THE UNIVERSITY OF ZANMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

2015/2016 ACADEMIC YEAR

MID YEAR FINAL EXAMS

1. BBA 2210 : PRINCIPLES OF ACCOUNTING
2. BBA 2421 : BUSINESS MATHEMATICS
3. BBA 3115 : HUMAN RESOURCE MANAGEMENT
4. BBA 3235 : TAXATION
5. EC 3235 : PUBLIC FINANCE
6. ECN 1115 : INTRODUCTION TO MICRO ECONOMICS
7. ECN 2115 : INTERMEDIATE MICRO-ECONOMICS
8. ECN 2215 : INTERMEDIATE MICROECONOMICS THEORY-PARALLEL
9. ECN 1215 : INTRODUCTION TO MACROECOMIC THEORY
10. ECN 2215 : INTERMEDIATE MACRO-ECONOMICS
11. ECN 2331 : STATISTICS-THEORY AND TECHNIQUES FOR ECONOMICS
12. ECN 3115 : ADVANCED MICROECONOMICS THEORY
13. ECN 3225 : MONEY AND BANKING- PARALLEL
14. ECN 3225 : MONEY AND BANKING

15. ECN 3235 : PUBLIC FINANCE

16. ECN 4121 : INTERNATION TRADE THEORY AND PRACTICE

17. ECN 4145 : ENVIRONMENTAL ECONOMICS

18. ECN 4235 : DEVELOPMENT ECONOMICS

19. ECN 9125 : INDUSTRIAL ORGANISATION

20. ECN 9415 : HISTORY OF ECONOMIC THOUGHT

21. SOC 3110 : URBAN SOCIOLOGY

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2015/ 2016 ACADEMIC YEAR
MID YEAR FINAL EXAMINATIONS

BBA 2210: PRINCIPLES OF ACCOUNTING
TIME: THREE (3) HOURS
INSTRUCTIONS: ATTEMPT **ALL** QUESTIONS

QUESTION ONE

The following trial balance was extracted from the books of F. Sorley on 30 April 2016. From it, and the note about inventory, prepare his income statement for the year ending 30 April 2016, and a statement of financial position as at that date.

	Dr.	Cr.
	$	$
Sales		210,420
Purchases	108,680	
Inventory	9,410	
Carriage outwards	1,115	
Carriage inwards	840	
Returns inwards	4,900	
Returns outwards		3,720
Salaries and wages	41,800	
Motor expenses	912	
Rent	6,800	
Sundry expenses	318	
Motor vehicles	14,400	
Fixtures and fittings	912	
Accounts receivable	23,200	
Accounts Payable		14,100
Cash at bank	4,100	
Cash in hand	240	
Drawings	29,440	
Capital		18,827
	247,067	**247,067**

QUESTION TWO

Give a definition of the following accounting concepts; *(Additional marks will be awarded if relevant examples are given in each definition).*

a. The Going concern concept
b. The accruals basis
c. The business entity concept
d. The historical cost concept
e. The dual aspect concept
f. Materiality concept
g. Substance over forms
h. Prudence concept

QUESTION THREE

On 1 June 2016 a company held 300 units of finished goods in inventory. These were valued at $12 each. During May 2016 three batches of finished goods were received into the store from the production department as follows;

Date	**Units received**	**Production cost/unit ($)**
10th May	400	12.5
20th May	400	14
25th May	400	15

Goods sold out of inventory during May were as follows;

Date	**Units sold**	**Sale Price per unit ($)**
14th May	500	20
21st May	500	20
28th May	100	20

Using FIFO and AVCO, calculate the closing inventory in each case.

QUESTION FOUR

A. You are to show journal entries necessary to record the following items which occurred in 2016;

a) **May 1**:Bought a van on credit from Banda for K6 000.
b) **May 3**:A debt of K100 owing from Musonda was written off as bad debt.
c) **May 8**:Office furniture bought by us for K600 was returned to the supplier Hamusonde Ltd, as it was unsuitable. Full allowance will be given to us.

d) **May 12**: We are owed K500 by Phiri. He is declared bankrupt and we received K200 in full settlement of the debt.
e) **May 14**: We take goods costing K20 out of the business inventory without paying for them.
f) **May 28**: Some time ago we paid an insurance bill thinking that was all in respect of the business. We now discover that K80 of the amount paid was in fact insurance of our private home.
g) **May 28**: Bought machinery for K2 400 on credit from Jameson Electronics

B. A journal is one of the six books of original entry;

i. List Five (5) typical uses of the journal

ii. List the other five (5) books of original entry

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015/2016 ACADEMIC YEAR
MID-YEAR FINAL EXAMINATIONS

BBA 2421:	BUSINESS MATHEMATICS
TIME:	THREE (3) HOURS
INSTRUCTIONS:	ANSWER **ALL QUESTIONS** IN ANY ORDER OF YOUR CHOICE, AND CLEARLY SHOW ALL YOUR WORK

QUESTION ONE

State whether the following statements are true, false or uncertain.

I. At the breakeven point, a firm's profits are positive.

II. Both simple interest and simple discount are calculated on the principal amount.

III. With simple interest, the invested amount grows nonlinearly

IV. Compound interest is calculated on the principal amount

V. Reduced net profit occurs when the selling price of an item is below the breakeven point but above the cost of the item.

VI. Both the NPV and the internal rate of return methods recognize that the timing of cash flows affects project value.

VII. For mutually exclusive projects, the project with the higher IRR (and not the number of profitable years) is the correct selection.

VIII. When calculating IRR using the trial and error process, discount rates should be raised when NPV is positive.

IX. An investor fails to reject the project if the cost of capital is less than the internal rate of return

X. An NPV of zero suggest that the rate of return is equal to the discount rate

XI. Ordinary interest yield higher revenues to the lender relative to exact interest

XII. An annuity is a stream of equal payments.

XIII. The net cost equivalent is simply the total discount

XIV. The IRR may fall outside the interval of discounts rates used to compute it.

XV. A debt is said to be amortized if it is extinguished at the end of the amortization?

QUESTION TWO

a) *Potbelly Lufumo* is considering whether to launch a new soya beans seed. The annual rate of return on a similar risk project is 8%, the cash flows occur semi-annually, and this company requires a payback period of 2 years. Furthermore, the financial officer from the financial department has calculated that the cost of buying a farm is K11,500 per hectare ,other costs add up to K77, 000 and the required rate of return for all projects that it will consider is 15%. Given that the firm buys 22 hectares of land and the semi-annual cash inflows are K75, 000 and K100, 000 in year 1, and K125, 000 and K100, 000 in year 2. Calculate the payback, discounted payback and IRR for the project. Hence, should you accept the project? Why?

b) Briefly explain three advantages of using the Net Present Value (NPV)

c) State and briefly explain three short comings associated with the Internal Rate of Return

QUESTION THREE

Game Stores has a choice of three suppliers of laptops. Suppliers 1, 2 and 3 offer a series discount of 20/10/25, 20/30 and 40/10/5 on a list price of K 3200, K3100 and K3200 per laptop respectively.

a) What is the discount from each supplier?

b) Which supplier gives *Game stores* a lower price?

c) Assuming *Game Stores* buys 50 laptops, how much does it save by buying from the lower-priced supplier?

Suppose an invoice received from *Game Stores* for K2, 800 is dated March 20, and offers terms 5/15,n/30. If the invoice is paid on April 4 and the shipping and insurance charges are K125, find

d) The last date on which the 5% discount may be taken

e) The net payment date

f) Find the amount due

QUESTION FOUR

a) Distinguish between simple interest and compound interest

b) First National Bank (FNB) offered *"Good Life"* a loan amounting to K100, 000 at an interest rate of 7% in order to allow *"Good Life"* to facilitate the acquisition of land in state lodge. Compute the interest due and the amount repaid if the

   I. The loan is due in 7 months

   II. The loan was taken out on April 7 and is due in 8 months

   III. The loan was taken out for 45 days

c) A loan officer at First National Bank had also given *"Good Life"* an option of contracting the K100, 000 loan and repaying K120, 000 within two months. What would have been the appropriate annual interest rate if the loan was repaid

   I. On the 30^{th} day

   II. At the end of two months

d) Suppose FNB's loan officer persuaded *"Good Life"* to obtain a 180-day loan of K90, 000 at 9.5%, determine

   I. The exact simple interest

   II. The ordinary simple interest

QUESTION FIVE

"Dinda Signs and Company" has found space where to build their office infrastructure. Because of the growing demand for Dinda's products, *Dinda Signs and Company* approaches Barclays Bank and signs a 10-week simple discount note that has a maturity value of K150, 000 and discounted at 24%. Calculate

a) The bank discount

b) The amount that *Dinda Signs and Company* receives from Barclays Bank (i.e. the proceeds)

c) Suppose *Dinda Signs and Company* wants to borrow the K150, 000 from Barclays and signs a 10-week simple discount note with Barclays Bank at 24% discount rate. Find the face value corresponding to the 10-week simple discount note.

d) Briefly explain the concept of Amortization.

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015 ACADEMIC YEAR
MID-TERM FINAL EXAMINATIONS

BBA 3115: HUMAN RESOURCE MANAGEMENT
TIME: THREE (3) HOURS
INSTRUCTIONS: ANSWER **THREE** QUESTIONS IN ALL. **QUESTION ONE IS COMPULSORY.**

QUESTION ONE (COMPULSORY)
Compare and contrast human resource and personnel management .To what extent is it desirable and important to differentiate between the two concepts.

QUESTION TWO
The role of the human resources function in an organization may be perceived as supportive, advisory and strategic. Discuss this statement.

QUESTION THREE
Today's business environment produces change in organizations more suddenly and frequently than ever before. The ability to adapt to changing work conditions is a key for the individual and organizational survival. Discuss this assertion.

QUESTION FOUR
What are the objectives and principles of wage and salary administration? Describe how a salary survey would link to these objectives and principles.

QUESTION FIVE
What are the factors influencing the recruitment and selection of staff in organizations. Kindly further illustrate with examples.

QUESTION SIX
Analyze the significance of performance appraisal, and at least four approaches to the measurement of employee performance.

END OF FINAL EXAMINATION

HRM EXAM QUESTIONS FOR BBA 3115

Compulsory Question

1. Compare and contrast human resource and personnel management .To what extent is it desirable and important to differentiate between the two concepts.

Choose two from the questions listed below.

2. The role of the human resources function in an organization may be perceived as supportive, advisory and strategic. Discuss this statement.

3. Today's business environment produces change in organizations more suddenly and frequently than ever before. The ability to adapt to changing work conditions is a key for the individual and organizational survival. Discuss this assertion.

