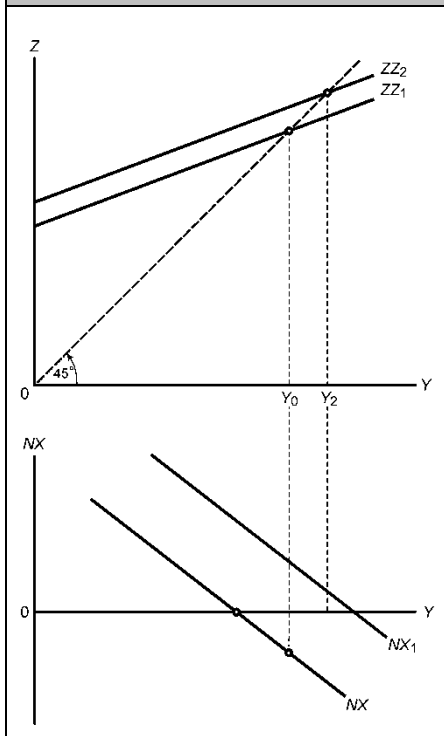
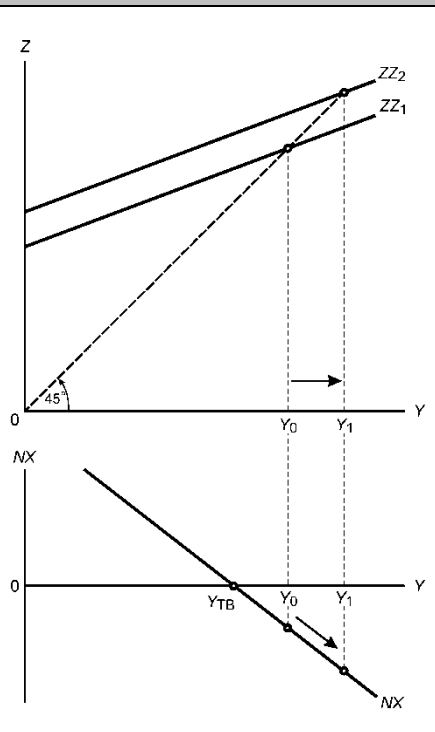
Question 3.1 (6 marks)

Using the following diagram, indicate what happens to the level of output and income and the trade balance if:

(i) Exports increase.
(ii) Government spending increases.
(iii) Compare the results in (i) and (ii) above regarding the level of output and the trade balance.
Clearly indicate the shifts of and/or movements along the curves on the diagram.

This question is a combination between activity 6.6 (government spending in the opposite direction) and activity 6.7 (in this case the starting point was at a trade balance position).

Read the question again. It asks to compare the results.

Exports increase	Government spending increases
	

Note: Many students changed the diagram to start at Y_{TB} position and not at the trade deficit position which was the initial equilibrium given in the question. You are not supposed to change the initial equilibrium position of the diagram. We will deduct marks if you change the initial equilibrium position of the diagram.

The variables for comparison were identified in the question, therefore we start at step 2 (see the explanation under question 2 above regarding a comparison type question).

Step 2: (The impact on output and income)

(i) An *increase in exports* will increase the level of output and income because the demand for domestic goods increases: X↑ ⇒ Z↑ ⇒ Y↑.
(ii) An *increase in government spending* will also increase the demand for domestic goods, increasing the level of output and income: G↑ ⇒ Z↑ ⇒ Y↑.

Step 3: in both cases, the level of output and income increases.

Step 2: (The impact on the trade balance)

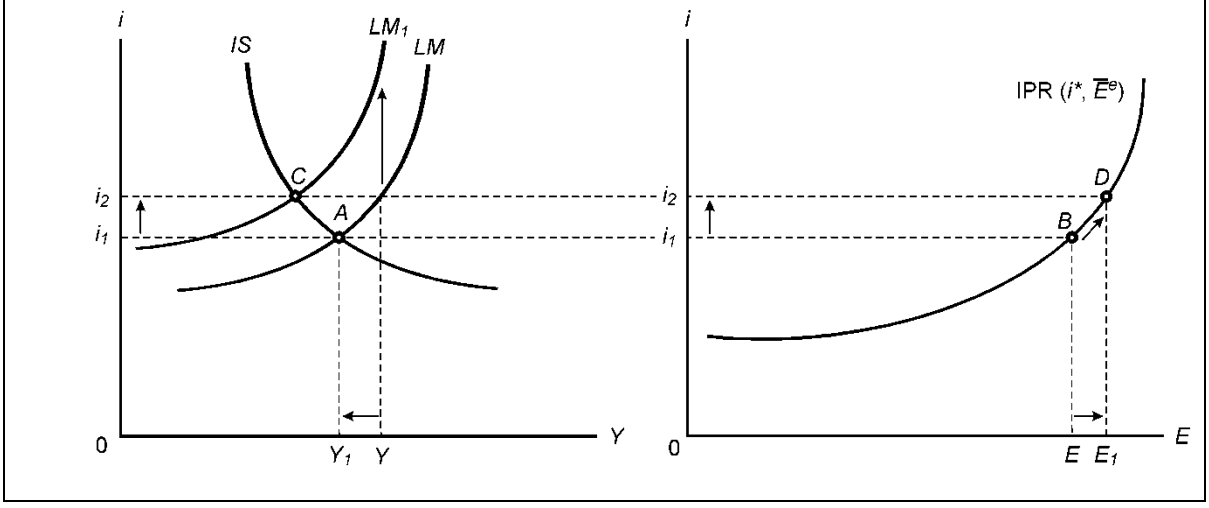
(i) An *increase in exports* will have the following effects on the trade balance: X↑ ⇒ Z↑ ⇒ Y↑ ⇒ IM↑ ⇒ NX↓ and X↑ ⇒ NX↑. We assume that the positive effect of an increase in exports on the trade balance outstrips the negative effect of an increase in imports induced by the increase in the level of output and income, thus the trade balance thus improves.
(ii) An *increase in government spending* will lead to an increase in imports induced by the increase in the level of output and income, therefore the trade balance deteriorates: G↑ ⇒ Z↑ ⇒ Y↑ ⇒ IM↑ ⇒ NX↓ (NB: exports are unaffected).

