



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	
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COURSE CODE: TOC621S	COURSE NAME: TRANSPORT OPERATIONS AND COSTING
SESSION: NOVEMBER 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS	
1. Answer ALL the questions. 2. Read all the questions carefully before answering. 3. Number the answers clearly.	

THIS QUESTION PAPER CONSISTS OF _7_ PAGES (Including this front pages

SECTION A: SHORT ANSWER QUESTIONS**50 MARKS****QUESTION 1: MULTIPLE CHOICE****Write the letter next to the correct answer.****2X20=40 MARKS**

1. As a transport consultant, you are advising a government on improving its transportation infrastructure. They are interested in reducing congestion and improving traffic flow in a major city. Which transportation principle should you emphasise to achieve this goal?
 - A. Engineering principles
 - B. Economic principles
 - C. Planning and Policy
 - D. Technological advancements

2. You are the manager of a logistics company handling international cargo shipments. A client has time-sensitive cargo that needs to be transported from Asia to Europe. You have to consider cost, speed, and reliability. Which combination of transport modes would you recommend?
 - A. Road and rail
 - B. Air and sea
 - C. Pipeline and road
 - D. Rail and sea

3. Your company manufactures fragile electronic components that are exported worldwide. You need to select a transportation mode that ensures minimal damage during transit. What dimension of transport geography should you primarily focus on?
 - A. Economics
 - B. Engineering
 - C. Environment/Ecology
 - D. Technology

4. You are responsible for optimising a supply chain for a retail company. The challenge is to deliver products efficiently while minimising transportation costs. What should you consider when determining the mode of transport for various goods?
 - A. Distribution of shipment
 - B. Topography
 - C. Physical attributes of the shipment
 - D. History of transportation networks

5. A city's municipal council is responsible for managing various services, including public transportation and urban planning. What advantage does this local governance structure offer in terms of transportation planning?
 - A. Faster decision-making
 - B. Greater financial capacity
 - C. Reduced competition
 - D. Limited resources

6. In the context of Namibia's transport industry, how does the Ministry of Works and Transport influence the regulatory framework? What is the primary role of the Ministry of Works and Transport?
 - A. Enforcing traffic laws
 - B. Developing transport infrastructure
 - C. Managing public transportation
 - D. Overseeing aviation safety

7. The Road Traffic and Transport Act is pivotal for regulating road transport in Namibia. What are the key aspects covered by this act? What does the Road Traffic and Transport Act establish for the control of traffic on public roads?
 - A. Regulations for air transport
 - B. Licensing of drivers
 - C. Regulations for sea transport
 - D. Management of railway operations

8. The Namibian Ministry of Works and Transport is considering restructuring the railway industry to make it more efficient and attractive to private investors. What are some potential advantages and disadvantages of such a restructuring?
 - A. Advantages: Attracting private investment, improving efficiency; Disadvantages: Loss of government control, potential fare increases.
 - B. Advantages: Increased government control, lower fares; Disadvantages: Limited competition, inefficiency.
 - C. Advantages: Reduced operational costs, more competition; Disadvantages: Decreased safety, loss of jobs.
 - D. Advantages: Enhanced safety standards, lower government expenditure; Disadvantages: Increased fare rates, complex regulations.

9. A new operator in the road transport industry in Namibia wants to ensure compliance with all regulations. What steps should they take to obtain an operator's license and maintain safety standards in their operations?
 - A. Apply for the license, complete a training course, and regularly inspect vehicles.
 - B. Apply for the license, pass an examination, and ensure drivers adhere to working hour restrictions.

- C. Apply for the license, demonstrate good industrial knowledge, and prioritize environmental compliance.
 - D. Apply for the license and maintain adequate financial resources.
10. A city is planning to implement Intelligent Transport Systems (ITS) to improve traffic management. You are tasked with assessing the potential barriers. What are the primary challenges that you anticipate in the implementation of ITS in the city?
- A. Insufficient funding and lack of skilled professionals
 - B. Minimal public interest and low traffic congestion
 - C. Excessive integration with other transport modes
 - D. A Minimal technology adoption by the public
11. A transportation agency is exploring the use of Artificial Intelligence (AI) in managing traffic flow. You are tasked with explaining how AI can be applied effectively. In what ways can AI-driven traffic management systems reduce travel time and enhance road safety?
- A. By increasing traffic congestion and road accidents
 - B. By simplifying complex transactions for road users
 - C. By optimizing traffic light systems and monitoring vehicle movements
 - D. By discouraging the use of restricted lanes
12. In a rapidly growing urban area, road congestion is a significant issue. The local government is considering implementing intelligent traffic systems to address this problem. What are the strategic benefits of implementing intelligent traffic systems in managing urban road congestion?
- A. To construct new road infrastructure and increase road capacity.
 - B. To enhance traffic signal synchronisation.
 - C. To improve the efficiency of traffic flow and reduce congestion.
 - D. To organise public events and parades.
13. A city is planning to introduce a demand management program to reduce traffic congestion during peak hours. How can a demand management program contribute to reducing traffic congestion, and what measures might be included in such a program?
- A. By building more highways and bridges and implementing toll booths.
 - B. By encouraging flexible working hours and telecommuting.
 - C. By increasing the number of traffic signals at intersections.
 - D. By organising more public events and festivals.
14. Explain the advantages of advanced traffic signal control systems and how they can positively impact urban traffic management.
- A. They primarily regulate vehicle emissions and reduce pollution.