4. What are the objectives and principles of wage and salary administration? Describe how a salary survey would link to these objectives and principles.

5. What are the factors influencing the recruitment and selection of staff in organizations. Kindly further illustrate with examples.

6. Analyze the significance of performance appraisal, and at least four approaches to the measurement of employee performance.

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MID YEAR FINAL EXAMINATIONS

BBA 3235: TAXATION
TIME: THREE (3) HOURS
INSTRUCTIONS: ATTEMPT **ALL** QUESTIONS

QUESTION ONE

a) Zibazako Limited is a Zambian company that distributes cotton and other raw materials to clothing companies. The company is registered for Value Added Tax and for the month of March 2016, the company produced the following management accounts:

	K	K
Sales		999,500
Cost of sales:		
Opening stock	5,000	
Purchases	628,000	
	633,000	
Less closing stock	(6,500)	
Cost of sales		(626,500)
Gross profit		373,000
Less Expenses:		
Depreciation	12,500	
Bad debts written off	65,000	
Overheads	106,000	
General expenses	123,000	
Total expenses		(306,500)
Net profit		**66,500**

The following information is also relevant:

(1) Exempt supplies taken as a portion of total sales amount to 10%. Included in the remainder are zero rated supplies of K125, 000.

(2) 20% of the standard rated sales were made to customers who are not registered for Value Added Tax purposes.

(3) Purchases included exempt supplies whose value is K150,000. The remainder of the purchases are standard rated for Value Added Tax purposes.

(4) 50% of the standard rated purchases were from non-Value Added Tax registered suppliers.

(5) The bad debts were written off on 31 March 2015. The figure consist of two invoices of K32,500 each in respect of which payment was due on 1 September 2013 and on 31 December 2013.

(6) The overheads are all standard rated supplies for the purposes of Value Added Tax.

(7) The figure for general expenses is inclusive of Value Added Tax (VAT) and is made up of:

	K
Entertaining customers who are VAT registered	26,500
Telephone bills	40,000
Diesel	56,500

Unless stated otherwise, all the above figures are VAT exclusive.

Required:

(i) Calculate the amount of VAT payable or repayable for the month of March 2016.

(ii) State the latest date by which VAT for the month of March 2016 should be paid and explain the implications of paying the VAT later than that date.

b) Explain how making exempt supplies differs from making zero rated supplies for the purposes of VAT.

c) In relation to Value Added Tax, explain what is meant by each of the following:

(i) Registration

(ii) De-registration

(iii) Tax invoice

d) Explain the importance of a tax point for the purpose of Value Added Tax

QUESTION TWO

Kasonde who has been in business for many years has always prepared her accounts for the years ending on 31 March. After preparing accounts for the year ended 31 March 2013, she intends to change her accounting date to 30 September by preparing accounts for the period of eighteen months ending 30 September 2014.

The recent tax adjusted profits have been as follows:

	Profits
	K
y/e 31.03.2013	88,800
p/e 30.09.2014	180,000
y/e 30.09.2015	89,000

Required:

Show the taxable business profits for each of the tax years 2012, 2013, 2014 and 2015

QUESTION THREE

(a) Choolwe had been engaged on a three year renewable contract which expired on 30 September 2015. Choolwe had been notified by his employer that the contract had been renewed with effect from 1 October 2015 for a further three years.

During the period of three years he worked on his previous contract, his annual salaries had been as follows:

	K
Year from 1 October 2012 to 30 September 2013	236,000
Year from 1 October 2013 to 30 September 2014	264,000
Year from 1 October 2014 to 30 September 2016	280,000

In each of the years, the annual basic salary was payable to Choolwe on the last day of each month. Choolwe pays 5% of his annual salary into the National Pension Scheme Authority (NAPSA). In addition, he also contributes 10% of his annual salary into the employer's approved fund from which he will receive a benefit after no renewal of the contract will be agreed upon.

From 1 October 2014, Choolwe had been entitled to an education allowance of K 10,000 each year to enable him do further studies as a local university over a three year period until 30 September 2017. The allowance is payable in full on 5 October of each year, with the first payment having been made on 5 October 2014. This allowance has therefore continued under a new contract under which the annual basic pay has also been increased to K 295,000 payable monthly on the last day of each month.

The contract term under both the first and second contract is that Choolwe is entitled to a gratuity of 30% of his cumulative basic salary earned throughout the contract period payable upon the expiry of the contract. The earned gratuity is still payable if the contract is terminated before the expiry date. In addition, any accrued leave pay is payable together with the gratuity upon the expiry or termination of the contract for whatever reason. The amount of the accrued leave pay as at 30 September 2015 was K110, 000 in respect of leave not taken for the year ended 30 September 2015.

Required:

Calculate the Income Tax paid by Choolwe for the tax year 2015 and explain how it will have been appropriately paid.

(b) Emoluments from employment are taxable under the Pay As You Earn System. Under the system, the obligations related to taxation of employees are transferred to the employer. The basis of the assessment for emoluments from employment or from holding an office is actual receipts basis.

Required:

(i) Explain the meaning of the terms emoluments, employment and office for the purpose of the Pay as You Earn systems.

(ii) Explain the actual receipts basis of assessing the emoluments from employment to income tax and explain how it is applied.

(iii) Explain the tax consequences of late payment of income tax deducted from emoluments under the Pay As You Earn system.

QUESTION FOUR

Patrick and his son, Caleb buy second hand motor cars from Japan which the sell within Zambia.

Caleb has recently been visited by a friend of his, who has informed him that their activities are likely to indicate that they are carrying on a trade whose income is taxable in Zambia.

Required:

Describe the tests (badges of trade) that the Zambia Revenue Authority and the Courts would use in order to establish whether Patrick and Caleb are carrying on a trade.

QUESTION FIVE

Laura, who has been in business for many years ceased to trade on 30 June 2015. She had always prepared accounts to 31 December each year but the last accounts were prepared for the period of eighteen months from 1 January 2013 to 30 June 2014

The tax adjusted profit for eighteen months' period was K90,000, before deduction of the capital allowances.

The income tax values on assets qualifying for capital allowance at 1 January 2014 were as follows;

Asset	ITV at 1 January 2014	Original Cost
Motor Car	K9,000	K15,000
Fixtures and fittings	K5,000	K10,000
General Plant	2,500	K5,000

Laura had private use in Motor car of 25% on 30 June 2014, Laura sold the assets at the following values:

Assets	Disposal
Motor Car	K4,000
Fixtures	K12,500
General Plant	K3,000

Required:

Prepare a computation of profits chargeable for the final two (2) charge years of trading.

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES & SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

COURSE:	EC 3235 (PUBLIC FINANCE)
DATE:	15th July 2015
Maximum Time Allowed:	2 Hours
General Instruction:	Answer all questions in sections A and B and choose either question 5 or question 6 in section C

SECTION A

Question 1

Study the statements (a) to (e) carefully and for each statement, state whether **TRUE (T) or FALSE (F) or UNCERTAIN (U)** and then briefly **JUSTIFY** your answer.

(a) Suppose Government decides to change the tax regime of industry X such that if a firm in that industry make a profit of up to Y, the tax rate on profit is 10 percent (as before the change) while for any for any profits above Y the rate is 15 percent. If firm Z which consistently makes profits above Y decides to leave industry X due to such a change, the decision is an example of the substitution effect of taxation.

(b) Assuming there are only 3 individuals (A, B and C) in an economy. If for the 5th unit of a public good, A is willing to pay K 10; B, K100; and C, K 50, then Government should produce the 5th unit of the public good if the marginal cost is less than or equal to K 100.

(c) In the provision of public goods, the primary cause of the free-rider problem is non-rivalry.

(d) According to the public choice theory on public expenditure, governments in democratic societies choose the level of expenditure that maximizes the welfare of voters so as to maximize their chances of winning elections.

(e) A tax imposed on wage income whose substitution and income effects offset each other does not alter the supply of labour and is therefore equivalent to a lump-sum tax.

SECTION B

Question 2

Given a monopoly firm with constant elasticity demand ($X=P^e$), where X is the quantity demanded, P is the price and e is the price elasticity of demand, show that imposition of a per unit tax t will be over-shifted onto the consumer. Be sure to state all relevant assumptions.

Question 3

Define a tax and hence or otherwise define tax incidence. What is meant shifting of tax burden?

Question 4

Briefly explain how asymmetric information may lead to moral hazard and adverse selection

SECTION C

Question 5

(a) Compare and contrast *Tax Evasion* and *Tax Avoidance*.

(b) State and explain key factors that tend to worsen tax evasion and/or avoidance (give a practical example for each factor).

(c) What policy and administrative measures would you put in place to curb tax evasion or avoidance?

Question 6

(a) Discuss factors that tend influence levels of public expenditure.

(b) How does public expenditure affect income distribution, aggregate consumption and levels of employment?

(c) Define public *sector debt* and then outline and briefly describe factors that make most governments predisposed to budget deficits?

END OF TERM FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2015/2016 ACADEMIC YEAR
MID- YEAR FINAL EXAMINATIONS

ECN 1115: INTRODUCTION TO MICRO ECONOMICS
TIME: TWO HOURS

INSTRUCTIONS: Attempt **ALL QUESTIONS IN SECTION ONE**. Attempt **ANY TWO** questions in Section Two

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SECTION ONE (Attempt all questions from Section One)

Question One

i. Given the price of a ticket to a film show of K41 and at that price, the quantity of tickets demanded is 17,000 per show. Using the midpoint method of calculating percentage changes, if the price is raised to K48 and the quantity demanded decreases to 16,000 what is the elasticity of demand.

ii. When the price of a bun increases from K2 to K4, the quantity demanded decreases from 50 to 40. Using midpoint (arc) method, compute the price elasticity of demand.

iii. A firm can sell 10 units if the price is K100 and can sell 8 units if the price is K125. Using the midpoint (arc) method, what is the price elasticity of demand?

iv. During last year the price of regular unleaded fuel increased by 11.0 per cent. If the price elasticity of demand for fuel gasoline was 0.13, compute the change in quantity demanded due to the price increase.

v.

