



FACULTY/COLLEGE	College of Business and Economics
SCHOOL	Johannesburg Business School
DEPARTMENT	Transport and Supply Chain Management
CAMPUS(ES)	APK
MODULE NAME	Transport Economics 1A
MODULE CODE	TRE11A1
SEMESTER	First
ASSESSMENT OPPORTUNITY, MONTH AND YEAR	Final Summative Assessment Opportunity June 2019

ASSESSMENT DATE	12 June 2019	SESSION	08:30 – 10:30
ASSESSOR(S)	Mrs. C. Celliers		
MODERATOR(S)	Mr. L. Jacobs		
DURATION	2 hours (120 mins)	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	7
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INFORMATION/INSTRUCTIONS:

- This is a closed-book assessment.
- Answer all the questions.
- Read the questions carefully and answer only what is required.
- Number your answers clearly and correctly as per the question paper.
- Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.

QUESTION 1

[30 MARKS]

Important note: Use the multi-choice answer sheet provided to register your answers.

- 1.1 The concepts of scarcity, choice and opportunity costs can be illustrated on which curve?
- Efficiency curve
 - Demand curve
 - Production possible frontier
 - Supply curve
- 1.2 The _____ economy is where the government directly addresses the three questions of what to produce, how to produce and for whom to produce.
- Free market
 - Mixed market
 - Command
 - Hybrid
- 1.3 In a free market economy the question 'what to produce' is resolved by _____.
- Producers
 - Consumers
 - Both producers and consumers
 - Government
- 1.4 The basic tools of a transport economist are drawn from:
- Microeconomics
 - Macroeconomics
 - The Department of Transport
 - Transport policy
- 1.5 Which of the following relate to microeconomics?
- Determinants of demand for a particular mode of transport
 - Determinants of demand for a particular journey
 - Concerns the level of inflation
 - Concerns the level of unemployment

Answer

- i and ii
 - ii and iii
 - i, ii, iii and iv
 - ii, iii and iv
- 1.6 Which of the following represents the basic economic problem of scarcity?
- Making a choice whether to use the bus, the Gautrain, to walk or cycle home
 - The effects of changes in road pricing on congestion
 - The rise of low-cost airlines
 - The impact of traffic on the environment

- 1.7 Widgets have become the latest fad. Everyone wants one and stores are selling out fast. The factory increased production. This is an example of ____.
- Consumer sovereignty
 - Due process
 - Opportunity cost
 - Circular flow
- 1.8 The type of economy a country has is determined by the amount of ____.
- Government involvement
 - Judicial review
 - Economic interest
 - Circular flow
- 1.9 The movement towards a consumer society implies higher levels of demand for goods and services, quicker consumption and the resultant need to produce more goods and services. This, in turn, requires the employment of more labour, which leads to increased incomes, increased expenditure and increased demand for freight transport. This trickle-down effect is known as:
- The virtuous cycle
 - The multiplier effect
 - The association effect
 - Demand-induced freight demand
- 1.10 In the past, when modes of transport did not exist, people lived a self-sufficient lifestyle characterised by the following:
- No separation of production from consumption
 - No specialisation
 - No division of labour
 - No trade
- Answer:
- ii and iii
 - ii, iii and iv
 - i and iv
 - i, ii, iii and iv
- 1.11 One of the major issues facing policy makers is what is known as the 'decoupling' of GDP from transport. Which of the following could be implemented as a strategy to address this issue?
- Increased fuel prices and road usage taxes
 - Increased subsidy levels to bus operators in rural areas
 - A shift from road to rail, water and public passenger transport
 - Reduction in motor vehicle prices and toll charges
- 1.12 The higher up Maslow's hierarchy of needs, on the whole, the lower the demand for transport, as these needs are about how people think about themselves.
- True
 - False

- 1.13 The law of demand states that as the price of a good or service increase, the quantity of goods or services demanded _____?
- Decreases
 - Increases
 - Remains unchanged
 - Increases then decreases
- 1.14 Luxury goods are goods whose demand _____ when price _____?
- Increases, increases
 - Increases, decreases
 - Decreases, increases
 - Decreases, decreases
- 1.15 The demand for transport services is?
- Inelastic
 - Time specific
 - Latent
 - Revealed
- 1.16 Normal and inferior goods are associated with which determinant of demand?
- Income
 - The price of other goods and services
 - Fashion or trends
 - Expectations of future price rises
- 1.17 Examination of cross-price elasticity of demand for transport services involves examining services at different levels. For which of the following combinations can cross-price elasticity of passenger transport be calculated?
- Train vs car
 - Economy class vs business class ticket on a South African Airways flight
 - Pipeline vs ship
 - Metrobus vs Putco
- Answer:
- i and ii
 - ii and iii
 - iii only
 - i, ii and iv
- 1.18. The fact that the expenditure of food as a percentage of income has declined as income has increased indicates that food:
- Is an inferior good
 - Is a luxury good
 - Has an income elasticity of demand less than unity
 - Is a normal good with an elastic demand
- 1.19. Price elasticity of demand is:
- Customer's responsiveness to changes in the price of the service
 - The fare price charged by the operation to earn normal profit
 - The supplier's responsiveness to changes in the cost of production
 - All of the above