Step 3: An increase in exports will result in an improvement in the trade balance however; an increase in government spending will result in a deterioration of the trade balance.

Question 3.2 (7 marks)

*Draw a diagram of the **IS-LM model for an open economy** in the space below to indicate what will happen to the nominal exchange rate if a contractionary monetary policy is applied. Explain the impact of this policy on the financial market, the goods market, the exchange rate and trade balance by using chain of events and/or words.*

IS-LM model for an open economy



See section 9.4 in the MO001 (study guide).This information was the same as the example in the guide, in other words a contractionary monetary policy where money supply decreases. See also Example 7 in section 3 above (in this case, only the impact on the nominal exchange rate was asked).

Since the question did not indicate which method to use, the student could have used a chain of event or words or a combination of the two to explain the impact of a contractionary monetary policy.

Note: In this module, we follow the traditional approach to money supply, which means that we assume the money supply is controlled by the central bank. A decrease in the money supply (resulting from the central bank selling bonds on the open market) will decrease in the real money supply which results in an increase in the interest rate (because the supply of bonds increases on the bonds market, and so the price of bonds decreases and the return on holding bonds, or interest rate, increases):
$M^s\downarrow$: $S_B\uparrow \Rightarrow P_B\downarrow \Rightarrow i\uparrow$.

In this module, the **central bank does not control the repo rate** or any other interest rate directly (as the SARB does in South Africa). The central bank influences the interest rate through the money supply. Therefore, the chain of events cannot start with: i↑

Explanation:

Impact on the financial market	
The initial impact of a decrease in the money supply is on the financial market. A decrease in the nominal money supply causes a decrease in the real money supply and an increase in the interest rate in the financial market. In terms of the financial market, this is represented by a shift of the supply of money curve (M^s) to the left.	$M\downarrow \Rightarrow M/P\downarrow \Rightarrow i\uparrow$
Impact on the goods market	
In the goods market an increase in the interest causes a decrease in investment spending which decreases the demand for goods and the level of output and income declines. As the level of output and income decreases, a further decrease takes place in investment spending.	$i\uparrow \Rightarrow I\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$ $Y\downarrow \Rightarrow I\downarrow$
Impact on the exchange rate and trade balance	
The increase in the interest rate causes an increase in capital inflows; the nominal exchange rate increases and the domestic currency appreciates (prices are assumed to be fixed in the IS-LM model therefore a nominal appreciation of the domestic currency will lead to a real appreciation of the domestic currency). An appreciation of the domestic currency increases the price of exports and the net exports position worsens. We assume that the Marshall-Lerner condition holds and that effect of lower imports induced by the lower level of income and output is overwhelmed and the trade balance deteriorates. There is a positive effect on the trade balance stemming from a decrease in imports because of a decrease in output but we assume that this effect is overwhelmed by the negative effect, therefore the trade balance deteriorates.	$i\uparrow \Rightarrow Capital_{inflow} \Rightarrow E\uparrow$ $E\uparrow \Rightarrow X\downarrow \Rightarrow NX\downarrow$ and $E\uparrow \Rightarrow IM\uparrow \Rightarrow NX\downarrow$

QUESTION 4 (11 MARKS)

Question 4.1 (5 marks)