Price (kwacha per skirt)	Quantity demanded (skirts per year)
20	30
35	25

Using the data in the table above, what is the PED when the price of a skirt rises from K20 to K35? From the answer, what is the nature of elasticity?

vi. Define price elasticity of supply. Suppose the current price of barley is K7 per Kilo, at that price 100,000 kilos are grown by a farmer. If the price of barley rises to K8 and quantity supplied increases to 130,000 kilos, use the midpoint method to determine the price elasticity of supply for barley.

vii. What type of goods are two goods which if a 1 per cent increase in the price of *X* increases the quantity demanded of *Y* by 2 per cent? What is the cross price elasticity of demand?

viii. A board factory, Mainza Board Factory (Mainza's), rents equipment for shaping boards and hires students. The table sets out Mainza's total product schedule. Construct Mainza's 's marginal product and average product schedules. Over what range of workers do marginal returns increase?

Labor (workers per day)	Total product (units of boards per day)
0	0
1	20
2	44
3	60
4	72

ix. Use the following information to work the problems that follow:-
Assume:

a. Mainza's board factory pays K60 a day for equipment and
b. K200 a day to each student it hires.
c. The table above has previously set out Mainza's total product schedule.

1. Construct Len's total variable cost and total cost schedules. What does the difference between total cost and total variable cost at each output equal?

2. Construct the average fixed cost, average variable cost, and average total cost schedules and the marginal cost schedule.

x. The table shows the costs incurred at Pete's dairy farm. Complete the table.

Labour	Total Product (TP)	Total Variable Cost (TVC)	Total Cost (TC)	Average Fixed Cost (AFC)	Average Variable Cost (AVC)	Average Total Cost (ATC)	Marginal Cost (MC)
0	0	0	100				
1	10	35					
2	24	70					
3	38	105					
4	44	140					

SECTION TWO (Answer any TWO Questions)

Question Two

In the questions below, clearly outline the answers with the support of diagrams wherever applicable.

Tomato production is a competitive industry, in which the tomato farmers all have the same cost curves. You are given the following information and you have to answer the questions that follow:

i. Tomatoes are selling for K15 per kilogramme
ii. Each grower maximises profit by producing 1,500 kg per week
iii. The average total cost of production is K21 per kg
iv. The minimum average total cost is K18 per kg

A. What is the economic profit in the short run? (Your answers for both question A and B should be supported by the necessary diagrams)
B. Show the long run equilibrium situation and explain how the number of tomato growers changes in the long run.

Question Three

Compare the pricing and output decisions under perfect competition and monopoly. What would you conclude from your analysis?

Question Four

Why would you expect that the production of electricity or copper according to some arguments would be better served by having a monopoly. What type of monopoly is this known as?

Question Five

If you have two classes of air travelling clientele e.g. businessmen and student backpackers, how would an airline that is a monopoly maximise its profits?

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
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2015/2016 ACADEMIC YEAR
MID YEAR FINAL EXAMINATIONS

ECN 2115: INTERMEDIATE MICRO-ECONOMICS
TIME: TWO (2) HOURS
INSTRUCTIONS: ANSWER **ALL QUESTIONS**.

QUESTION ONE

Given that a two representative consumer in Zambia has the following utility functions: $\mu^1 = \mu(j,k)$ and $\mu^2 = \mu(j,k)$. The total resource endowment for consumer 1 and 2 are fixed for goods j and k.

(i) Determine by clearly deriving Pareto optimal conditions of pure exchange of general equilibrium.
(ii) With the aid of an appropriate diagram, show how these consumers would remain in equilibrium.
(iii) State the Walrasian law.
(iv) Mathematically show how the Walrasian equilibrium is reach.

QUESTION TWO

(a) A Zambian fast food shop selling fried chickens has hired a consultant to help it compete with South African fast food shops which have dominated business in the area. Most of the fast food business is handled by the South African shops. The local Zambian shop operates as a price taker. Using historical data on costs, the consultant finds that short-run total costs each day are given by:

STC = $10 + q + 0.1q^2$, where q is daily fried chicken production

(i) What is this price-taking firm's short-run supply curve?
(ii) Does this firm have a shutdown price? What is this price?
(iii) The consultant claims that short-run average cost reaches a minimum at q=10. Verify this claim without using calculus.
(iv) Currently the price of a piece of fried chicken is K2 because one major fast food chain is having a sale. Because this price does not cover average costs, the consultant recommends that the Zambian shop cease operations until the sale is over. Do you agree? Explain.

(b) It is said that Monopoly is a bad thing for consumers, but a good thing for producers. Illustrate this argument.

QUESTION THREE

First Quantum Minerals (FQM) is one of Zambia's leading copper producing mining companies produced in excess of 1 Million tons of copper in its 2013 financial year. This triggered a further expansion of the mining area that include and agricultural area for beans and watermelons plus a huge hectares of forest- including Kansanshi river the source of water and fish for a local residents and Copper-belt, has compromised due to seepages.

(a) List and explain some sources of market inefficiencies of FQM operations [6 Marks]

(b) You are employed as an economist in the Ministry of Mines and Mineral Development, and the community of Kansanshi complained of the mining operation situation to the Minister for North Western province who further approached the permanent secretary, Ministry of Mines. You are called upon to offer advice that would restore Kansanshi river as a source of cheaper protein and clean drinking water. What advice would you give?

QUESTION FOUR

Dangote Cement Company has employed a Cobb-Douglas technology to produce cement on a large scale in order to meet the demand. Suppose the Cobb-Douglas function takes the form $Q = AK^{\alpha}L^{\beta}$, where Q, A, K, and L represent output produced, technology, capital, and labour respectively and that the factor prices are given by w (wages) and r (cost of capital), use the lagrangian multiplier method to

(i) Write down Dangote Cement Company's cost minimization problem.
(ii) Find the conditional input demand functions K* (w, r, Q) and L* (w, r, Q)
(iii) Find the lagrangian multiplier, and what is its interpretation?
(iv) Derive the total cost function C (w, r, Q) and find $\frac{dC}{dQ}$
(v) Suppose w=K30, r=K40, Q=1500 bags, A=0.5, α=0.5, and β=0.5, calculate

(a) Dangote's cost minimising quantities of capital and labour

(b) Dangote's total cost at the optimal point

(vi) Suppose that Dangote Cement Company is a price taker and wishes to maximise profits in the short run. This therefore means that the Cobb-Douglas function takes the form $Q = A\overline{K}^{\alpha}L^{\beta}$, where capital is fixed in the short run. Derive the Dangote's short run supply curve, and find and interpret

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
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2015/2016 ACADEMIC YEAR
MID-YEAR FINAL EXAMINATIONS

ECN 2115:	INTERMEDIATE MICROECONOMICS THEORY – PARALLEL
TIME:	TWO (2) HOURS
INSTRUCTIONS:	ANSWER **ALL QUESTIONS**

QUESTION ONE

a) State and explain the axioms of consumer theory

b) Notwithstanding the assumptions in (a) above, state and explain the assumptions underpinning well-behaved preferences.

c) Drink Water is a second year "monk" student with the following utility function

$$U(X,Y) = 2\sqrt{XY}$$

Where X= Bread and Y=Eggs. Given that Drink Water has a budget of K128 and that a unit of Bread costs K8 and a tray of eggs costs K32,

I. Find the optimal consumption of Bread and Eggs using the lagrangian multiplier method

II. Compute the level of utility at this optimal consumption level.

III. Suppose that Drink Water receives a grant that increases his budget by K5, use the lagrangian multiplier method to determine his new utility level.

IV. The depreciation of kwacha against the US dollar has led to an increase in the cost of bread and tray of eggs by K3 and K8 respectively. Determine Drink Water's new utility maximizing bundle.

QUESTION TWO

In Zambia, ZESCO has a monopoly in the generation and distribution of electricity and strives to maximise profits. Suppose ZESCO faces the following average revenue (demand) curve $P(Q) = 200 - 0.03Q$ where Q is the daily production and P is the price charged to consumers in Kwacha per unit and that ZESCO's cost function is given by

$C(Q) = 75Q - 20000$,

a) What is the daily level of production, price, and total profit given that ZESCO maximises profits?

b) Show graphically ZESCO's optimal daily production level, price and profits.

c) Assume that the Government imposes a per unit tax on ZESCO's daily production, re-calculate ZESCO's new daily production, price, and total profits.

d) Compare a perfectly competitive firm and a monopolist with respect to how the two firms make the following decisions:

I. How much to produce

II. What to charge

III. Whether or not to shut down in the short run

IV. What happens in the long run if losses continue?

e) It is argued that Monopoly is a bad thing for consumers, but a good thing for producers. Illustrate this argument.

QUESTION THREE

Dangote Cement Company has employed a Cobb-Douglas technology to produce cement on a large scale in order to meet the demand. Suppose the Cobb-Douglas function takes the form $Q = AK^{\alpha}L^{\beta}$, where Q, A, K, and L represent output produced, technology, capital, and labour respectively and that the factor prices are given by w (wages) and r (cost of capital), use the lagrangian multiplier method to

a) Write down Dangote Cement Company's cost minimization problem.

b) Find the conditional input demand functions $K^*(w, r, Q)$ *and* $L^*(w, r, Q)$

c) Find the lagrangian multiplier, and what is its interpretation

d) Derive the totalcost function $C(w, r, Q)$,and find $\frac{dC}{dQ}$

e) Suppose $w = K30$, $r = K40$, $Q = 1500\ bags$,$A = 0.5, \alpha = 0.5$, and$\beta = 0.5$, calculate

I. Dangote's cost minimising quantities of capital and labour

II. Dangote's total cost at the optimal point

f) Suppose that Dangote Cement Company is a price taker and wishes to maximise profits in the short run. This therefore means that the Cobb-Douglas function takes the form $Q = A\bar{K}^{\alpha}L^{\beta}$, where capital is fixed in the short run. Derive the Dangote's short run supply curve, and find and interpret $\frac{dQ}{dP}$

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015 ACADEMIC YEAR
MID-TERM FINAL EXAMINATIONS

ECN 1215: INTRODUCTION TO MACROECONOMIC THEORY
TIME: TWO (2) HOURS
INSTRUCTIONS: ANSWER **ALL** QUESTIONS.

SECTION A: MULTIPLE CHOICE

1) Which of the following would be included in the income approach to measure GDP?
   a. Wages, profits, rents
   b. Wages, profits, investment spending
   c. Wages, rents, investment spending, consumption spending
   d. The value added in production
   e. None of the above.

2) The price index that is most frequently reported in the news is the
   a. Consumer price index (CPI)
   b. Producer price index (PPI)
   c. Earnings index
   d. Implicit price deflator (The GDP deflator)
   e. Export price index

3) In the traditional macroeconomic model's basic identity, Y= C + I + G + NX, which of the following is true?
   a. The household sector is assumed to only engage in consumption spending, C.
   b. The business sector is assumed to engage in investment, I.
   c. The government sector is assumed to only engage in government (consumption) spending, G.
   d. Neither the household sector nor the government sector is assumed to engage in investment or production.
   e. All of the above.

