

LAIKIPIA



UNIVERSITY

# UNIVERSITY EXAMINATIONS

2<sup>ND</sup> SEMESTER 2023/2024 ACADEMIC YEAR

SECOND YEAR EXAMINATION FOR THE DEGREE  
BACHELOR OF SCIENCE IN ECONOMICS AND  
STATISTICS

**ECON. 223: LABOR ECONOMICS**

***STREAM:*** *ECON-STAT*

***TIME:*** *2 HRS*

***DAY:*** *TUESDAY [2.40-4.30 P.M]*

***DATE:*** *16/04/2024*

**THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES**

**PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**



**INSTRUCTIONS**

1. Answer Question One and any other TWO questions.
2. Clearly show your workings

**QUESTION ONE (30 MARKS)**

Suppose the labor market for software developers is characterized by the following demand and supply functions:

Demand for Software Developers:  $Q_d=300-5P$

Supply of Software Developers:  $Q_s=50+3P$

Where  $Q_d$  is the quantity demanded of software developers (in thousands),  $Q_s$  is the quantity supplied of software developers (in thousands), and  $P$  is the wage rate per hour (in dollars).

**Required**

- a) Calculate the equilibrium wage rate and the equilibrium quantity of software developers. **(5 marks)**
- b) Suppose the government imposes a minimum wage of \$40 per hour. Calculate the surplus or shortage of software developers at this minimum wage and determine whether there is excess demand or excess supply in the market. **(5 marks)**
- c) If the government decides to subsidize software development education, reducing the cost of training for software developers by \$10 per hour, how will this affect the equilibrium wage rate and quantity of software developers hired? **(5 marks)**
- d) Calculate the new equilibrium wage rate and quantity of software developers from (c) above. **(5 marks)**
- e) Explain using numerical example how the concept of opportunity cost contribute to the understanding of the relationship between reservation wage and individual labor supply decision. **(10 marks)**

**QUESTION TWO (20 MARKS)**

In a particular industry, the labor union negotiates wages and benefits for its members. The union has recently negotiated a new contract that includes the following provisions:

A 10% increase in hourly wages for all unionized workers.

An additional \$2 per hour contribution to the pension fund for each worker. The current pension contribution by a worker is 6 percent of gross pay, with the employer matching up the same to the pension fund.



A one-time signing bonus of \$500 for each worker covered by the contract.

**Required**

- a) If the original hourly wage rate was \$20 per hour, calculate the new hourly wage rate after the negotiated increase. **(1 marks)**
  
- b) Determine the total hourly cost to the employer for each unionized worker, including both wages and pension contributions, under the new contract. **(2 marks)**
  
- c) Suppose there are 500 workers covered by the contract. Calculate the total additional cost to the employer per hour due to the negotiated wage increase and pension contributions. **(2 marks)**
  
- d) Explain the potential economic impacts of unions on labor markets, including their effects on wages, productivity, and employment levels. **(10 marks)**
  
- e) Explain how labor unions influence the inflation rate through their wage bargaining power and demands for cost-of-living adjustments. **(5 marks)**

**QUESTION THREE (20 MARKS)**

Explain the following wage theories

- a) Subsistence Theory **(4 marks)**
- b) Wage Fund Theory **(4 marks)**
- c) Residual Claimant Theory **(4 marks)**
- d) Marginal productivity Theory **(4 marks)**
- e) Modern Theory **(4 marks)**

**QUESTION FOUR (20 MARKS)**

- a) Discuss the Dual Labor Market Hypothesis and its implications for labor market discrimination. **(10 marks)**
- b) How does dual market hypothesis explain the persistence of wage differentials and occupational segregation? Provide examples to support your answer. **(10 marks)**

**QUESTION FIVE (20 MARKS)**

- a) Define non-sequential and sequential search in the context of unemployment. **(4 marks)**
- b) Explain how non-sequential and sequential search affects the duration and likelihood of finding a job. **(6 marks)**
- c) Discuss the factors that influence individuals' asking wages and their impact on unemployment and underemployment rates. **(10 marks)**