- 1.20. When assessing the efficiency of the production of transport services, allocative efficiency could be measured by assessing the level(s) of:
- Profit
 - Output
 - Input/output
 - Cost of production
- 1.21. The efficiency of a bus service provider can be assessed by analysing the:
- Input/output ratio
 - Labour/output ratio
 - Profit/input ratio
 - Capital/output ratio
- 1.22. Monotonic production occurs when:
- A decrease in inputs leads to an increase in output
 - An increase in outputs leads to an increase in inputs
 - An increase in inputs leads to an increase in output
 - A decrease in output leads to an increase in inputs
- 1.23. _____ is achieved where the minimum level of inputs is used to produce a given level of output.
- Technical efficiency
 - Allocative efficiency
 - Cost allocative efficiency
 - Productive efficiency
- 1.24. _____ is a source of diseconomies of scale
- Bureaucracy
 - X-inefficiency
 - Geographic location
 - Red tape
- 1.25. Using the economist's definition of time, the short run is defined as the time period:
- Between 6 to 12 months
 - During which at least one factor of production is fixed
 - During which all factors of production are fixed, including technology
 - During which output can be varied through variation of all the inputs
- 1.26. Under perfect competition, consumers can switch from one operator's service to another at zero transaction cost. This means the operators' demand curve is:
- Perfectly inelastic
 - Inelastic
 - Perfectly elastic
 - Unitary elastic
- 1.27. Which market structure achieves allocative efficiency?
- Monopoly
 - Perfect competition
 - Oligopoly
 - Monopolistic completion

1.28. Which of the following are the conditions for perfect competition?

- i. Freedom of entry and exit
- ii. Heterogeneous products
- iii. High number of buyers and sellers
- iv. Information dissymmetry

Answer:

- a. i and iv
- b. ii and iii
- c. i and iii
- d. i, iii and iv

1.29. Market failure occurs when:

- a. One of the conditions of perfect competition is breached and the market does not achieve economic efficiency
- b. When the average revenue curve lies above the marginal revenue curve and the firm incurs losses
- c. There is an imbalance of trade between the consumer and the product in favour of the producer
- d. When a company charges a particular consumer a higher price than others for the same product

1.30. Under which market structure do firms charge similar prices but differentiate the product or service offered?

- a. Monopoly
- b. Oligopoly
- c. Perfect competition
- d. Monopolistic competition

QUESTION 2

[15 MARKS]

2.1 The effects of the various determinants of supply and demand on the market price and quantity traded can be illustrated using graphs. Explain the effects, of an increase in the level of subsidy paid to bus operators, on the market price and quantity traded of bus services. Illustrate your answer using a graph. (5 Marks)

2.2 Describe and explain the long run profit-maximizing position of a bus operator providing services in a perfectly competitive market. Illustrate your answer using graphs. (10 marks)

QUESTION 3

[10 MARKS]

You are now ready to play the part of the manager of the public transit system. Your finance officer has just advised you that the system faces a deficit. Your board does not want you to cut service, which means that you cannot cut costs. Your only hope is to increase revenue. Would a fare increase boost revenue?

You consult the economist on your staff who has researched studies on public transportation elasticities. She reports that the estimated price elasticity of demand for the first few months after a price change is about -0.3 , but that after several years, it will be about -1.5 .

3.1 Explain why the estimated values for price elasticity of demand differ.(2)

3.2 Compute what will happen to ridership and revenue over the **next few months** if you decide to raise fares by 5%.(3)

- 3.3 Compute what will happen to ridership and revenue over the **next few years** if you decide to raise fares by 5%. (3)
- 3.4 What happens to total revenue now and after several years if you choose to raise fares? (2)

QUESTION 4**[15 MARKS]**

The level of output and the number of units of labour utilised in the provision of rail services are shown in the table below. Fixed costs amount to R 10 000 and the price of a variable factor is R500.

Production				Costs				
Labour units	Output produced (000s)	Average product (000s)	Marginal product (000s)	Total fixed costs	Total variable costs	Total costs	Average total costs	Marginal costs
0	0							
1	50							
2	110							
3	180							
4	260							
5	350							
6	420							
7	480							
8	530							
9	570							
10	590							

- 4.1 Complete the table. (7)
- 4.2 What units is the level of output measured in? (2)
- 4.3 What is the most efficient level of output in terms of:
- Technical efficiency and why(3)
 - Cost efficiency and why (3)

QUESTION 5**[15 MARKS]**

The link between transport levels (freight and passenger transport) and economic wealth has never been in question and studies have shown that the two are highly correlated. Distinguish between the demand led and supply led views of economic development and freight transport.

QUESTION 6**[15 MARKS]**

Pricing of transport services determines who gets and who does not get a particular service and the distribution of the rewards between the provider and the user of transport services. Differentiate between price discrimination, predatory pricing and price fixing.