higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

TRANSPORT OPERATIONS
NQF LEVEL 4

(11020334)

15 November 2022 (X-paper)
09:00–12:00

This question paper consists of 9 pages.

359Q1N2215

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TIME: 3 HOURS
MARKS: 150

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Start each section on a new page.
5. Use only a black or blue pen.
6. Write neatly and legibly.

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SECTION A

QUESTION 1

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Attention to social factors at work, groups and behaviour of people:

A Systems
B Management theory
C Human relations
D Classical

1.2 Where a business is heading over the long term:

A Direction
B Market
C Advantage
D Environment

1.3 Makes decisions regarding labels or packaging:

A Purchasing
B Finance
C Production
D Marketing

1.4 The diameter of the smallest circular turn that a vehicle can make:

A Wheelbase
B Tare
C Turning radius
D Prime mover

1.5 Is issued for a period of one week to twelve months and is valid for a prescribed area:

A Trip permit
B Area permit
C Route permit
D Countrywide permit

1.6 Refers to an assessment of a specific section of the lift and transport operation.

A A job risk assessment
B A lift plan
C A risk assessment matrix
D Mutagenicity

1.7 Extreme risk hazardous wastes are grouped into …

A Hazard rating 1
B Hazard rating 2
C Hazard rating 3
D Hazard rating 4

1.8 The following is not an internal emergency resource for a dangerous goods emergency plan

A Fire-fighting equipment
B First aid equipment
C Area permit
D Specialist equipment

1.9 The International Civil Aviation Organisation is found under … transport.

A sea
B air
C land: road
D land: rail

1.10 The Ebola virus is a/an …

A radio-active material.
B toxic substance.
C organic peroxide.
D infectious substance.

(10 × 1) **[10]**

QUESTION 2

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1–2.10) in the ANSWER BOOK.

2.1 Operations management is relevant to all parts of a transport business.

2.2 The Cape Town Integrated Rapid Transit System is known as MyCiti.

2.3 Overheads include all those costs that can be attributed directly to any vehicle in a transport business.

2.4 Downstream costs include things such as advertising, distribution, and sales commission.

2.5 Assessing a route and getting route clearance for an abnormal load is the job of the customer.

2.6 Safety and security need to be considered during receipt and acceptance of abnormal loads at the site.

2.7 When a single escort is used, it must travel between 12m to 35m behind the abnormal vehicle.

2.8 A dangerous goods declaration must be signed by the operator and the consignee of the vehicle.

2.9 A radioactive permit must be carried on a vehicle conveying Class 1 substances.

2.10 Dangerous goods should be compatible if a multi-load of dangerous goods is transported on a vehicle.

(10 × 1) **[10]**

QUESTION 3

Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–E) next to the question number (3.1–3.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1	All the activities necessary for the fulfilment of a customer's request	A	cash and carry
3.2	This business has become increasingly important in wholesaling	B	oxidisers
3.3	Diamond-shaped and divided into halves	C	operations
3.4	Load legally permissible to extend 300 mm beyond the front end of the vehicle	D	hazard labels
3.5	Not necessarily flammable in themselves	E	load projection

(5 × 1) **[5]**

QUESTION 4

Complete the following sentences by writing the missing word or words next to the question number (4.1–4.5) in the ANSWER BOOK.

4.1 … is the typical movement of people or products from where they are to where they need to be.

4.2 A/an … serves as a vital hub in the flow of goods within a supply chain system.

4.3 A/an … is a person or organisation that facilitates the distribution of goods to the ultimate customer.

4.4 … are used to contain extremely low-temperature liquids.

4.5 … are materials or items with hazardous properties.

(5 × 1) **[5]**

TOTAL SECTION A: 30

SECTION B

QUESTION 5

5.1 Discuss FOUR steps that governments or local authorities take during the process of planning and managing transport services. (4 × 2) (8)

5.2 Differentiate between *Policies* and *Processes* (5)

5.3 Give THREE responsibilities of a distribution manager. (3 × 2) (6)

5.4 Read the following scenario and answer the questions that follow:

The Covid pandemic had a huge impact on the lives of the Naidoo family. Mr Naidoo and his brother lost their jobs. Mr Naidoo's two sons, who finished school, were also unemployed. He could not afford to send them to study further. Mr Naidoo decided to venture into entrepreneurship and employ his two sons and brother in his business. He owns a bakkie and an old mini-bus, both in good working condition. He sees a need for a transport and delivery service in his area.

Because Mr Naidoo does not have any experience in the transport business environment, he comes to you for advice.

5.4.1 Identify the type of business ownership that Mr Naidoo is venturing into. (1)

5.4.2 Give FOUR advantages of the type of ownership chosen. (4 × 2) (8)

5.4.3 Draw the organogram for Mr Naidoo's business. (9)

[37]

QUESTION 6

6.1 Discuss the impact of an effective and well-integrated transportation system on other industries under the following headings:

6.1.1 Accessibility to markets

6.1.2 Infrastructure

6.1.3 Labour force availability

(3 × 3) (9)

6.2 Give THREE areas outside of the business that indirectly affects transport costs. (3)

6.3 Explain the difference between *Direct costs* and *Indirect cost*s in a transport business, using examples. (5)

6.4 Define what is meant by a *decentralised distribution centre*. (2)

[19]

QUESTION 7

7.1 Study the picture below and then answer the questions that follow:



[Source: Abnormal Load Transport in Johannesburg, Durban & Richards Bay – *www.lovemore.co.za*]

7.1.1 What is the type of load that is being transported in the picture above. (1)

7.1.2 Identify THREE abnormal load vehicles in the picture above. (3)

7.1.3. Describe FOUR abnormal load markings that operators can use for the above load. (4 × 2) (8)

7.2 Name any TWO legislative frameworks relating to abnormal load operators in transport operations. (2 × 2) (4)

7.3 Discuss how each of the following four factors of a vehicle's abnormal load determine its escort requirements:
width and length; height; overhang; load projection (4 × 2) (8)

7.4 Explain FOUR risks that can occur when loaded vehicles are moved, especially in confined spaces. (4 × 2) (8)
[32]

QUESTION 8

8.1 Discuss THREE governing principles that are essential for the management of hazardous waste. (3 × 2) (6)

8.2 Discuss TWO ways to mitigate risks when transporting each of the following:
Explosives; corrosive materials; compressed gases; radioactive materials
(4 × 2) (8)

8.3 In accordance with SANS 10231, all accidents involving dangerous goods vehicles must be reported to the NDOT within 30 days. (SABS, 2010)

8.3.1 List TWO items that must be included in the report of the operator involved in a dangerous goods carriage accident on road. (2)

8.3.2 List TWO departments that must be notified by the operator if his/her vehicle is involved in an incident. (2)

8.4 Describe any THREE aspects that need to be included in a dangerous goods emergency plan. (3 × 2) (6)

8.5 Although the rules for the conveyance of dangerous goods and the operations involved remain fairly consistent whatever the mode of transport, there are important operational similarities and differences amongst the modes.

Briefly explain FOUR differences in operations for the conveyance of dangerous goods via different transport modes. (4 × 2) (8)
[32]

TOTAL SECTION B: 120
GRAND TOTAL: 150

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