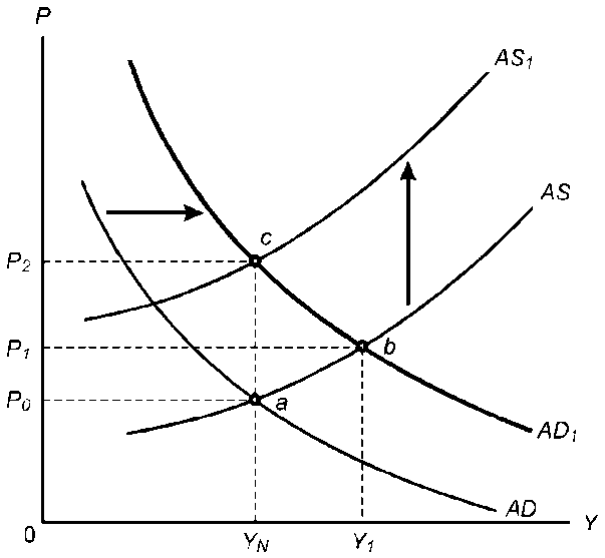
(a) Identify the three factors that impact on the nominal wage in the wage-setting relationship. (3)
See the three factors under section 8.2 in the MO001 (study guide).

(b) Briefly explain why it is not possible for labour to increase the real wage through nominal wage bargaining. (2)

See section 8.4 in the MO001 (study guide). It is important that you also refer role of firms and the price per unit is determined by the mark-up used by firms.

Question 4.2 (6 marks)

Use the following AS-AD model to answer the question below:



*Assuming that the rightward shift of the AD curve from AD to AD_1 is caused by an increase in government spending. Explain the impact of this action on the **goods market**, the **financial market** and the **labour market** in the medium run (the movement from point b to c).*

This question was based on section 9.5 in the MO001 (study guide). See example 9 in section 3 above. In this case, expansionary monetary policy was the reason for the rightward shift of the AD curve.

Note: Government spending causes the shift to the right as given in the question. Many students only refer to the impact of this action on the **goods market**, the **financial market** and the **labour market** in the *short run* (the movement from point a to b – see the table below referring to the short run which only served as a background).

Most students did NOT refer to the impact in the medium run (the movement from point b to c – see the second table below). Please read the question again. In order to explain the medium run, it was necessary that you know what will happen in the short run.

SHORT RUN: For BACKGROUND purposes ONLY

Short run: Initial events on the goods and financial markets

(P^e is the same)

$G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$
$Y\uparrow \Rightarrow M^d\uparrow \Rightarrow i\uparrow$
$i\uparrow \Rightarrow I\downarrow$
$Y\uparrow \Rightarrow I\uparrow$

In terms of the AS-AD model, this is represented by a rightward shift in the AD curve to AD_1.

Events in the labour market

$Y\uparrow \Rightarrow N\uparrow \Rightarrow u\downarrow \Rightarrow W\uparrow \Rightarrow P\uparrow$

In terms of the AS-AD model, an upward movement along the AS curve to point b occurs.

This is the **short run equilibrium** position.

Since the question did not indicate which method to use, the student could have used chain of event **or** words **or** a combination of the two to answer the question. It is not necessary to explain in words if you have already explained by means of a chain of events (as long as the question does not call for an explanation in words); this may *result in students running out of time to complete the examination paper*.

In the medium run: *(P^e changes)*

Events in the labour market

$P^e\uparrow \Rightarrow W\uparrow \Rightarrow P\uparrow$

ALTERNATIVELY, At point b, the expected price level on which workers based their real wage negotiations turned out to be lower than the actual price level. Workers revise their expected price level upwards and the nominal wage increases. In reaction to the higher nominal wages, firms increase their price levels.

This effect is captured by an *upward shift of the AS curve to AS_1*.

Events in the financial and goods market

$P\uparrow \Rightarrow M/P\downarrow \Rightarrow i\uparrow \Rightarrow I\downarrow \Rightarrow Z\downarrow \Rightarrow Y\downarrow$

ALTERNATIVELY, An increase in the price level causes a decrease in the real money supply and an increase in the interest rate in the financial market. In the goods market an increase in the interest rate causes a decrease in investment spending which decreases the demand for goods and the level of output and income declines.

In the AS-AD model by a movement along the AD_1 curve.

This process continues until point c is reached, where the level of output is at the natural level of output and the unemployment rate by implication is equal to the natural rate of unemployment.

This is the medium run position.

SECTION B: COMPULSORY (50 marks)

THE ENGLISH VERSION OF THE MULTIPLE CHOICE QUESTIONS STARTS ON PAGE …

INSTRUCTIONS

In this section, ALL questions must be answered on the **mark reading sheet**, which is supplied. **Carefully follow the instructions for the completion of a mark reading sheet.**

(i) Suppose a question reads as follows:
An increase in the level of output...

1. decreases the level of income in the economy.
2. has no impact on the level of income in the economy.
3. increases the level of income in the economy.
4. causes firms to employ less factors of production.

The correct answer is 3. You must therefore mark ~~3~~ on your mark reading sheet.

(ii) Only one of the alternatives per question − listed as 1, 2, etc. − is correct. You must therefore not mark more than one alternative per question.
(iii) For a correct answer you receive **two ½ marks.** No marks are deducted for incorrect answers.
(iv) Section B consists of 20 questions and thus counts 50 marks out of the total of 100.

