### Assignment 9

**Unit 11 - Week 9 - Input-Output Analysis**

**Assignment Due**: 2020-04-01, 23:59 IST

**Course Outline**
- [Introduction to Input-Output Analysis](#)
- [Model Formulation](#)
- [Solution Methodology](#)
- [Economic Applications](#)

**Key Assumptions**
- General equilibrium assumption
- Restoration of the steady state equilibrium

**Questions**

1. Which of the following models is not suitable for long-term economic forecasting?
   - a. Econometric model
   - b. Input-Output model
   - c. Optimization model

2. In a typical Input-Output model, each sector is assumed to:
   - a. Produce goods and services
   - b. Use other sectors' products as inputs
   - c. Both a and b

3. Which among the following is not an assumption of Input-Output model?
   - a. Analytical method
   - b. Technical coefficients are constant
   - c. Econometric method

4. Which of the following is an example of Input-Output model?
   - a. Agricultural sector
   - b. Manufacturing sector
   - c. Service sector

5. In an Input-Output model, if the share of government expenditure on goods and services increases, what happens to the final demand?
   - a. Increases
   - b. Decreases
   - c. Remains unchanged

6. Consider a production function in the form of Q = aK + bL, where Q is the output, K is the capital, and L is the labor. If the capital increases by 20% and labor decreases by 10%, what is the percentage change in output?
   - a. 10%
   - b. 30%
   - c. 40%

7. In the Leontief model, if the demand for final goods increases by 10%, what happens to the demand for capital and labor?
   - a. Increases by 10%
   - b. Increases by 20%
   - c. Increases by 30%

8. The production function in an Input-Output model is typically expressed as:
   - a. Q = aK + bL
   - b. Q = aK - bL
   - c. Q = aK + bL - cL

9. In the Leontief production function, if the capital-labor ratio increases, what happens to the capital-output ratio?
   - a. Increases
   - b. Decreases
   - c. Remains unchanged

10. In the Leontief model, what is the relationship between the capital-output ratio and the capital-labor ratio?
    - a. Directly proportional
    - b. Inversely proportional
    - c. No relationship

11. If the demand for final goods increases by 10%, what happens to the demand for capital and labor?
    - a. Increases by 10%
    - b. Increases by 20%
    - c. Increases by 30%

12. The production function in an Input-Output model is typically expressed as:
    - a. Q = aK + bL
    - b. Q = aK - bL
    - c. Q = aK + bL - cL

13. The capital-output ratio is defined as:
    - a. Final demand divided by capital
    - b. Final demand divided by capital and labor
    - c. Final demand divided by labor

14. In the Leontief model, if the capital-labor ratio increases, what happens to the capital-output ratio?
    - a. Increases
    - b. Decreases
    - c. Remains unchanged

15. If the demand for final goods increases by 10%, what happens to the demand for capital and labor?
    - a. Increases by 10%
    - b. Increases by 20%
    - c. Increases by 30%