



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF COMMERCE, HUMAN SCIENCE AND EDUCATION**

**DEPARTMENT OF MARKETING AND LOGISTICS**

<b>QUALIFICATION: BACHELOR OF TRANSPORT MANAGEMENT</b>	
<b>QUALIFICATION CODE: 07BTRA</b>	<b>LEVEL: 7</b>
<b>COURSE CODE: ATE711S</b>	<b>COURSE NAME: ADVANCE TRANSPORT ECONOMICS</b>
<b>SESSION: JUNE 2022</b>	<b>PAPER: THEORY</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Dr Smart Dumba Mr. Mukela Mabakeng Ms. Hilma Nuuyandja
<b>MODERATOR:</b>	Mr Sem Tangeni Kalumbu

<b>INSTRUCTIONS</b>
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

**THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)**



## QUESTION 1

[1x10 Marks]

Answer the following five questions either 'True' or 'False'.

1. A free-market system means government intervention is limited, and supply is not regulated.
2. The demand for transport is viewed as underived demand.
3. "Elastic demand or elastic supply is one in which the elasticity is greater than one, indicating high responsiveness.
4. Average generalised costs per kilometre of the trip is calculated using the following equation;  
$$C_{it} = PC_{it} - TT_{it}(VOT_{it} + VOR_{it} - DC_{it}).$$
5. How different people value their travel time includes the socio-economic status of an individual.
6. Whenever a good is sold at a price more than its marginal cost, there is an incentive to engage in price discrimination.
7. Transport subsidies are aimed at increasing the cost of certain transport modes, such as public transport.
8. Environmental regulations seek to control the amount, nature and frequency of the positive environmental benefit generated by transport-related activities.
9. Social welfare is maximised where the Marginal Social Cost curve meets the Marginal Social Benefit curve.
10. Variable costs refer to the costs that remain unchanged as the movement and level of traffic change.

**Sub-total: [10 Marks]**

## QUESTION 2

2.1 Define the following terms

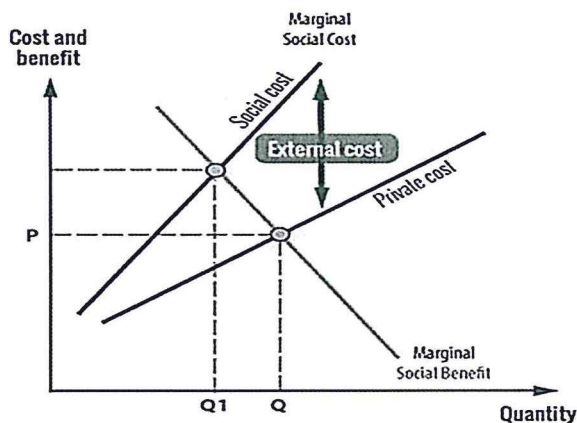
- |                                      |            |
|--------------------------------------|------------|
| a) Economies of scale                | (5 Marks ) |
| b) First best pricing                | (5 Marks ) |
| c) Second best pricing               | (5 Marks)  |
| d) First-degree price discrimination | (5 Marks)  |

**Sub-total: [20 Marks]**



### QUESTION 3

- 3.1 Using examples, discuss the reasons for government intervention in the transport market (10 Marks)
- 3.2 Explain the economic principles that underpin road pricing. (10 Marks)  
The main economic principles relate to reducing market failure, namely to produce a better allocation of resources in the way that roads are currently used. At present, the prices paid by road users are muddled. Some (e.g. peak users in central areas of cities) do not pay enough, and others (e.g. rural road users) pay too much. Marginal social costs do not equal marginal private costs. Road user charging on a national scale seeks to address this problem by taking into account when, where and in what traffic conditions vehicles are used.
- 3.3 Describe and explain the following graph as it relates to transport induced negative environmental externalities? (10 Marks)



**Sub-total: [30 Marks]**

### QUESTION 4

- 4.1 Differentiate between mobility and accessibility and discuss how their definitions affect transportation projects and programs? (20 Marks)
- 4.2 Economic evaluation is vital in transport investments as it involves the assessment of the net value of projects and policies. A framework for evaluation specifies the basic structure



of the analysis to allow for clear and consistent evaluation and comparison. Name and discuss the aspects that form a basic evaluation framework of a transport project or policy?

(20 Marks)

**Sub-total: [40 marks]**

**Grand Total: 100 marks**

*Sam [Signature]*

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