Your mark reading sheet may get lost. You MUST therefore also write your answers to this section in page … of your examination answer book, for example 1(4); 2(3); 3(1); etc.

SECTION B: COMPULSORY (50 marks)

1. Which of the following statements with regards to the consumption function $C = c_0 + cY_D$ are correct?

   a. A change in the marginal propensity to consume will result in a change in consumption.
   b. A change in income will change the marginal propensity to consume.
   c. A change in consumption will cause a change in disposable income.
   d. c_0 and c are the exogenous variables in the consumption function.
   e. Y_D is the endogenous variable in the consumption function.

   1. Only a, d and e
   2. Only b, d and e
   3. Only a, b, d and e
   4. Only a and d
   5. a, b, c, d and e

Question 2 is based on the following information regarding a goods market model for a closed economy with a government sector:

$c = 0.6$
$c_0 = 400$
$\bar{I} = 300$
$G = 300$
$T = 100$

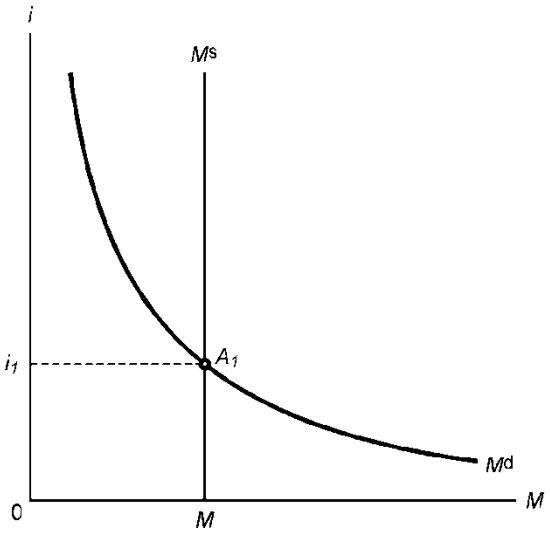
2. The multiplier is equal to ____ and the equilibrium level of output and income is equal to ____.

   1. 6 5 640
   2. 2.5 2 500
   3. 4 3 840
   4. 6 5 400
   5. 2.5 2 350

3. The impact on the equilibrium interest rate of an increase in income with simultaneous expansionary open market operations by the central bank is …

   1. a lower equilibrium interest rate.
   2. a higher equilibrium interest rate.
   3. uncertain (the equilibrium interest rate can be higher, lower or the same).

Question 4 is based on the following diagram:



4. Which of the following statements is/are correct?

   a. If the central bank wishes to increase the interest rate in the economy it sells bonds on the open market and the M^s curve shifts to the left.
   b. If the central bank wishes to increase the interest rate in the economy it buys bonds on the open market and the M^s curve shifts to the left.
   c. The demand for money function (or M^d curve) will shift because of changes in the interest rate and there will be a movement along the curve because of changes in income.
   d. The demand for money function (or M^d curve) will shift because of changes in income and there will be a movement along the curve because of changes in the interest rate.

   1. a and c
   2. a and d
   3. b and c
   4. b and d
   5. Only a

5. If the financial market is in a liquidity trap …

   a. monetary policy is ineffective in bringing about a decrease in the interest rate.
   b. financial money market participants are willing to hold less money at the same interest rate.
   c. a decrease in the interest rate can be brought about by buying of bonds by the central bank.
   d. there is a high demand for bonds.

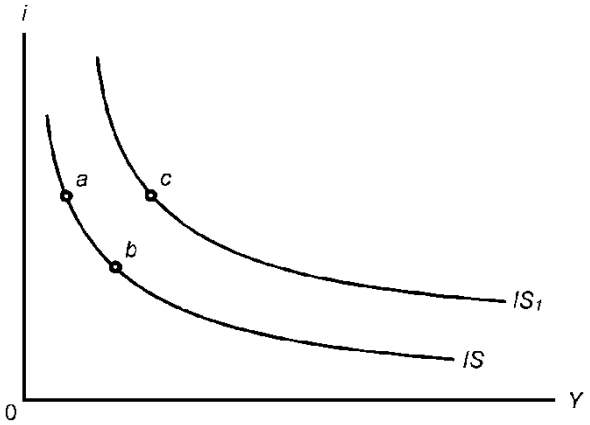
   1. Only a
   2. Only c
   3. a and c
   4. a, b and d
   5. b, c and d

6. Which of the following statements is/are correct?

   a. To derive the IS curve, we change the level of output and income to determine the effect on the interest rate.
   b. To derive the IS curve, we change the interest rate to determine the effect on the demand for goods.
   c. To derive the LM curve, we change the level of output and income to determine the effect on the interest rate.
   d. To derive the AD curve, we change the price level to determine the effect on the level of output and income.