4) The labor force participation rate is
   a. the number of people in the labor force divided by the population
   b. the number of people in the labor force divided by the civilian, noninstitutionalized age 16 and over population
   c. the number of people in the noninstitutionalized age 16 and over population divided by the labor force.
   d. the number of unemployed divided by the labor force
   e. the number of unemployed divided by the civilian, noninstitutionalized age 16 and over population

5) Mwase is currently not employed, but it thinking about getting a job and is browsing through the want ads to see what kinds of jobs are available. The Central Statistical Office (CSO) would consider Mwase to be:
   a. unemployed
   b. in the labor force

c. not in the labor force
d. a discouraged worker
e. none of the above

6) Elinah lost her real estate agent job after the housing bubble burst, and after several months of an unsuccessful job search, she has stopped looking and entered a job retraining program to become a nurse. The Central Statistical Office (CSO) would currently count Elinah as:

a. employed
b. unemployed
c. in the labor force
d not in the labor force
e. seasonally unemployed

7) Suppose the population is 300 million. There are 146 million employed, and 7.2 million unemployed. Then the unemployment rate is:

a. 2.4%
b. 4.7%
c. 4.9%
d. 5.3%
e. There's insufficient data to determine the unemployment rate.

8) Suppose the population is 300 million. There are 146 million employed, and 7.2 million unemployed. Suppose that 1 million of the 7.2 million unemployed become so discouraged that they drop out of the labor force. The unemployment rate is:

a. 2.1%
b. 2.4%
c. 4.1%
d. 4.7%
e. There's insufficient data to determine the unemployment rate.

9) Elias used to work as an autoworker, and due to the decline of the Zambian auto industry, is now unemployed and thinking about retraining as a bicycle assembler. What type of unemployment is he experiencing?

a. frictional unemployment
b. structural unemployment
c. cyclical unemployment
d. natural unemployment
e. seasonal unemployment

10) Gerad lost his job during the last recession. What type of unemployment is he experiencing?

a. frictional unemployment
b. structural unemployment
c. cyclical unemployment
d. natural unemployment
e. seasonal unemployment

11) After raising two children, Mwimba has started looking for a job and sent out a few job applications. What type of unemployment is she experiencing?

a. frictional unemployment
b. structural unemployment
c. cyclical unemployment
d. natural unemployment

e. Mona would not be counted as unemployed as she is not in the labor force.

12) Which of the following can describe the meaning of autonomous consumption?

a) The part of consumption that is not related to income.

b) That which, when it changes, shifts the consumption schedule up or down.

c) A minimum level of income that people feel required to spend for survival.

d) The amount of consumption spending people will undertake no matter what their current incomes are, reflecting their long-term plans, their commitments and habits, and their place in the community.

e) All of the above.

13) The marginal propensity to consume (*mpc*):

a. stands for the portion of every additional dollar of aggregate income that goes to consumption spending.

b. is equal to the change in consumption (*C*) divided by the change in aggregate income (*Y*).

c. is equal to $1 - mps$.

d. theoretically should be less than 1

e. all of the above.

14) Which of the following factors will *not* cause a shift in the consumption function (or schedule)?

a. Wealth

b. Consumer confidence

c. Cultural attitudes toward spending and saving

d. A change in income

e. Changes in the distribution of income

15) If aggregate demand falls below aggregate output ($AD<Y$), according to the Keynesian model, what happens to unintended inventories?

a. There is a depletion of unintended inventories.

b. There is an accumulation of unintended inventories.

c. Unintended inventories remain unchanged.

d. Unintended inventories fall to zero (0).

e. None of the above

16) Assume a simple, closed economy with no government. The marginal propensity to consume (*mpc*) = 0.75. Then the value of the multiplier is:

a. 1.34

b. 0.57

c. 4

d. 1.75

e. 0.25

17) Which of the following best describes the relationship between the *mpc* and the multiplier?

a. The higher the *mpc*, the higher the multiplier.

b. The higher the *mpc*, the lower the multiplier.

c. The lower the *mpc*, the higher the multiplier.

d. There is no relationship between the *mpc* and the multiplier.

e. There is a one to one relationship between the *mpc* and the multiplier, i.e. the multiplier will increase by the same amount as the increase in the *mpc*.

18) Assume a simple, closed economy with no government. The marginal propensity to consume (*mpc*) = 0.8. Assume there's a sudden drop in investment spending by 100 million. By how much will output eventually fall?

a. 20 million
b. 100 million
c. 125 million
d. 500 million
e. None of the above.

19) Suppose in a simple economy with no foreign sector, the *mpc* is equal to 0.75. How much government spending (ΔG) would be needed to raise output by 100 million?

a. 25 million
b. 33.3 million
c. 75 million
d. 400 million
e. None of the above

20) In the macroeconomic model with government and an open economy, which of the following is a leakage from the circular flow?

a. Government spending
b. Government transfers payments
c. imports
d. exports
e. intended investment

21) Which of the following is *not* a reason why an unexpected bout of inflation is harmful to an economy?

a. It wipes out the value of people's savings.
b. It hurts people on fixed incomes, such as retired people who receive non-indexed pensions.
c. It redistributes wealth from debtors to creditors.
d. It creates menu costs.
e. It creates uncertainty, which makes financial planning for the future more difficult.

22) An open market purchase by the Bank of Zambia;

a. increases bank reserves, loans, and deposits, and thus increases the money supply.
b. decreases bank reserves, loans, and deposits, and thus decreases the money supply.
c. increases bank reserves, loans, and deposits, and thus decreases the money supply.
d. decreases bank reserves, loans, and deposits, and thus increases the money supply.
e. None of the above.

23) Suppose the Bank of Zambia makes an open market sale of K8 million in bonds. Assume the money multiplier is equal to 2. What is the change in the money supply?

a. The money supply has increased by K4 million.
b. The money supply has decreased by K4 million.
c. The money supply has increased by K16 million.
d. The money supply has decreased by K16 million.

e. None of the above.

24) Which of the following is *not* one of the Bank of Zambia's monetary policy tools?

a. Buying bonds on the open market
b. Selling bonds on the open market
c. Raising or lowering taxes
d. Raising or lowering the reserve requirement ratio
e. Raising or lowering the discount rate

25) Suppose the Bank of Zambia makes an open market purchase of K3 million. Assume that the money multiplier equals 2. What is the change in the money supply?

a. The money supply has increased by K1.5 million.
b. The money supply has increased by K6 million.
c. The money supply had decreased by K1.5 million.
d. The money supply has decreased by K6 million.
e. None of the above.

26) Suppose the Bank of Zambia wanted to engage in an expansionary monetary policy. Which of the following should it do?

a. Sell bonds on the open market.
b. Increase the reserve requirement ratio.
c. Increase the discount rate.
d. Buy bonds on the open market.
e. Lower taxes.

27) Which of the following best describes the sequence of events in the conduct of contractionary monetary policy using open market operations (in an economy with low inflation and a stable banking system)?

a. The Bank of Zambia raises the interest rate, which leads to a decrease in intended investment spending and a decrease in the supply of money, which decreases aggregate demand and output.

b. The Bank of Zambia decreases intended investment spending, which leads to a decrease in aggregate demand and output, and a decrease in the supply of money and the interest rate.

c. The Bank of Zambia sells bonds, which decreases the supply of money, which raises the interest rate, which leads to a decrease in intended investment spending, aggregate demand and output.

d. The Bank of Zambia buys bonds, which increases the supply of money, which lowers the interest rate, and leads to a decrease in intended investment spending and aggregate demand and output.

e. The Bank of Zambia lowers the interest rate, which leads to an increase in intended investment spending and an increase in the supply of money, which decreases

28) What is the difference between the nominal and real interest rate?

a. The nominal interest rate is the real interest rate minus the rate of inflation.
b. The real interest rate is the nominal rate plus the rate of inflation.
c. The real interest rate is the nominal rate minus the rate of inflation.
d. The nominal interest rate is the real interest rate plus the rate of inflation.
e. There is no difference between real and nominal interest rates.

29) The principle of comparative advantage says that:

a. Producers should specialize in making goods for which they have an absolute advantage.

b. Even if producers have a comparative advantage in producing a good, they should produce it only if they have an absolute advantage.

c. Producers should specialize in making goods for which they can produce at the lowest cost.

d. Producers should specialize in making goods for which their opportunity costs are relatively low.

e. Producers should consider the effects on their workers and the environment when engage in specialization and exchange.

30) Which of the following is *not* one of the reasons against "free trade"?

a. To protect domestic industries and jobs.

b. To protect infant industries and/or create a dynamic comparative advantage.

c. To prevent a race to the bottom in weakening costly labor, environmental, and safety standards.

d. To take advantage of specialization and exchange.

e. To lessen vulnerability through diversification.

SECTION B

State whether the following are **TRUE, FALSE or UNCERTAIN**.

1) The unemployment rate is the percentage of the population that does not have paid employment, but is immediately available and actively looking for work.
2) Almost all of the people who are unemployed are so because they have involuntarily lost their jobs.
3) There is no way to expand an economy using fiscal policy without incurring (or increasing) a budget deficit.
4) The existence of budget deficits must mean that the government is conducting an expansionary fiscal policy.
5) The equation for aggregate demand with government in an open economy is: $AD = C + I + G + NX$
6) When a government finances its expenditures by printing money rather than collecting taxes, this can lead to "too much money chasing too few goods" and hyperinflation.
7) Coins and paper money have in some periods been commodity money and in other periods fiat money.
8) Chileshe takes a K100 bill he had in his wallet and deposits it into his checking account. Thus, M1 increases by K100.
9) Stagflation is the combination of stagnation and deflation.
10) Both quotas and tariffs provide a monetary revenue benefit to the government that has imposed them.

SECTION C

QUESTION ONE

1. The labor force of a hypothetical economy as of May 2016 was 154.5 million. There were 146 million employed, and 8.5 million unemployed. There were about 2.18 million in prison.
    a. Calculate the official unemployment rate.
    b. If those 2.18 million people were not in prison, but were in the labor force and unemployed, calculate what the unemployment rate would be.
2. List the three expansionary fiscal policy tools the government can use to expand an economy that is in a recession?

QUESTION TWO

a. Explain what is meant by "the multiplier," and describe it in words.
b. Why is inflation harmful to an economy?
c. What are the three functions or roles of money?
d. Identify the three tools of monetary policy, and what the Bank of Zambia would do to increase (or decrease) the (growth of the) money supply.
e. Explain the sequence of links connecting an expansionary monetary policy with interest rates, intended investment, aggregate demand, and output.

