

UNIVERSITY OF SWAZILAND

FACULTY OF SOCIAL SCIENCE

DEPARTMENT OF ECONOMICS

FINAL EXAMINATION PAPER 2009/2010

COURSE TITLE : TRANSPORT ECONOMICS

COURSE CODE : ECON 423

TIME ALLOWED : THREE (3) HOURS

INSTRUCTIONS : THIS QUESTION PAPER IS DIVIDED INTO THREE (3) SECTIONS. ANSWER ONE (1) QUESTION IN SECTION A, TWO (2) QUESTIONS IN SECTION B AND ONE (1) QUESTION IN SECTION C.

2. ALL QUESTIONS CARRY EQUAL MARKS.

DO NOT OPEN THIS QUESTION PAPER UNTIL TOLD TO DO SO BY INVIGILATOR

SECTION A**ANSWER ONE (1) QUESTION FROM THIS SECTION****Question 1**

As a transport manager for Mavukuvuku Pty LTD, a freight company, your task is to calculate the amount to charge for shipping 1000 boxes, each weighing 20 kilograms and measuring 3 cubic metres, from Matsapha to Rustenburg, South Africa, which is a distance of 1000 Km for a return trip. The capacity of the trailer is 40,000 kilograms and 3,100 cubic metres.

The following information is also available to you for costing the client.

<u>Vehicle Data</u>	<u>Power Unit</u>	<u>Trailer</u>
Purchasing Price	E900,000.00	E450,000.00
Residual Value	E300,000.00	E200,000.00
Repair and Maintenance for every 10,000Km	E1,000.00	E600.00
Depreciation	10 years/800,000Km	15 years/900,000Km
Vehicle Insurance per month	E8,000.00	E2,500.00
Number of Tyres	10	12
Cost Per Tyre	E8,000.00	E8,000.00
Lifetime of Tyre in Kilometres	50,000	50,000
Fuel Consumption when loaded	0.75L/Km	
Fuel Consumption when empty	0.5L/Km	
Fuel Price per Litre	E9.00	

Other Costs

Driver's Wages per Year	E100,000.00
Interest Rate (%)	10
Allowance on Expenses per Round Trip	E500.00
Profit Margin (%)	10
Effective Hours available for truck per year	2400
Pickup Time (Hrs)	6
Journey time for return trip (hrs)	20
Delivery/Off-loading (hrs)	2

- a) How much should the company charge for the shipment of the goods? [15 marks]
- b) After giving a quotation to the client that is valid for fourteen (14) days, fuel price increases by 10%. Is it still profitable for the company to ship the goods? [10 marks]

Question 2

Help Mr M. Mthembu decide whether to rent a permit to run a 70 seater bus that will operate between Manzini and Simunye for the next four years at an initial cost of E350,000. At the end of each year, he expects to receive net revenues equal to E100,000, E125,000, E150,000 and E175,000. Alternatively Mr Mthembu can work for Phinduvuke Bus Service as a transport manager for a fee of E40,000 a year.

- a) If the interest rate is expected to be 8% over the 4 year period, what is the maximum amount of money that Mr Mthembu should be willing to pay for the permit? Should he enter the business? [17 marks]
- b) If the initial cost outlay fell to E300, 000, would this alter his decision? [8 marks]

SECTION B

ANSWER TWO (2) QUESTIONS FROM THIS SECTION

Question 3

- a) Discuss five (5) ways in which Road transport and road transport infrastructure harms the environment. Also suggest ways in which these problems can be ameliorated. [15 marks]
- b) Use the revealed preference method to show how a person living at Sikhuphe will be affected by the Sikhuphe International Airport that is being constructed. [10 marks]

Question 4

- a) The demand for transport is referred to as a “*derived demand*”. Briefly explain why this is so. [5 marks]
- b) Discuss five (5) factors that affect the demand for transport. [10 marks]
- c) Explain why “*Peak Demand*” can be a problem for the public transport operator. Further suggest some ways in which the operator can solve this problem. [10 marks]

Question 5

- a) Explain and graphically illustrate how transport costs and land rent determine the housing location of different society classes in an urban area. [12 marks]
- b) How do authorities determine the optimal congestion charge? [13 marks]

Question 6

- a) The provision of rural transport should be based on need rather than demand. Explain.
[5 marks]
- b) Rural transport provision is considered as the main ingredient for rural development, which in turn leads to poverty reduction. Critically analyse this statement.[10 marks]
- c) Why should the transport planner be concerned with gender roles in transport.
[10 marks]

SECTION C

ANSWER ONE (1) QUESTION FROM THIS SECTION

Question 7

- a) What is the vision of the transport sector in Swaziland, as entailed in the “Swaziland National Transport Policy” document. [5 marks]
- b) Outline five (5) overall policy objectives and strategies of the transport sector as stated in the Swaziland National Transport Policy that will help Swaziland achieve its National Development Strategy (NDS) objectives. [10 marks]
- c) Under the “Road Infrastructure” sub-sector, discuss two (2) issues, policies and strategy statements. [10 marks]

Question 8

- a) Distinguish between economic and noneconomic regulation in transport. [5 marks]
- b) Explain the necessity for government involvement in transport planning. [5 marks]
- c) Discuss the transport planning process. [15 marks]

“Best of Luck”