1. Only a
2. Only c
3. a and c
4. a, b and d
5. b, c and d

Question 7 is based on the following diagram:



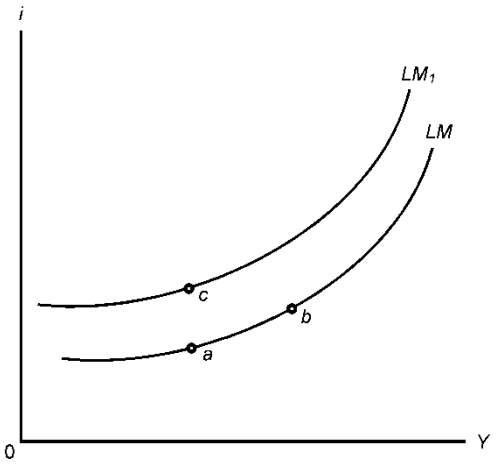
7. Which one of the following statements is correct?

    1. Goods market equilibrium exists only at points a and b.
    2. At point c the level of autonomous spending is lower than at point a.
    3. At point c the level of autonomous spending is the same as at point a.
    4. At point a the demand for goods is lower than at point b.

8. Which one of the following statements is INCORRECT?

    1. The steepness of the IS curve depends on the interest sensitivity of investment spending and the output and income sensitivity of investment spending.
    2. The size of the multiplier and the income sensitivity of the demand for money are factors that will have an impact on the effectiveness of fiscal policy.
    3. A relatively more inelastic IS curve indicates a greater interest sensitivity of investment spending.
    4. “Crowding out” of investment spending will occur if the output and income sensitivity of investment spending is low and the interest sensitivity of investment spending is high.

Study the following LM curve and answer question 9 that follows:



9. Which of the following statements is/are correct?

   a. At point a the demand for money is higher than at point b.
   b. At point c the money supply is higher than at point a.
   c. At point a, point b and point c the financial market is in equilibrium.

   1. a, b and c
   2. Only a
   3. Only b
   4. Only c
   5. Only a and c

10. Which one of the following policy actions in the IS-LM model is appropriate if the objectives are to decrease the budget deficit and decrease the interest rate?

    1. An expansionary fiscal policy and an expansionary monetary policy.
    2. An expansionary fiscal policy and a contractionary monetary policy.
    3. A contractionary fiscal policy and an expansionary monetary policy.
    4. An expansionary fiscal policy and a contractionary fiscal policy.
    5. It is not possible to achieve the policy objectives.

11. Which one the following statements is correct?

    The exogenous variables in the IS-LM model are...
    1. government spending and investment spending.
    2. investment spending and money supply.
    3. interest rate and government spending.
    4. government spending and money supply.
    5. level of output and income and the interest rate.

12. From the perspective of South Africa, an increase (appreciation) in the nominal exchange rate will cause the following to happen:

    1. The Rand becomes less expensive to foreigners.
    2. Foreign goods are more expensive to South Africans.
    3. Foreign currency is more expensive to South Africans.
    4. South African goods are more expensive to foreigners.
    5. Imports are more expensive.

13. Given the following information:
Interest rate on RSA bonds: 6%
Interest rate on USA bonds: 9%

Which one of the following statements is correct?

1. If it is expected that the R/$ exchange rate will be unchanged in a year's time, financial market participants will be indifferent between RSA and USA bonds.
2. If the expected appreciation of the rand is 2% in a year's time, investment in RSA bonds are more attractive and financial market participants will buy RSA bonds.
3. If the expected appreciation of the rand is 4% in a year's time, investment in RSA bonds are more attractive and financial market participants will buy RSA bonds.
4. If the expected depreciation of the rand is 3% in a year's time, investment in RSA bonds are more attractive and financial market participants will buy RSA bonds.

14. In an open economy the impact of an increase in the interest rate on the demand for goods and the level of output and income in the goods market can be illustrated by the following chain of events:

1. $i\uparrow \rightarrow E\downarrow \rightarrow X\uparrow \rightarrow NX\downarrow$
2. $i\uparrow \rightarrow E\uparrow \rightarrow X\downarrow \rightarrow Z\downarrow \rightarrow Y\downarrow$
3. $E\downarrow \rightarrow X\uparrow \rightarrow NX\uparrow \rightarrow Z\uparrow \rightarrow Y\uparrow$
4. $i\uparrow \rightarrow I\downarrow \rightarrow Z\downarrow \rightarrow Y\downarrow \rightarrow NX\downarrow$

Question 15 is based on the following information: Country ABC is facing a recession and an unacceptable budget deficit. To deal with the budget deficit taxes are raised and to deal with the recession the money supply is increased.

15. Which of the following statements is/are correct?

a. The IS curve will shift to the right and the LM curve will shift downwards.
b. The IS curve will shift to the left and the LM curve will shift downwards.
c. The results of these policy actions are that the interest rate increases, a capital inflow occurs, the domestic currency appreciates and the trade balance worsens.
d. The results of these policy actions are that the interest rate declines, a capital outflow occurs, the domestic currency depreciates and the trade balance improves.