END OF FINAL EXAMINATION

(d) What financial instruments are available to monetary authorities for macroeconomic stabilization? Briefly discuss how these instruments work.

QUESTION THREE (8 MARKS)

In a famous article, "The economic organization Of a Prisoners of War camp", which appeared in Economica in 1945, Radford describe his personal experience of how cigarettes spontaneously emerged as a form of money in the Prisoner of War camps in WWII.

(a) Discuss how cigarettes could be regarded as money in this situation.

'At one time cigarettes hand-rolled from pipe tobacco began to circulate. Pipe tobacco was issued in lieu of cigarettes by the Red Cross at the rate of 25 cigarettes to the ounce and this rate was standard in exchanges, but an ounce would produce 30 home-made cigarettes. Naturally, people with machines –made cigarettes broke them down and re-rolled the tobacco, and the real cigarettes virtually disappeared from the market. Hand-made cigarettes from the market. Hand-rolled cigarettes were not homogeneous...... (Radford, 1945:194-195).

(b) What effect did the introduction of hand-rolled cigarettes have on the 'currency'?

QUESTION FOUR (18 MARKS)

(1) Suppose that the money demand in an economy is given by the following linear function:

$$\frac{M}{P} = 500 + 0.2Y - 1000i$$

a) Give reasons why people demand real money balances.
b) Suppose that P=100, Y=1000 and i=0.1. Determine the demand for real balances and the velocity of money in this economy;
c) Suppose that now P=200 while everything else remains unchanged. Determine the new demand for real balances and the new velocity in this economy;
d) Given the previous money demand function, determine how the velocity of money is affected by an increase in real income in this economy. Determine how the velocity would be affected by an increase in inflation;

(2) Consider the following version of the IS-LM model. In the goods market we have:

$C = A\left(\frac{Y}{T}\right)^{C}$, $I = De^{-br}$, G and T are given.

Where A and D are positive constants. Furthermore, $0 < c < 1$ and $b > 0$. Define the equilibrium condition in the goods market as:
$\ln(Y) = \ln(C) + \ln(I) + \ln(G)$.
Money market equilibrium is given by:

$\frac{M}{P} = Y^{k}e^{-hi}$

(a) Define with small letters the log version of a variable and use the properties of the logs to derive the log-linear version of the IS and LM curve;
(b) Use the fact that $r = i + \pi^{e}$ from the Fisher equation, to derive the IS-LM model is the (i, y) space. Solve for the equilibrium of the model.

(c) Show how a change in inflation expectation will affect real income and the real interest rate, everything else constant

(d) Use the fact that $r = i + \pi^e$ to derive the IS-LM model in the (i, y) −space. Solve for the equilibrium of the model.

(e) Show how a change in inflation expectations will affect real income and the nominal interest rate, everything else constant.

(f) Consider the Liquidity Trap case. Explain (also using a diagram) how an expansionary monetary policy may have effects on real income when inflation expectations are taken into account in the IS-LM model
(*Hint: use the fact that there is a clear relation between money and inflation in the long-run*);

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

2015/2016 ACADEMIC YEAR

MID - YEAR FINAL EXAMINATIONS

ECN 2331: STATISTICS - THEORY AND TECHNIQUES FOR ECONOMICS

TIME: TWO (2) HOURS

INSTRUCTIONS: ANSWER **ALL QUESTIONS** IN SECTION A AND **CHOOSE ANY OTHER TWO QUESTIONS OF YOUR CHOICE** FROM SECTION B, AND CLEARLY SHOW ALL YOUR WORK

SECTION A (COMPULSORY)

QUESTION ONE

State whether the following statements are true, false or uncertain.

I. The probability associated with a sample space is always 100%.

II. The p-value is synonymous to the exact level of significance?

III. One minus the type I error is the probability of rejecting a false null hypothesis?

IV. A statistic and an estimator are used interchangeably?

V. A binomial distribution is an extension of a Bernoulli distribution?

VI. The t-distribution approximates the normal distribution as the degrees of freedom increase?

VII. A distribution is normally distributed if the values of kurtosis and skewness depart from the 3 and 0 respectively

VIII. Simple random sampling is deeply rooted in systematic sampling

IX. The Fisher's (F) statistic is ratio of two independent chi-square variables multiplied by the ratio of the denominator degrees of freedom and numerator degrees of freedom

X. Sampling error is the difference between the point estimator and the corresponding population parameter

QUESTION TWO

A researcher conducted a study to investigate the relationship between obesity and cardiovascular disease in a sample of 2000 women and observed the following data.

	Obese	Underweight
Record of Heart Disease	400	300
No record of Heart Disease	200	1100

a) Given that a woman is obese, what is the probability that she has heart disease?

b) Compute the probability that a woman is obese and has a record of heart disease

c) Given that a woman is underweight, find the probability that she has heart disease.

d) Find the probability that the woman is underweight given that the woman has no record of heart disease

e) Based on the data, can one conclude that obesity and heart disease are independent events?

f) What would the researcher's conclusion be about the relationship obesity and cardiovascular disease?

QUESTION THREE

Social media discontent with regard to services provided by Airtel and MTN have compelled The Zambia Information and Communications Technology Authority (ZICTA) to conduct a study to understand the time it takes Airtel and MTN to address customer complaints. ZICTA believes that there is no difference in the population mean time taken by Airtel and MTN to address customer complaints. To test ZICTA's belief, two independent samples are drawn from respective customer groups and sample computations yield the following results:

Airtel Customers	MTN Customers
$\bar{X}_1 = 2.5\ minutes$	$\bar{X}_2 = 2.1\ minutes$
$S_1 = 0.8\ minutes$	$S_2 = 1.1\ minutes$
$n_1 = 22$	$n_2 = 20$

Assuming that the times taken to address the complaints are normally distributed and that the two population standard deviations are equal,

a. Is there enough evidence to suggest that there is no difference in the population mean time taken by Airtel and MTN to address customer complaints? Use $\alpha = 0.05$ *to test the claim*
b. Construct a 99% confidence interval estimate of the difference between Airtel's population mean time and MTN's population mean time.
c. Using the interval estimate in (b), what would be the conclusion of the hypothesis test conducted in (a) above?

SECTION B

QUESTION FOUR

In Lusaka, during rush hours, accidents occur at the rate of two per hour. The morning rush period lasts for 1 hour 30 minutes and the evening rush period lasts for two hours.

a) On a particular day, what is the probability that there will be no accidents during the morning rush period?
b) What is the probability of two accidents during the evening rush period?
c) What is the probability of four or more accidents during the evening rush period?
d) On a particular day, what is the probability there will be no accidents during both the morning and evening rush periods?

QUESTION FIVE

The Bankers Association of Zambia (BAZ) is conducting a review of banks service charges and interest-paying policies on checking accounts. BAZ has observed that the average daily balance on personal checking accounts is K550, with a standard deviation of K150. If the average daily balances are observed to be normally distributed,

a) What percent of bank customers carry average daily balances below K200?
b) What percent of personal checking account customers carry average daily balances in excess of K800?
c) What percent of bank's customers carry average daily balances between K300 and K700?

d) Some banks are considering paying interest to customers carrying average daily balances in excess of a certain amount. If these banks do not want to pay interest to more than 5% of its customers, what is the minimum average daily balance these banks should be willing to pay interest on?

QUESTION SIX

A state official was investigating a relationship between salary (X) and the number of absences (Y) for state employees. The Variable Y in the following table represents the average number of absences per year for employees at that salary.

Salary in ZMW thousands (X)	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0
Number of absences (Y)	2.3	2	2	1.8	2.2	1.5	1.2	1.3	0.6

a) Draw a scatter diagram. Does the linear relationship between X and Y seem appropriate?

b) Develop an estimated regression equation for the data and interpret the observed coefficients.

c) Predict the average number of absences for employees earning ZMW 29 000.

d) Find the coefficient of determination and interpret it.

e) Find the correlation coefficient

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

2015 ACADEMIC YEAR

MID-YEAR FINAL EXAMINATION

ECN 3115: Advanced Microeconomics Theory

INSTRUCTIONS

1. Answer a total of **THREE** questions
2. Each question carries 20 marks
3. Time: Two Hours

QUESTION ONE

The market for IT services consists of two companies, firm A and firm B, and is characterised by the following inverse demand function $P = 3 - 0.01Q$ if $Q \leq 300$ and zero otherwise. Suppose that firm A's and B's production costs are described by the cost functions $C(q_A) = q_A$ *and* $C(q_B) = {q_B}^2$ *respectively.* What output, price, and profit will correspond to each firm's Nash Equilibrium if

a) The firms simultaneously produced the market output Q strategically, and graphically show the Nash equilibrium.

b) The Stackelberg approach was adopted, with firm B as the follower or second mover.

QUESTION TWO

i). A producer is faced by the following expenditure minimisation problem. Use the Lagrangian method to find the conditional factor demand function.

$$\text{Minimize } wl + rk$$

$$\text{Subject to } y = l^{.5}k^{.5}$$

ii). Find the producer's cost function and explain its properties.

iii). Use the Sheppard's Lemma to recover the conditional demand functions from the producer's cost function derived above.

QUESTION THREE

a) Ganizani is endowed with K20 in year 1 and K50 in year 2.

   i). What is his present value if the interest rate is 15 percent?

   ii). What is his future value?

   iii). Put the information in i) and ii) above on a graph to show his constraint.

b) A risk-averse individual is offered a choice between a gamble that pays \$1000 with a probability of 25% and \$100 with a probability of 75%, or a payment of \$325. Which would he choose? What if the payment was \$320?

QUESTION FOUR

i). Explain the following terms with an example for each

   a) Moral hazard

   b) Adverse selection

   c) Signalling

ii). What are the possible solutions to the problems of moral hazard and adverse selection?

iii). A worker can produce x units of output at a cost of $c(x) = x^2/2$. He can achieve a utility level of $u = 0$ working elsewhere. What is the optimal wage-labour incentive scheme $s(x)$ for this worker?

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015/2016 ACADEMIC YEAR
END OF YEAR FINAL EXAMINATIONS

ECN 3225: MONEY AND BANKING-PARALLEL
TIME: TWO (2) HOURS
INSTRUCTIONS: ANSWER **ALL QUESTIONS**.

QUESTION ONE (20 MARKS)

In a famous article, "The economic organization Of a Prisoners of War camp", which appeared in Economica in 1945, Radford describe his personal experience of how cigarettes spontaneously emerged as a form of money in the Prisoner of War camps in WWII.

