NATIONAL UNIVERSITY OF LESOTHO

B.A SUPPLEMENTARY EXAMINATIONS

EC4310: PUBLIC FINANCE

AUGUST 2023	**100 MARKS**	**3 HOURS**

INSTRUCTION:

Answer **any four** Questions

Question 1

a. Borrowing is another revenue source especially in developing countries. Discuss the following under public borrowing:

   i. Reasons for public borrowing **[4]**

   ii. Sources of public borrowing **[5]**

b. Discuss all Schools of thought about the burden of the debt **[16]**

Question 2

a. According to Musgrave (1969), there is a relationship between tax structure and economic development. Identify and explain the various periods in the development process and the relative importance of tax in each period. **[10]**

b. The informal sector is very large in the economies of most African countries. As a tax policy expert/consultant, what measures would you propose for taxing the informal sector? **[15]**

Question 3

a. Compare and differentiate tax buoyancy and tax elasticity **[10]**

b. With proper illustration and using a simple tax evasion model, ***discuss*** the factors influencing individual's tax evasion decision. **[12]**

c. On the basis of arguments in (b.) above, explain three (3) ways in which tax evasion can be reduced. **[3]**

Question 4

a. Suppose that the supply curve for beer is given by $Q^s = 20 + 4P$ and the demand for beer is given by $Q^d = 50 - 2P$. Suppose further that a tax is imposed on the production of beer of M3 per unit of beer consumed. Illustrate graphically and mathematically the following:

   i. The pre-tax and post-tax equilibrium price and quantity of beer. **[5]**

   ii. The tax burden borne by the producer and consumer. **[5]**

   iii. The excess burden of the tax imposed on the production of beer. **[5]**

b. The level of savings in Africa is not sufficient to meet the level of investment rates considered necessary for rapid growth. Consequently, governments try to use taxation policy in order to mobilize savings to finance developments. Explain how income tax affects:

   i. Household Savings **[5]**

   ii. Business Investment **[5]**

Question 5

a. Assume there are two goods, cigarette (X) and fruit drink (Y). Derive the expression for excess burden of a selective excise tax on:

   i. Good X in terms of e_X, P_X, X and t_X **[2]**

   ii. Good Y in terms of e_Y, P_Y, Y and t_Y **[2]**

[**Hint**: e_i is the price elasticity of demand for good i, P_i is price of good i, t_i is the rate of tax on good i, where i is quantity of good X and Y, respectively]

b. Assuming that there are no cross-effects between cigarette (X) and fruit drink (Y), derive and explain the:

   i. Ramsey rule **[3]**

   ii. Inverse elasticity rule **[3]**

c. Discuss the benefits of tax haven on:

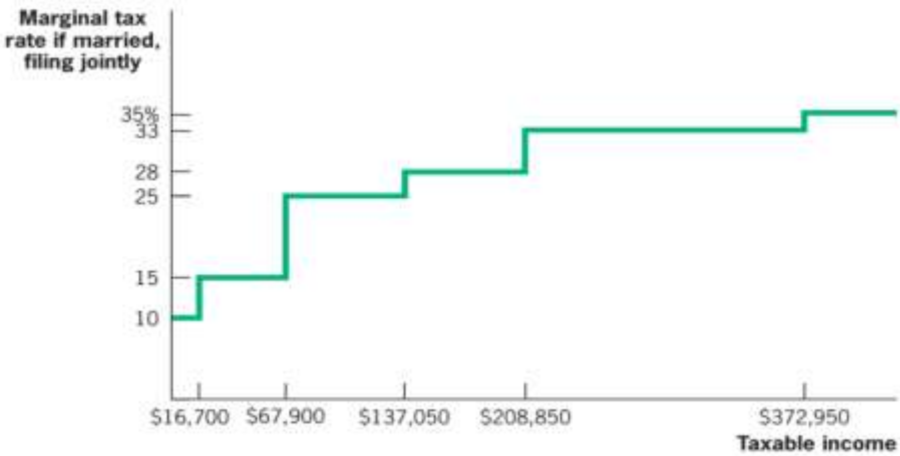
   i. Tax Haven Countries **[3]**

   ii. Individuals or Businesses **[2]**

d. Analyze the impact of imposing taxes on the owners of super markets within the general equilibrium framework of tax incidence. **[10]**

Question 6

a. The following diagram shows the U.S. Federal Income Tax Rate Schedule, 2020. The tax rate on the next dollar of taxable income varied from 10% on married couples with taxable incomes below $16,700 to 35% on those with taxable incomes above $372,950:



Assume that Santho and Ramotubei are working for African Development Bank and are each earnings $60, 000 and $55, 000, respectively. These gross incomes include the contributions to ***retirement savings***, ***exemption***s (a fixed amount of money that can be deducted for the taxpayer: the taxpayer’s spouse, and any other dependents who live in the house) and the ***standard deduction*** (a fixed amount that taxpayers can deduct from taxable income).

Retirement savings are given as \$2, 000, exemptions are \$3, 500 per person and standard deductions are \$11, 400. If Santho has a spouse and three children while Ramotubei is widowed with 2 children and a guardian as her dependent, how much will each pay to revenue services?

[15]

b. Suppose an individual decide to put M10 000 into retirement plan in one year (this year). Assume that he is in the 28 percent marginal tax bracket and interest on the saving is treated as normal income. If the money saved earns ten percent annually for 20 years, what will be income available in period 2 (NB: after 20 year assuming annual compounding, $(1+r)^t$)? **[10]**