1. a and d
2. b and d
3. a and c
4. b and c
5. Only b

16. Which of the following statements is/are correct?

According to the price-setting relation a(n)…

a. decrease in the unemployment rate, will increase nominal wage demands.
b. decrease in the mark-up of firms, given the nominal wage, will decrease the price per unit.
c. decrease in the nominal wage, given the mark-up of firms, will increase the price per unit.
d. increase in the unemployment rate, will decrease nominal wage demands.

1. a, b and c
2. a, b and d
3. Only b and d
4. Only a
5. Only b

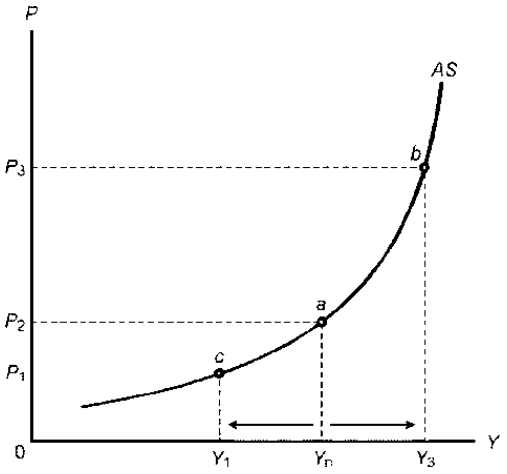
17. Which of the following statements is/are correct?

The natural rate of unemployment …

a. increases if there is an increase in the bargaining position of workers.
b. increases if there is a decrease in the mark-up.
c. decreases if there is an improvement in the protection of workers through labour legislation.
d. increases if the unemployment rate increases.

1. a and d
2. b, c and d
3. Only c and d
4. Only a
5. Only b

Question 18 is based on the following diagram:



18. Which one of the following statements is INCORRECT?

1. At point c the actual price level is lower than the expected price level.
2. At point b the output level is higher than the natural level of output.
3. At point b the real wage is the higher compared to point a.
4. As the level of output increases the price level rises.
5. The AS curve will shift upwards when the expected price level increases.

19. The chain of events: P↑ → (M/P)↓ → i↑ → I↓ → Z↓ → Y↓ represents the …

1. IS relation in the open economy.
2. effect of a monetary expansion in the AS-AD model.
3. derivation of the AD curve.
4. effect of an expansionary fiscal policy in the AS-AD model.
5. LM relation in the open economy.

20. The neutrality of money refers to the impact of a _____ policy which means that only _____ variables changes in the AS-AD model in the medium run.

1. contractionary monetary nominal
2. contractionary monetary real
3. expansionary monetary nominal
4. expansionary monetary real
5. expansionary fiscal nominal

Your mark-reading sheet can get lost and you must therefore also write down your answers for Section B in the space provided below.		
1. 1	9. 4	17. 4
2. 5	10. 3	18. 3
3. 3	11. 4	19. 3
4. 2	12. 4	20. 3
5. 1	13. 3	
6. 5	14. 2	
7. 4	15. 2	
8. 3	16. 5	

5. COMMENTS ON THE OCT/NOV 2017 MACROECONOMICS EXAMINATION PAPER (UNIQUE NUMBER 481524)

NOTE!

When marking the examination scripts it became very clear that most students did not work thoroughly through the study guide (MO001), the activities in TL102/2017 and TL103/3/2017 (where examples were given how to answer macroeconomic questions) as we indicated in our guidelines prior to the examination!

In TL102 there are many extra activities to help you to progress through the syllabus and to make sure that you understand the content. The solutions to the questions were also provided in TL102:

It was also clear that some students only worked through old examination papers without any understanding of the theoretical building blocks of the different macroeconomic models (goods market, financial market, IS-LM model in a closed and an open economy, the labour market as well as the AS-AD model).

Please work through the following comments regarding the Oct/Nov 2017 examination paper.

ECS2602: OCT/NOV 2017: Unique number 481524

QUESTION 1

This question is the same as Activity 2.41 (1, 2, 3 and 4) in TL102. See the answer to this activity in TL102. Also see the study guide MO001, section 2.4 “Using fiscal policy to influence the equilibrium in the goods market”.

QUESTION 2

This question is based on Activity 3.13 (1b) in TL102.

Most students did not differentiate between the events in the financial market and the bonds market.

Many students started with a change in interest rate. In ECS2602, we follow the traditional approach where the money supply changes first and then the interest rate changes because of the change in M^s; therefore, the chain of events cannot start with i (the interest rate).

QUESTION 3

It was very clear that many students did not study this part of the prescribed work, since most students did not answer this question properly and only referred to the impact of a depreciation on exports.