(a) Discuss how cigarettes could be regarded as money in this situation. **[6 MARKS]**

'At one time cigarettes hand-rolled from pipe tobacco began to circulate. Pipe tobacco was issued in lieu of cigarettes by the Red Cross at the rate of 25 cigarettes to the ounce and this rate was standard in exchanges, but an ounce would produce 30 home-made cigarettes. Naturally, people with machines –made cigarettes broke them down and re-rolled the tobacco, and the real cigarettes virtually disappeared from the market. Hand-made cigarettes from the market. Hand-rolled cigarettes were not homogeneous...... (Radford, 1945:194-195).

(b) What effect did the introduction of hand-rolled cigarettes have on the 'currency'? **[6 MARKS]**

(c) In line with part (b) Discuss the evolution of the International Financial System to date and role that the IMF and World Bank in stabilizing member countries' development path. **[8 Marks]**

QUESTION 2 (20 MARKS)

(a) Consider the following extract from Svensson's 2008 speech "What have economists learnt about monetary policy over the past 50 years?"

"We have also learned, I believe, that monetary aggregates matter little, or even not at all, for monetary policy. Credit aggregates may matter. Furthermore, I believe that Friedman's statement that "inflation is always and everywhere a monetary phenomenon" is often misunderstood. It refers to a long run correction between endogenous variables, inflation and money growth, but it says nothing about the causality, that is, which variable determines the other.

Compare the view expressed by Svennson with the argument by Issing (2009) that money plays an indispensible role in monetary policy. **[7 Marks]**

(b) Economists argue that "there is a nexus between financial development and economic growth of any economy". The minister of Finance and National Planning gets excited with this revelation and needs an evidence based intervention for a troubled economy liquidity wise as the public are shunning away from banks due to uncertainties in the financial sector. You are an economist employed as planner in the same ministry.

(i) What policy advice would you attribute to as evidence for measurements for financial development in the Zambian financial system? **[5 MARKS]**

(ii) You have established that indeed the nexus exists, briefly explain its existence. **[5 MARKS]**

(iii) Who are the key players in the financial markets? **[3 Marks]**

(iv) What tools are available to monetary authorities for macroeconomic stabilization? Briefly discuss how these tools work. **[5 Marks]**

QUESTION (20 MARKS)

(a) Briefly discuss how firms finance their operations. **[6 MARKS]**

(b) Troubled corporation often offer "junky bonds" in an attempt to remain afloat with their operations. What are "junky bonds"? **[3 MARKS]**

(c) In monetary policy management, goals of Monetary Policy include high employment, economic growth, and stability in price, interest rate, financial markets and foreign exchange market. In the 2014 budget address to the nation, Alexander Chikwanda, Minister of Finance announced that inflation rate was going to be controlled within a single digit range for the next financial year. The minster knowing that there exists a trade-off between inflation and output, opted to realise a higher growth rate at the expense of a double digit inflation figure. In 2016 national budget address, the minister indicated that a single digit inflation rate of 8 per cent was to be realised but inflation continued rising from 10 per net to up to 21 per cent.

(i) Explain how rational expectation could have led to the high inflation. **[3 MARKS]**

(ii) Describe clearly the notion of dynamic inconsistency in the above experience. **[5 MARKS]**

(iii) List three characteristics of the central banks that anchors inflation expectations in an economy. **[3 Marks]**

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015/2016 ACADEMIC YEAR
MID- YEAR FINAL EXAMINATIONS

ECN3225: MONEY AND BANKING
TIME: TWO (2) HOURS
INSTRUCTIONS: ANSWER ALL QUESTIONS

QUESTION ONE

Give an outline of Milton Friedman's contribution to the theory of demand for money. What are the significant points of departure from Keynes? (20pts)

QUESTION TWO

The Bank of Zambia intervenes in the Foreign exchange market to prevent a fall in the value of Kwacha by selling K200million worth of foreign reserves from its basket of foreign currencies. The money multiplier is 3. The households and petty traders buy K5m worth of British pounds with cash; Kabulonga Bank buys some K100m worth of foreign currency in Chinese Yuan; Tembo Investments Ltd buys K20m worth of foreign currency in US dollars using Kabulonga Bank; and the rest is bought by other commercial banks and large corporations.

1. Using T accounts show the impact of these transactions on the balance sheets of:
   A) Bank of Zambia
   B) Kabulonga Bank
   C) Tembo Investments Ltd
2. What is the impact on money supply?
3. Assuming the Bank of Zambia was completely happy with the pre- foreign exchange intervention level of money supply in the economy, what further actions would you, as BOZ Chief Economist recommend to the Governor of BOZ. Use BOZ T accounts to amplify your answer. (20 pts)

QUESTION THREE

A) Outline the significance of time inconsistency in monetary policy management (10 pts)

B) Outline the case for central bank independence (10 pts)

C) Outline the major financial innovations that emerged as a result of changes in the supply conditions (10 pts)

D) With help of diagram, discuss the Monetarists 'position that supply shocks cannot lead to a change in the price level (10 pts)

E) Given the following balance sheet of Kabulonga Bank

ASSETS (K million)		LIABILITIES (K million)	
Reserves	30	Demand deposits	100
6 month loans	50	Variable rate CDs	160
5 year loans	100	Equity capital	220
Variable rate mortgages	40		
6 month treasury bills	60		
5 year bonds	200		
Total	480		480

Use Basic Gap analysis to determine impact on profitability of the bank when interest rates rise by 6% (10 pts)

F) Discuss the two methods used by the Federal Deposit Insurance Corporation to deal with struggling commercial banks. (10 pts)

END OF EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2015/ 2016 ACADEMIC YEAR
END OF YEAR FINAL EXAMINATION

ECN 3235: PUBLIC FINANCE
TIME: TWO HOURS
INSTRUCTIONS: **Answer ALL questions in Sections A and B and choose either question 5 or question 6 in Section C**

SECTION A

Question 1

For each of the statements (a) to (j), state either **TRUE** or **FALSE or UNCERTAIN** and then **BRIEFLY JUSTIFY** your answer.

(a) Consumption taxes are more avoidable than income taxes because consumers or taxpayers can easily avoid them by consuming less of the good being taxed.

(b) If private markets did not suffer from imperfections, there would be no further need for governments to intervene except to try and influence the pattern of income distribution in the society.

(c) Negative externalities are said to occur when costs or benefits are imposed on persons that do not participate in the market transaction of a good or service.

(d) Given that the marginal social cost of consuming good X is the same as the marginal external cost of consuming good X, then the marginal private cost of consuming this good (X) is equal to zero.

(e) A taxpayer complained about high cost of keeping tax records. The cost of keeping tax records is an example of indirect costs of compliance.

(f) If a specific tax of K5 per bottle of alcohol whose current price is K10 is charged, the ad valorem equivalent of the specific tax is 33%.

(g) According to the Benefit Principle of Taxation, if the goods and services provided by a government are rival in consumption or people who do not pay for a good or resource may be excluded from its consumption, a user charge or fee can be collected from the users.

(h) In Zambia, if good Y is zero-rated for Value Added Tax (VAT) purposes, it means that the supply of good Y will attract a VAT rate of zero percent while inputs used to produce good Y will be taxed at the standard rate.

(i) There is double taxation of shareholders' income when the income from a company is taxed first at corporate level and then at individual level when dividends are being distributed.

(j) In the job market, signaling cannot succeed unless the signaling cost differs sufficiently among the job applicants.

SECTION B

Question 2 (10 Points)

The goods and services in the market can be classified into four categories according to the characteristics of excludability and rivalry in consumption. Table 1 below shows four categories as follows:

Table 1: Classification of Goods

Category	Characteristics
1	Rival and non-excludable
2	Non-rival and excludable
3	Rival and excludable
4	Non-rival and non-excludable

a) What type of goods are in each of the categories 1, 2, 3 and 4

b) Give at least three (3) examples of goods in each of the four categories.

c) List at least one major problem associated with each of the 4 categories and briefly explain the problem.

Question 3 (15 Points)

Tax incidence or tax burden refers to the analysis of the effect of a particular tax on the distribution of economic welfare. The tax burden is said to be borne by a group that ultimately pays the tax imposed.

Using well labeled diagrams (one diagram for each) with clear assumptions, illustrate the following situations:

(a) Where the entire tax burden is borne by the consumer;

(b) Where the entire tax burden is born by the supplier; and

(c) Where the consumer and the supplier share the tax burden.

(d) What are the main factors that determine the distribution of tax burdens in (a), (b) and (c)?

Question 4 (15 Points)

Assume that a good is taxed K4 per unit, and that the tax rate is doubled to K8 per unit. How will the revenues collected by the tax authorities' change as a result of a doubling of the tax rate? How will the excess burden of the tax change? Use a well labeled graph to illustrate your answer.

SECTION C

Question 5 (30 Points)

Tables 2 and 3 below show estimates of Government expenditures and revenues respectively for the fiscal year 2016. Study the two tables and hence or otherwise answer the questions (a) to (d) below.