- B. They increase the number of traffic lights at intersections for better control.
 - C. They can reduce delays, stops, and fuel consumption by coordinating traffic signals.
 - D. They focus on organizing sports events to divert traffic.
15. A company managing a fleet of delivery trucks is considering adopting telematics and onboard observation systems. Describe how the integration of telematics and onboard observation systems can enhance fleet management and efficiency for the delivery company.
- A. Telematics and onboard observations are unrelated to fleet management.
 - B. Telematics can help schedule more deliveries, while onboard observations focus on vehicle maintenance.
 - C. Telematics provide real-time tracking, and onboard observations monitor vehicle performance.
 - D. Telematics help with weather monitoring for safer deliveries.
16. A major city is exploring options for reducing traffic-related pollution and improving air quality. Discuss the strategies and technologies that can be employed to mitigate traffic-associated pollution and improve air quality in urban areas.
- A. Constructing more roads and highways to reduce congestion.
 - B. Implementing higher speed limits to reduce travel time.
 - C. Introducing measures like road weather management.
 - D. Implementing traffic management measures and promoting cleaner transportation options.
17. In a railway system operating at Level 3 of traffic management, multiple trains run along a single line. What potential conflicts might arise at this level, and how do they impact railway operations?
- A. Conflict between passengers and train crew
 - B. Allocation set conflicts and connection conflicts
 - C. Weather-related delays and timetable issues
 - D. Track maintenance issues and signal malfunctions
18. Suppose a railway company fails to consider passenger behavior when designing luggage storage areas. How might this oversight impact passenger experience and operational efficiency?
- A. Improved on-time performance and reduced delays
 - B. Enhanced passenger comfort and satisfaction
 - C. Increased boarding and deboarding times
 - D. Decreased energy consumption and lower operating costs

19. In what ways can the utilization of data science and advanced analytics reshape the airline industry's competitive landscape?
- A. By reducing ticket prices.
 - B. Through personalized offers and dynamic pricing.
 - C. By increasing aircraft speed.
 - D. By improving in-flight entertainment.
20. Why is addressing environmental sustainability a significant challenge for airlines, and how can it be tackled effectively?
- A. Due to the high cost of aircraft maintenance.
 - B. It's primarily related to airport congestion.
 - C. Exploring alternative fuel sources and fleet renewal.
 - D. Through improved baggage handling processes.

SUB-TOTAL: 40 MARKS

QUESTION 2: SHORT ANSWER QUESTIONS

Indicate whether the following statements are True OR False.

10 MARKS

- A. Coordinating port operations significantly impacts a seaport's functionality and stakeholder engagement.
- B. Trae-In is an option is used to trade vehicles between companies if they want a certain type of vehicle in the other organisation.
- C. Fleet management is the process your business uses to manage all fleet and asset information, from acquisition to disposal.
- D. Fleet disposal is not the process of making a judgement on when and how to sell off vehicle assets before they start to show increased maintenance costs.
- E. A fleet management policy is guiding framework.
- F. The purpose of fleet management policy is to ensure that vehicles and appropriate equipment are utilized economically and effectively by maintaining roadworthiness and safe operation, hence ensuring optimal use and availability and optimising user satisfaction and service delivery.
- G. For buying a car, up-front costs include down payment or cash price to purchase the car along with registration, taxes, etc., and monthly payments include loan payments along with interest.
- H. It is the operator who determines the operational ethos (code) of the company.
- I. Regulations do not lay down the procedures to ensure that vehicles are maintained adequately throughout their working life.
- J. A public service vehicle is not a vehicle adapted to carry more than eight people for hire and reward.

SUB-TOTAL: 50 MARKS

SECTION B: STRUCTURED QUESTIONS

50 MARKS

QUESTION 3

December is a festive month full of celebrations for different events everywhere in the country. In most cases, the roads are congested and too busy. Statistics also show high road accidents and incident records throughout the whole of Namibia.

What road traffic management measures would you suggest to the road authority or control network stakeholders to implement during the festive seasons? Be specific in your response. The measures must apply to this case study question.

Sub-total: 25 Marks

QUESTION 4

You are a maritime consultant, and a port authority has approached you to improve its port operations. Discuss any five (5) key competitive advantages a port should leverage for success, considering factors such as geographical location, legal framework, and technological innovation.

Sub-total: 25 Marks

Grand Total: 100 Marks

END OF EXAMINATION PAPER