What was expected from you was to:

(i) explain the Marshall-Lerner condition by referring to the meaning of the concept,

(ii) briefly describe the POSITIVE effect and

(iii) the NEGATIVE effect and

(iv) indicate clearly that when the Marshall-Lerner condition holds the positive effect on the trade balance will outstrip the negative effect, in other words, the combination of higher exports and lower imports causes an improvement in the trade balance

See the explanation in the study guide, section 6.4 “Depreciation, the trade balance and output”.

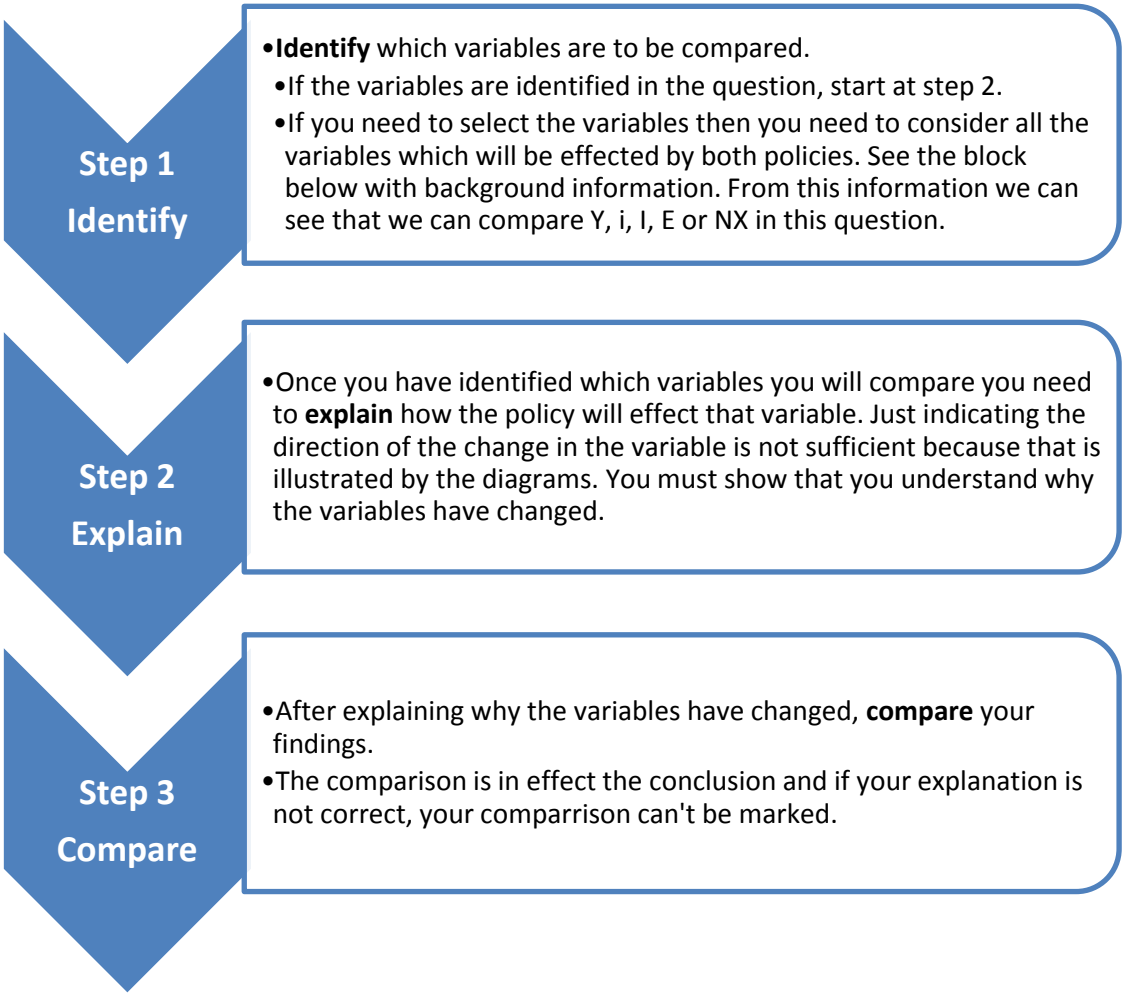
QUESTION 4

This question is based on section 7.5 in the study guide where expansionary monetary policy was compared to expansionary fiscal policy and Activity 7.6 in TL102.

Also see TL103, point 4 “COMMENTS ON THE OCT/NOV 2015 MACROECONOMICS EXAMINATION PAPER (Unique number 498796), Question 2, where a detailed explanation was given on how to answer “comparing” questions.

This diagram below is copied from TL103 as an example:

When answering a comparison question, use the following steps:



In this Oct/Nov examination 2017 the results/outcomes of the different variables were given and you were asked to explain why each of the five variables would increase or decrease and to give a reason for the change in the five variables.

Many students wasted a lot of time by repeating themselves using a chain of events as well as writing the chain of events out in words. Unless the question specifies you must use a chain of events or explain in words, you can use either. However using both a chain of events and an explanation in words is a waste of your time.

