UNIVERSITY OF SWAZILAND

DEPARTMENT OF ECONOMICS

FINAL EXAMINATION PAPER 2005/06

TITLE OF PAPER: TRANSPORT ECONOMICS

COURSE CODE: ECON 423

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS:

1. ANSWER FOUR QUESTIONS: TWO QUESTIONS FROM SECTION A, AND TWO QUESTIONS FROM SECTION B.

2. ALL QUESTIONS CARRY EQUAL MARKS, OF 25 EACH.

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

SECTION A

QUESTION 1

Why do people prefer using individual or privately owned cars when travelling? What are the consequences of such a trend? **(25)**

QUESTION 2

(i) Transport has inelastic price elasticity of demand. Explain why? **(5)**

(ii) The price elasticity of transport can be classified into four types. Discuss any two. **(10)**

(iii) Discuss any other two factors affecting demand for transport besides the price of transport. **(10)**

QUESTION 3

(i) Define privatisation in the context of transport. **(5)**

(ii) Discuss any two factors that affect crash costs. **(5)**

(iii) Transport is considered to be a major contributor to environmental impacts, discuss any two impacts caused by transport? **(10)**

(iv) Why is it important to understand the pattern of the demand for car ownership? **(5)**

QUESTION 4

(i) Explain how demand can be used in pricing transportation services? **(10)**

(ii) In view of the fluctuations in transport demand especially in public transport, what adjustments or mechanisms would you suggest to a bus service provider? **(15)**

SECTION B

QUESTION 5

Is traffic congestion a bad thing? Give arguments for congestion being a bad thing and arguments for congestion considered as not a bad thing. **(25)**

QUESTION 6

A certain Company imports it products from two ports: Maputo and Durban. Shipments of its products are made to customers in Manzini, Mbabane, Nelspruit and Piggs Peak. The supply at each port, customer demands, and shipping costs per product from each port to each customer are as follows:

	CUSTOMERS				
PORT	Manzini	Mbabane	Nelspruit	Piggs Peak	Port Supply
Maputo	2	6	6	2	5000
Durban	1	2	5	7	3000
Customer Demand	1400	3200	2000	1400	

(i) Develop a network model of the distribution system. **(10)**

(ii) Develop a linear programming model for minimising the transportation costs. You should define the variables in your model. **(15)**

QUESTION 7

(i) In the past forty to fifty years transport planning was focused on coming up with a plan on how to provide the necessary highway capacity to accommodate the increasing demand of road space. Discuss the problems of maintaining this planning approach in recent years. What other issues have to be considered? **(18)**

(ii) Discuss the process a rational decision maker would follow. How can you advise one using this process on what type of car to purchase? **(7)**

QUESTION 8

(i) Discuss any three functions that transport can play in the economic development of a country? **(9)**

(ii) Congestion charging in some cities around the world, e.g. London, have been introduced in an effort to reduce traffic congestion. Discuss three other methods other than congestion charging that can be used to reduce traffic congestion. **(9)**

(iii) How does the JIT technology help in the case of perishable goods such as milk or newspaper? **(7)**