Table 2: 2016 Budget by Functional Classification (of Expenditures), K' Billion

Function	2016 Budget	
	K' million	Percentage of Budget
General Public Services	**19,171,696,837.00**	36.1%
Local Government Equalisation Fund	717,013,167.00	
Tripartite Elections/Referendum	727,900,000.00	
Public Affairs and Summit	82,691,590.00	
External Debt Interest	3,615,559,302.00	
Domestic Debt Interest	3,549,266,545.50	
Sinking Fund	536,237,121.00	
Awards and Compensation	100,000,000.00	
Defence	**3,145,795,491.00**	5.9%
Public Order and Safety	**1,840,555,811.00**	3.5%
Economic Affairs	**13,247,239,002.00**	**24.9%**
Empowerment Fund	373,255,937.00	
Fisheries Development Fund	5,000,000.00	
Farmer Input Support Programme	1,000,355,610.00	
Food Reserve Agency	750,000,000.00	
Rural Electrification Fund	118,186,676.00	
Roads Infrastructure	6,629,938,774.00	
Environmental Protection	**151,406,460.00**	0.3%
Housing and Community Amenities	**468,751,628.00**	0.9%
Water supply and Sanitation	283,647,640.00	
Health	**4,431,850,156.00**	8.3%
Drugs and Medical Supplies	754,000,000.00	
Medical Infrastructure and Equipment	387,070,633.00	
Recreation. Culture and Religion	**261,545,249.00**	0.5%
Education	**9,143,215,926.00**	17.2%
School Infrastructure	637,325,937.00	
University Infrastructure	390,000,000.00	
Student Loans and Bursaries	310,913,011.00	
Social Protection	**1,273,768,804.00**	2.4%
Public Service Pension Fund	805,000,000.00	
Social Cash Transfer	302,000,000.00	
Food Security Pack	20,000,000.00	
Grand Total	53,135,825,364.00	100.0%

Source: 2016 National Budget-Zambia

Table 3: Total Resource Envelope for the 2016 Budget

	(K' million)		% of Budget
Total Tax Revenues		30,410.3	57.2%
Income Tax	*14,340.3*		
Company Income Tax	*3,239.1*		
PAYE	*7,934.4*		
Withholding & other	*3,166.8*		
Insurance Premium Levy	44.0		
Value Added Tax	9,893.5		
Domestic VAT	*1,503.4*		
Import VAT	*8,390.1*		
Customs and Excise	6,132.5		
Customs duty	*2,488.9*		
Excise duty	*3,643.6*		
o/w Fuel Levy	991.2		
Non-Tax Revenues		11,698.9	22.0%
Fees & Fines	*7,645.3*		
Exceptional	*1,164.4*		
Mineral Royalty	*2,889.1*		
Domestic Revenue		42,109.1	
Domestic Borrowing		2,509.5	4.7%
Total Domestic Revenue and Domestic Financing		44,618.6	
Total Foreign Grants and Financing		8,517.2	
Grants	*545.9*		1.0%
Project Grants	545.9		
Foreign Financing	*7,971.3*		15.0%
Programme Loans *Project Loans*	3,954.3 4,017.0		
TOTAL REVENUE AND FINANCING		53,135.8	100.0%

Source: 2016 National Budget-Zambia

a) Briefly define a Government Budget and while doing so refer to relevant figures given in tables 2 and 3.

b) Was the 2016 budget a balanced budget? Briefly justify your answer.

c) It is argued that the scale and direction of public expenditure may affect the pattern and levels of consumption of the community in terms of volumes of production; allocation of resources; distribution of incomes; prices and employment. Using some specific expenditure items in table 2 as examples where applicable, briefly explain (theoretically) how public expenditure affects the following:

a. Employment; and

b. Distribution of incomes.

d) What would be the possible impact of decreasing Domestic Borrowing and Foreign Financing from the proposed 4.7 percent and 15.0 percent of GDP to 2 percent and 7.5 percent of GDP respectively?

Question 6 (30 Points)

(a) Briefly explain the role of the state under the following sub-headings:

i. Stabilization of the economy;

ii. Efficient allocation of resources; and

iii. Equitable distribute income and endowments.

(b) Why is taxation considered to be the most reliable means of financing government operations?

(c) What factors make most governments predisposed to budget deficits?

-End-

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
2015 ACADEMIC YEAR
MID-TERM FINAL EXAMINATIONS

ECN4121: INTERNATIONAL TRADE THEORY AND PRACTICE
TIME: TWO (2) HOURS
INSTRUCTIONS: ANSWER **THREE** QUESTIONS IN ALL. **QUESTION ONE IS COMPULSORY.** KEEP YOUR ANSWERS BRIEF. MARKS WILL BE ALLOCATED ON THE BASIS OF CONCISE AND CORRECT AND NOT LONG ANSWER

QUESTION ONE

State whether the following are **TRUE, FALSE or UNCERTAIN**.

(a) Comparative advantage means that one country can produce one product at a lower marginal cost than another country.
(b) A small country experiences incomplete specialisation under both constant and increasing costs.
(c) Predatory dumping is intended to avoid domestic price reduction due to unanticipated and temporary surplus of the commodity.
(d) A scientific tariff eliminates international price differences and trade in some commodities.
(e) Gains from trade between two nations result in both nations enjoying lower product prices.
(f) A gravity model of trade tends to be more comprehensive than other trade models.
(g) A production subsidy will have a stronger impact on a country's trade because it makes exports relatively cheaper and imports more expensive.
(h) An import quota reduces the amount consumed of the domestically produced import-competing commodity.
(i) The relative price of traded goods rises when a reduction in the tariff rate is accompanied by an equivalent increase in the export tax.
(j) The terms of trade and wealth effects always increase the welfare of consumers in a large nation.

QUESTION TWO

Strategic trade policy is advanced in favour of an activist trade policy and protectionism. Contrast strategic trade policy with other known qualified form(s) of trade protectionism.

QUESTION THREE

A nation's comparative advantage changes overtime due to changes in factor endowments, improvements in technology and changes in taste. Explain in detail how changes in factor growth would lead to balanced growth.

QUESTION FOUR

Critically analyse the dynamic benefits a nation derives from a customs union.

QUESTION FIVE

(a) How does absolute advantage differ from comparative advantage?

(b) Determine the opportunity cost of producing one unit of X and Y in countries A and B.

	Production Possibilities	
Country	X output	Y output
A	400	550
B	500	450

(c) Which commodity will country A specialise in?

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
ECONOMICS DEPARTMENT
2015/16 ACADEMIC YEAR
MID- YEAR FINAL EXAMINATION

ECN 4145 : ENVIRONMENTAL ECONOMICS
TIME ALLOWED: 2HOURS
INSTRUCTIONS : ANSWER **ALL**

QUESTIONS ONE

Multiple Choice Questions. Choose the correct/best statement (10)

1.
   a. Environmental economics does not deal with scarcity of resources because environmental resources are abundant.
   b. Environmental economics deals with optimal quality of those environmental resources that cannot be subdivided into smaller physical units, like air quality and ecology.
   c. Environmental economics deals with optimal quantity of those natural resources that can be divided into smaller physical units, like barrels of crude oil and cubic feet of lumber.
   d. Both b and c are correct.

2.
   a. A society faces a tradeoff between the amount of market goods and the level of environmental quality it can enjoy.
   b. A society faces a tradeoff between the amount of market goods it can enjoy in the short run and the amount of market goods it can enjoy in the long run.
   c. Both a and b are correct.
   d. Both a and b are not correct.

3. Compared to when marginal enforcement costs are ignored in the determination of efficient level of emissions, inclusion of marginal enforcement costs would suggest
   a. a lower level of emission reduction.
   b. a higher level of emission reduction.
   c. the same level of emission reduction.
   d. a higher or a lower level of emission reduction.

4. I was sick today with 45^0 C fever, and yet I went to work for 8 hours and earned K600. According to the economics approach,
   a. I am an irrational person to go to work because "health is wealth."
   b. I am a rational person to go to work because "work is worship."
   c. I am an irrational person because the discomfort of sickness far outweighs K600 of earning.
   d. I am a rational person because the discomfort of sickness to me was worth less than K600.

5. According to the economics approach,
   a. a forest owner who does not allow any trees to be cut for lumber despite offers would always be considered using the resource inefficiently.
   b. a forest owner who does not allow any trees to be cut for lumber despite offers would always be considered using the resource efficiently.
   c. a forest owner who does not allow any trees to be cut for lumber despite offers would be considered using the resource efficiently if benefits of letting trees stand exceed the amount of offers made for lumber.

d. a forest owner who does not allow any trees to be cut for lumber despite offers would be considered using the resource efficiently if the amount of offers made for lumber exceed benefits of letting the trees stand.

QUESTION TWO

Use a diagram to illustrate and explain the dead weight loss resulting when a firm does not pay the full cost of its pollution. Suggest one policy that could be used to eliminate the deadweight loss and illustrate the policy on your graph. Label your diagram clearly**(5).**

QUESTION THREE

ZEMA is concerned about a new air pollutant. The pollutant is currently uncontrolled and 200 tons are emitted each year. The emissions come from two sources, each of which is responsible for 100 units. Source 1's marginal abatement cost is given by MC1=4*Q1, where Q1 is the amount of abatement it does. Source 2's marginal abatement cost is MC2 = 8*Q2. The marginal benefits of abatement are believed to be given by a function of the form: MB=A-B*Qa, where A and B are parameters and Qa is the total amount of abatement.

A study done by one UNZA environmental Economist student reports that the marginal benefit for an improvement in air quality from the uncontrolled level (i.e., when Qa= 0) would be K300. The study also reports that if the pollution level were reduced to 150 tons, the marginal benefit of abatement would fall to K250. Determine the efficient level of abatement. How much should source 1 clean up? How much should Source 2 clean up? **(20)**

QUESTION FOUR

i. Mention and explain six steps in making environmental policy**(3)**
ii. Explain what Hedonic method is all about**(2)**

QUESTION FIVE

Let's suppose a particular water pollutant causes K50 of damage per ton. Two sources emit the pollutant and each is currently generating 100 tons (total emissions = 200 tons). Source 1 is known to be able to reduce its emissions at a marginal cost given by MC1 = 1*Q1. Source 2's abatement costs are not certain. One possibility is that MC2 = 2*Q2 but it's also possible that MC2 = 5*Q2. It cannot be determined in advance which of the MC2 curves is correct. If it were certain that source 2 had the first marginal cost curve (MC2 = 2*Q2), calculate each of the following: **(10)**

1. the efficient total amount of abatement;
2. the amount of abatement that should be done by each source;
3. the emissions tax that would get to efficiency;
4. the quantity of permits that would achieve efficiency; and
5. the market-clearing price of a permit if a permit policy were used.

END OF EXAM

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

2015/ 2016 ACADEMIC YEAR
MID- YEAR FINAL EXAMINATIONS

ECN 4235: DEVELOPMENT ECONOMICS

TIME: TWO HOURS

INSTRUCTIONS: Answer THREE questions (All questions in Section A and ONE question in Section B). Full marks will only be awarded for concise answers. Bonus points will be awarded for neat presentations.

Section A (Compulsory)

Question 1

Attempt all of the following by briefly explaining:

a. The difference between economic growth and economic development.
b. The main difference between the production functions of Adam Smith's Classical theory and Marxian analysis of economic development.
c. The main similarities and differences between Classical theory and Keynesian explanation of economic growth.

Question 2

Agriculture and mining dominate Zambia's economic activities which is one of the main characteristics of developing countries' economies.

a. Using Lewis's growth model briefly explain the contributions agriculture should make to Zambia's economic development effort.
b. State and briefly explain four impediments to agricultural growth in the developing countries.
c. What contributions should the mining industry be making towards Zambia's economic development similar to those you have outlined in (a)?