See the comparison below:

1.
Level of output and income increase in fiscal policy because of an ***increase in government spending*** (G↑), *demand for goods increases and Y increases (*$G\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$) (and/or a decrease in taxes)
($T\downarrow \Rightarrow Y_D\uparrow \Rightarrow C\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$)
while the level of output and income increase in monetary policy because of the increase in money supply ***the interest rate decreases, investment spending increases, demand for goods increases and income increases*** *(*$M\uparrow \Rightarrow i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$)

2.
Interest rate increases in fiscal policy because of an increase in level of output and income $Y\uparrow$, therefore the **demand for money increases** that leads to an increase in the interest rate
($Y\uparrow \Rightarrow M^d\uparrow \Rightarrow i\uparrow$)
while the interest rate decreases in monetary policy because of the ***increase in the money supply***
($M\uparrow \Rightarrow i\downarrow$)

3.
In fiscal policy, there is capital inflow on financial account of the balance of payments because the ***domestic interest rate is higher*** *as compared to the world interest rate (*i↑ ⇒ bonds more attractive)
while a capital outflow occurs in monetary policy because the ***domestic interest rate is lower*** *as compared to the world interest rate (*i↓ ⇒ bonds less attractive)

4.
Exchange rate appreciates in fiscal policy because an increase in domestic interest rate relative to the world interest rate causes a capital inflow and consequently exchange rate appreciates ***(i↑ ⇒ E↑)***
while the exchange rate depreciates in monetary policy because a decrease in interest rate causes a capital outflow and consequently the exchange rate depreciates **(i↓ ⇒ E↓)**

5.
In fiscal policy the trade deficit increases due to the exchange rate appreciation that makes exports become relatively more expensive leading to less exports or more imports
(E↑ ⇒ X↓ and/or IM↑ ⇒ NX↓)
while in monetary policy the trade deficit decreases due to exchange rate depreciation that makes exports relatively cheaper and imports more expensive (E↓ ⇒ X↑ and/or IM↓ ⇒ NX↑)

QUESTION 5

It was clear that most students did not study the labour market. The answer to this question can be found on page 163 of the study guide.

Reason: Labour tries to obtain a higher real wage through an increase in nominal wages but firms respond by increasing the price level of the goods and services, thus leaving both the real wage and their share of total production unchanged.

Two ways in which labour can obtain a higher real wage in this labour market model:

(1) If firms *decrease* their mark-up *or* lower price level of goods and services.

(2) If productivity of workers increases *or* production of goods and services increases *or* if more goods are produced per unit of labour.

QUESTION 6

In this question as well, students wasted a lot of time by answering this question using both a chain of events and a detailed explanation in words of each chain of events.

Firstly, it was important to identify the variable of a **contractionary monetary policy**, namely a decrease in the money supply. Therefore, the chain of events will start with a decrease in money supply. Since we follow the traditional approach in ECS2602, where the money supply changes first and the interest rate changes because of the change in M^s the chain of events cannot start with i (the interest rate).

USING CHAIN OF EVENTS:

In the short run

Financial market: M↓ ⇒ M/P↓ ⇒ i↑
Goods market: i↑ ⇒ I↓ ⇒ Z↓ ⇒ Y↓
Labour market: Y↓ ⇒ N↓ ⇒ u↑ ⇒ W↓ ⇒ P↓

In the medium run

In the medium run, the expected price level will change
Labour market: $P^e\downarrow \Rightarrow W\downarrow \Rightarrow P\downarrow$
Financial and goods market: $P\downarrow \Rightarrow M/P\uparrow \Rightarrow i\downarrow \Rightarrow I\uparrow \Rightarrow Z\uparrow \Rightarrow Y\uparrow$

Alternatively, in words:

In the short run

Financial market: To decrease the money supply, the central bank sells bonds on the financial market. As a result, the real money supply decreases and the interest rate increases.

Goods market: An increase in the interest rate decreases investment spending which decreases the demand for goods and the level of output and income.

Labour market: A fall in the level of output decreases the level of employment, and the unemployment rate increases and the bargaining position of workers decreases. Given this decrease in the bargaining position of workers, the nominal wage decreases. Firms react to this decrease in wages by decreasing the price level.

In the medium run

Labour market

At point b, the expected price level on which workers based their real wage negotiations turned out to be higher than the actual price level. They revised their expected price level downwards and negotiated for lower wages. In reaction to the lower nominal wages, firms decreased the price level.

Financial and goods market

As the price level decreases, the real money supply increases in the financial market leading to a fall in the interest rate. The decrease in the interest rate causes firms to increase their investment spending, and aggregate demand and the level of output and income therefore increase.

See section 9.4 in the study guide where an increase in money supply was explained. This exam question refers to the opposite direction, namely a decrease in money supply. See also Activity 9.7 in TL102.

Note that no marks were awarded if the wrong policy was explained, namely fiscal policy (G and/or T) or expansionary monetary policy (M↑) since the question clearly refers to contractionary monetary policy.