

UNIVERSITY OF SWAZILAND

DEPARTMENT OF ECONOMICS

FINAL EXAMINATION PAPER 2012/13

TITLE OF PAPER:            TRANSPORT ECONOMICS

COURSE CODE:             ECON 426

TIME ALLOWED:            THREE (3) HOURS

**INSTRUCTIONS:**        **1. ANSWER FOUR QUESTIONS**  
                              **2. ALL QUESTIONS CARRY EQUAL MARKS,**  
                              **OF 25 EACH.**

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS  
BEEN GRANTED BY THE INVIGILATOR.**

**QUESTION 1**

- (i) Define the role played by government in privatization. **(4)**
- (ii) Discuss three (3) benefits of privatization. **(6)**
- (iii) Define the minimum subsidy contract process of transferring ownership. **(3)**
- (iv) Give three (3) advantages and disadvantages of the minimum subsidy contract. **(12)**

**QUESTION 2**

- (i) Describe two (2) ways how recurring congestion occur. **(3)**
- (ii) Discuss four negative effects of traffic congestion. **(12)**
- (iii) Discuss two actions for reducing traffic congestion under Travel Demand Management. **(10)**

**QUESTION 3**

The planning process for projects requires a number of stages to be undertaken. Describe the stages involved. **(25)**

**QUESTION 4**

- (i) Discuss any four decision making models/processes in transport. **(20)**
- (ii) Why would you advise a middle income person to follow the rational decision making process? **(5)**

**QUESTION 5**

Logico Transport (Pty) Ltd transport bales of sugar to the three Pick 'n Pay stores (Manzini, Matsapha, and Mbabane). The company purchases the sugar from two companies: Mananga Packers and Illovo (Big Bend). The sugar demands for the three stores are: Manzini 400 bales, Matsapha 200 bales; and Mbabane 300 bales.

Contracts have been entered into to provide the following quantities: Mananga Packers 500 bales, and Illovo 400 bales.

The distribution costs per unit (in Emalangeni) are as follows:

From	To		
	Manzini	Matsapha	Mbabane
Mananga Packers	10	20	15
Illovo	12	15	18

- a) Develop a network representation of this problem. **(10)**
- b) Develop a linear programming model that can be used to minimize the total distribution costs; make sure you define the variables in your model. **(15)**

**QUESTION 6**

- (i) Discuss three roles that transport can play in the economic development of a country? **(12)**
- (ii) Give two advantages and disadvantages of the cost-only contract of Privatisation. **(8)**
- (iii) Discuss two ways of reducing traffic congestion under the Transport System Management strategy. **(5)**