



**PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF MARKETING, LOGISTICS AND SPORT MANAGEMENT

QUALIFICATION: BACHELOR OF TRANSPORT MANAGEMENT	
QUALIFICATION CODE: 07BTRA	LEVEL: 7
COURSE CODE: ATE711S	COURSE NAME: ADVANCED TRANSPORT ECONOMICS
SESSION: JULY 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SUPPLEMENTARY / SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER	Ms. Hilma Nuuyandja
MODERATOR	Ms Tunomukumo Thikusho

INSTRUCTIONS
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

Multiple choice questions

[2x 10 Marks]

1. Transportation demand refers to:
 - a) The quantity of transportation services consumers are willing and able to purchase at a given price.
 - b) The supply of transportation services available in the market.
 - c) The responsiveness of transportation demand to changes in price.
 - d) The total costs associated with transportation.

2. "External costs" of transportation refer to:
 - a) Costs incurred by transportation companies in providing services.
 - b) Costs borne by society as a whole but not directly paid by transportation users.
 - c) Costs associated with vehicle maintenance and fuel expenses.
 - d) Costs of accidents and road infrastructure maintenance.

3. In transportation economics, what does "opportunity cost" primarily refer to?
 - a) The actual expenses incurred in using transportation services.
 - b) The value of the next best alternative foregone when a choice is made.
 - c) The total costs associated with a transportation project.
 - d) The additional benefits gained from using transportation services.

4. What impact does "horizontal equity" aim to achieve in transportation pricing?
 - a) Ensuring that users with similar incomes pay similar prices for road usage.
 - b) Minimizing overall social costs and environmental impacts of transportation.
 - c) Reducing traffic congestion and improving traffic flow on roadways.
 - d) Encouraging sustainable modes of transportation such as cycling and walking.

5. The concept of "value of time" in transport economics refers to:
 - a) The monetary cost of travel
 - b) The importance of punctuality in travel
 - c) The opportunity cost of travel time
 - d) The cost of travel insurance

6. The concept of "road space rationing" in transport economics involves:
 - a) Setting prices higher during peak demand periods to manage congestion
 - b) Offering discounts for off-peak travel to incentivize spreading demand throughout the day

- c) Charging higher fares for long-distance journeys compared to short trips
 - d) Implementing a flat rate regardless of the time of travel
7. In transport economics, what does the term "mobility" refer to?
- a) The ease of movement within a transportation network
 - b) The total distance travelled by individuals or goods
 - c) The ability of individuals or goods to move from one location to another
 - d) The speed at which transportation networks operate
8. Which of the following is NOT a measure of economic impact in transportation analysis?
- a) Gross domestic product (GDP).
 - b) Employment levels.
 - c) Vehicle speed.
 - d) Tax revenue.
9. What is the rationale behind conducting economic impact analyses of transportation investments?
- a) To assess the potential effects of transportation projects on economic activity, employment, and income
 - b) To determine the financial viability of transportation projects
 - c) To evaluate the environmental impact of transportation investments
 - d) To identify potential safety hazards associated with transportation projects
10. What is the foundation of Input-Output (IO) modelling in economic impact analysis?
- a) The interdependence of different sectors of the economy
 - b) The principle of cost-benefit analysis
 - c) The relationship between transportation and land use
 - d) The concept of economies of scale in production

Sub-total: 20 Marks

QUESTION 2

[2x 10 Marks]

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

1. Supply of transport represents the quantity of transportation services available in the market.
2. Providing improved travel time and travel time reliability is generally among the largest societal benefits from transportation infrastructure projects.

3. The general principle of cost benefit analysis is to assess whether or not the social and economic benefits associated with transport project are less than its social and economic costs.
4. Deregulation in transportation typically leads to increased government intervention in the industry.
5. Accessibility refers to the speed at which transportation networks operate.
6. Transport subsidies are aimed at increasing the cost of certain transport modes, such as public transport.
7. Only if transport is evaluated in terms of access can strategies that reduce the need for travel, such as telework and more efficient land use, be considered as solutions to transport problems.
8. Measures to improve horizontal equity in road pricing aim to ensure fairness in the distribution of transportation costs among users.
9. Second-best pricing aims to maximize social benefits by setting prices at an optimal level.
10. Transport economics is a field of study aimed at minimising social welfare.

Sub-total: 20 Marks

QUESTION 3

- 3.1 Why is it important to understand the concept of generalised costs in transport economics? (10 marks)
- 3.2 Discuss the concept of internalizing external costs in transportation and its significance for sustainable transportation policy. Provide examples of external costs associated with different modes of transportation and propose strategies for effectively internalizing these costs. (14 marks)

Sub-total: 24 Marks

QUESTION 4

- 4.1 Explain the concept of accessibility and mobility in transportation planning. (6 marks)
- 4.2 Analyse the impacts of transportation infrastructure investments on land values and economic development, providing examples to support your analysis. (15 marks)
- 4.3 Explain the rationale for conducting economic impact analyses of transportation investments. (15 marks)

Sub-total: 36 Marks

Grand Total: 100 Marks