Section B (Choose One Question)

Question 3
Attempt all of the following:

a. State and explain the main sources of foreign resources in economic development. Ensure to give illustrations using Zambia.
b. Latin American "Structuralists" argued that developing countries needed to industrialise their economies to develop.
   i. State four policy instruments that can be used to promote industrial development in a country.
   ii. List and briefly explain the limitations of the import substitution industrialisation strategy (ISI) as experienced in Latin America.
   iii. If Zambia were to adopt the ISI what would you recommend to ensure the country avoids the 1980s experience with the strategy?
c. List and explain three gains from international trade and give illustrations on Zambia.

Question 4
Write short notes on the following:

a. The gap analysis and the role of foreign resources in economic development.
b. State and explain four arguments in favour of economic planning by developing countries.
c. Give examples of 'short', 'medium' and 'long-term' planning in Zambia.
d. State and explain the four stabilisation policies that constituted in part, the Structural Adjustment Programmes that the International Monetary Fund and World Bank recommended to Zambia in the early 1990s.

- End of Examination -

UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

ECN 9125: INDUSTRIAL ORGANISATION

2016 MID-YEAR FINAL EXAMINATION

INSTRUCTIONS

1. There are two sections in this Examination Paper. Section A is **COMPULSORY** and Choose any two questions in section B
2. Maximum allowed time for this examination is two hours

SECTION A: COMPULSORY

Question One

i) An Herfindahl index of 0 suggests
A. Monopoly B. Monopolistic Competition C. Oligopoly D. Perfect Competition

ii) If market demand in a differentiated Bertrand model is P=15-4Q and marginal cost are \$3. The fixed cost is zero for both firms. Which of the following statements is true?
A) P=\$3 B) P=\$10 C) P=\$15 D) none of the above

iii) Assume that XYZ consists of two plants. It produces the intermediate good at plant 1 and the finished good at plant 2. The market demand and supply is given by p=15-4Q and P=10+Q respectively. If the market for the output of plant one is perfectly competitive, what transfer price should the plant charge its sister company?

A) 15 B) 11 C) 16 D) none of the above because there is not much information given

iv) The study of how people (or firms) behave in strategic situations is called:
A) cost-benefit analysis. B) Recursive analysis.
C) Normative economics. D) Game theory.

v) Which of the following statement is true?
A) Double marginalization occurs because of monopoly in the market
B) Double marginalization can be solved using a two-part tariff pricing
C) Double Marginalization occurs only pricing of intermediate goods
D) None of the above

vi) If average fixed cost is falling then marginal cost must be falling
A) Rising B) Falling C) Constant D) None of the above

vii) Which of the following is True for a competitive firm, but not for a single product monopolist:
A) The firm maximizes profit by setting Marginal revenue to marginal cost
B) The firm can sell any amount of output at the market price
C) The firm is a price setter
D) The Marginal cost is less than price

viii) In the dominant firm model of oligopoly, the smaller firms act like
A)oligopolists.
B)monopolists.
C)monopolistic competitors.
D)perfect competitors.

ix) If the four-firm concentration ratio for industry X is 80:
A) The four largest firms account for 80 percent of total sales.
B) Each of the four largest firms accounts for 20 percent of total sales.
C) The four largest firms account for 20 percent of total sales.
D) The industry is monopolistically competitive.

x) Product differentiation is present in:
A) Purely competitive markets only.
B) Monopolistically competitive markets only.
C) Oligopolistic markets only.
D) Both monopolistically competitive and oligopolistic markets.

Question Two: TRUE or FALSE and Justify Your Answer

a) The stackelberg leader could get a higher profit by reducing output if the follower did not increase his output
b) The Herfindahl Index will decrease if one of the firms in the monopolistic market wins market share from of the firms.
c) Prof. Ndulo a firm believer in the Neo-classical theory of the firm has completed delivering a lecture on a critique of full cost pricing theory. The main point of his lecture was that the Average Cost Pricing theory does not add anything new to the neo-classical theory of the firm. As a student of Industrial Organisation show mathematically that Prof. Ndulo's argument can be supported.
d) Consider a single-price monopoly firm currently at its profit-maximizing choice. Suppose that the cost of inputs falls, reducing its marginal and average costs. As a result, the firm will sell its goods at a lower price, sell a higher quantity, and make a higher profit than before.
e) An increase in the demand for a monopolist product will always result in a higher price for its product.

Section B: CHOOSE ANY TWO

Question three

Consider the following table of valuations for goods X and Y. Suppose the marginal cost of X is 1 and the marginal cost of Y is also 1.

	PRODUCT X	**PRODUCT Y**
CONSUMER TYPE 1	4	3
CONSUMER TYPE 2	3	3
CONSUMER TYPE 3	0	4

a) Find the optimal prices for the two goods under single selling and calculate the firms' total profit.
b) Find the optimal monopoly price for pure tying.
c) Find the optimal monopoly price for mixed tying. Which of the strategies, a) or b), results in larger profits to the monopolist?

Question four

BMW, the famous German auto maker, has a plant in Germany and one in the US (in fact, in North Carolina). The cost functions of the two plants are given below along with the demand functions for BMW cars sold in each of the two markets: Germany: $CG(q) = 10 + q^2 + 2q$; $DG(p) = 22 - p$, U.S.: $CUS(q) = 20 + 2q^2 + 2q$; $DUS(p) = 32 - p$. To begin with assume that due to trade restrictions, BMWs built in one country cannot be sold in the other.

a) Find the profit-maximizing price and quantity of BMWs sold in each market, assuming that BMW behaves as a monopolist. Now, assume that the export barriers are entirely eliminated as part of a free trade agreement, and that transportation costs are zero.
b) Find the equilibrium price and quantity when BMW can sell cars produced at either plant in either country.
c) Compare the average price of a BMW under the export- import ban with the free trade price. Explain any differences you find based on the demand and cost conditions.

Question Five

Suppose that Nabwala a valley town in the Northern Province of Zambia town can only be reached by Air (no roads or rails are located in the area). GBC is the only provider of passenger service to the area and thus behaves as a monopolist. Suppose that the demand for round-trip tickets is given by P = 50 – ½ Q. GBC faces a marginal cost of $20 per passenger (in the provision of services (food and labour)). Additionally, assume that a private firm with no marginal costs owns the Airports, and no other airstrip exists. As a result, the private firm charges GBC "Landing" fee Pr per passenger.

a) If the fee is set at $15, how many passengers take the trip? What is the ticket price?

b) What is the demand curve faced by the private rail firm? In other words, what quantity will Amtrak demand given a royalty fee Pr?

c) Find the private rail firm's profit-maximizing royalty fee and the ticket price charged by Amtrak. What are the combined profits? Why is this referred to as "double marginalization"?

d) If Amtrak purchases the rail, what are the new ticket prices? How has combined profits changed? Will this improve consumer welfare? Explain.

...END OF EXAMINATION...

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2015/ 2016 ACADEMIC YEAR
MID YEAR FINAL EXAMINATIONS

ECN 9415:	HISTORY OF ECONOMIC THOUGHT
TIME:	TWO HOURS
INSTRUCTIONS:	ATTEMPT **ANY THREE** QUESTIONS

Question One

Outline the life of Alfred Marshall. In a detailed approach, describe the critical contributions he made to economic theory.

Question Two

Cournot had argued that "determinate equilibrium pricing" was possible in his model. However, Edgeworth argued to the contrary – that "product price is indeterminate". Make a case of the two models demonstrating how each would reach stated conclusion.

Question Three

What is the Hicks – Hansen Synthesis ($IS - LM$ model)? What were the reasons leading to its formulation?

Question Four

i. What is Alfred Marshall's definition of Economics.
ii. Briefly what are state at least four reasons for studying History of Economic Thought?
iii. How did each of the following define History of Economic Thought:
   a. Mark Blaug
   b. Haney
   c. Schumpeter and
   d. Bell
iv. In terms of the History of Economic Thought provide a definition and an interpretation of the following terms i.e. give an interpretation or implication of what the term implies for History of Economic Thought:
   a. Absolutism
   b. Relativism
   c. Theory

d. Ideology
e. Policy

Question Five

Adam Smith developed the Theory of Economic Development in which the ideas of the nature and causes of the wealth of nations was argued and summarised. Karl Marx developed the Law of Motion of Capitalism in which the end stage of capitalism is summarised.

i. Outline each of the arguments.
ii. Would you consider that there are any similarities between the two and if so how?

END OF FINAL EXAMINATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
2015/ 2016 ACADEMIC YEAR
MID YEAR FINAL EXAMINATIONS

ECN 9415: HISTORY OF ECONOMIC THOUGHT
TIME: TWO HOURS
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ii. Briefly what are state at least four reasons for studying History of Economic Thought?
iii. How did each of the following define History of Economic Thought:
   a. Mark Blaug
   b. Haney
   c. Schumpeter and
   d. Bell
iv. In terms of the History of Economic Thought provide a definition and an interpretation of the following terms i.e. give an interpretation or implication of what the term implies for History of Economic Thought:
   a. Absolutism
   b. Relativism
   c. Theory

d. Ideology
e. Policy

Question Five

Adam Smith developed the Theory of Economic Development in which the ideas of the nature and causes of the wealth of nations was argued and summarised. Karl Marx developed the Law of Motion of Capitalism in which the end stage of capitalism is summarised.

i. Outline each of the arguments.
ii. Would you consider that there are any similarities between the two and if so how?

END OF FINAL EXAMINATION

UNIVERSITY OF ZAMBIA
SCHOOL OF HUMNITIES AND SOCIAL SCIENCES
DEPARTMENT OF SOCIAL DEVELOPMENT STUDIES
2015 ACADEMIC YEAR FINAL EXAMINATIONS

SOC 3110: URBAN SOCIOLOGY

TIME: THREE HOURS

INSTRUCTIONS: Answer four (4) questions only.

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1. With practical examples, identify and discuss factors behind changes in family structures and roles in the 21st century in Developed and Developing Countries.

2. Differentiate Louis Wirth's concept of "urbanism as a way of Life" from Robert Park's "Ecological approach to urban analysis" in explaining urban social life in any urban society?

3. With practical examples, discuss the social economic impact of exploding cities on urban societies in Developing Countries? Suggest social economic strategies to control urban population?

4. North Africa has been affected by unprecedented international migration of its nationals to Europe. Suggest Social Economic measures to reduce this international migration?

5. Discuss the social economic impact of social stratification (ethnicity, race and class) on modern societies? Provide practical examples for your answer.

6. Identify and discuss the social /cultural functions and dysfunctions of the city in the 21st century in Developing Countries. Give practical examples.

7. In what ways has urbanization weakened and strengthened the extended family in Low Developed societies? Give practical examples for your answer.

8. "Rural to urban migration benefits women", contends the pro modernization scholar. Discuss.

END OF EXAMINATION