



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION
DEPARTMENT OF MARKETING, LOGISTICS AND SPORTS MANAGEMENT

QUALIFICATIONS: BACHELOR OF TRANSPORT MANAGEMENT	
QUALIFICATION CODE: 07BTRA	LEVEL: 6
COURSE CODE: MTS621S	COURSE NAME: MARITIME AND AVIATION SAFETY AND INFRASTRUCTURE CONSIDERATIONS
SESSION: NOVEMBER 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100
FIRST OPPORTUNITY EXAMINATION PAPER	
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MODERATOR:	PROF SMART DUMBA
INSTRUCTIONS	
1. ANSWER ANY FOUR (4) QUESTIONS: EITHER 1, 2, 3, 4, 5 OR 6!!!	
2. WRITE NEATLY AND LEGIBLY IN INK	
3. CLOSED BOOK EXAMINATION	

THIS QUESTION PAPER CONSISTS OF 8 PAGES (Including this front page)

QUESTION 1:**(25 Marks)**

- 1.1** Analyse any three (3) Health, Safety, Environment and Quality best practices and briefly, elaborate on their respective functions? **(10 marks)**
- 1.2** Name any five (5) significant benefits of incident reporting? **(10 marks)**
- 1.3** Evaluate any five (5) Primary Causes of Maritime Accidents? **(5 marks)**

QUESTION 2:**(25 Marks)**

- 2.1 Multiple Choice Questions: Indicate the correct answer by writing for example: 1. A or 2. B:** **(20 marks)**

2.1 In many African countries, more than elsewhere in the world, infrastructure inefficiencies coupled with limited competition are making market access both difficult and:

- (a) Undesirable
- (b) Inexpensive
- (c) Expensive

2.2 Under Article 18 of Montreal Protocol No. 4 the carrier could only exonerate itself from liability if it could prove that the damage had been caused solely by one of the two specific causes described in the Convention, **Except:**

- (a) Loose consignment
- (b) Defective packing
- (c) Inherent defect

2.3 Despite the growing effects of accidents, there has been less significant proactive approach to mechanisms of averting, responding, coping and:

- (a) Discovery
- (b) Competing
- (c) Recovery

2.4 Airports pricing mechanisms usually do not incorporate competitive factors for example, landing charges, airport passenger charges, and:

- (a) Security charges
- (b) Terminal charges
- (c) Fuel surcharge

2.5 Transport accidents in view of technological hazards are disaster type term used to describe technological transport accidents involving:

- (a) Land based infrastructure
- (b) Mechanized modes of transport
- (c) System components

2.6 ship, which is not subject to the provisions of the present convention at the time of its departure on any voyage, shall not become subject to the provisions of the present convention on account of any deviation from its intended voyage due to stress of weather of any other case of:

- (a) Peril of the Sea
- (b) Act of God
- (c) Force majeure

2.7 Maritime “infrastructure” is generally thought of as cranes, wharves, dredged channels, locks, dams and other:

- (a) Relevant structures
- (b) Tangible structures
- (c) Components structures

2.8 In order to provide a seamless and reliable service in the most efficient manner, the Maritime Transportation System must deliver safe, secure, efficient and reliable transport of goods across the:

- (a) Sea
- (b) Land and sea
- (c) World

2.9 There is no generalized classification of accidents, but according to Wikipedia, a good accident classification system is that which is easy to apply, covers as many aspects as possible, and:

- (a) Easily to identify
- (b) Ideally intuitive to use
- (c) Ideally manageable

2.10 No ship to which the present Convention applies shall proceed to sea on an international voyage after the date on which the present Convention comes into force unless it has been:

- (a) Repaired
- (b) Surveyed
- (c) Properly maintained

2.11 Ocean freight accounts for about 90 percent of global shipping, which makes it the:

- (a) Main mode of transportation
- (b) Single mode
- (c) Secondary mode

2.12 Both the protection of marine biodiversity and principles of ocean governance should be continuously reflected in discussions at:

- (a) International Civil Aviation Organisation
- (b) International Air Transport Association
- (c) International Maritime Organization

2.13 Accumulation of ice on the aircraft surfaces can adversely affects aircraft control or:

- (a) Flying capacity
- (b) Performance

(c) Take off-weight

2.14 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 sets minimum qualification standards for masters, officers and watch personnel on seagoing merchant ships and:

(a) Navy vessel

(b) Small recreational vessel

(c) Large yachts

2.15 Freight rates always depend on demand of the volume of cargo that is ordered and:

(a) Stored

(b) Shipped

(c) Packed

2.16 A Sustainable Maritime Transportation System also needs the support of a sound financial system to support its evolving requirements for economic, social and:

(a) Environmental sustainability

(b) Health

(c) Equity

2.17 Operational accident, is the kind of accident taking place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, excluding sabotage, military actions, terrorism:

(a) Geopolitics

(b) Economical deficiencies of the flight

(c) Suicide and the like

2.18 International voyage means a sea voyage from a country to which the present convention applies to a port outside such country, or:

(a) Conversely

(b) Inland river

(c) Hinterland delivery points

2.19 When shipping dangerous goods which require special storage, shipping, and handling, you will be charged higher rates due to the need for special containers, and:

(a) Urgent transfer of cargo

(b) Transportation by air

(c) Skilled manpower

2.20 Ports are gateways for development, fostering economic growth and allowing countries to participate in:

(a) Trade

(b) Transport

(c) Promotion

2.2 Define Aviation Accident under the Convention of International Civil Aviation?

(5 marks)

QUESTION 3:**(25 Marks)**

- 3.1** Discuss any three (3) objectives of International Civil Aviation Organization? **(10 marks)**
- 3.2** What are the main five (5) causes of constraints in the air transportation infrastructure? **(10 marks)**
- 3.3** Critically, evaluate any five (5) Classes of Dangerous Goods? **(5 marks)**

Question 4:**(25 Marks)**

The following Statements are true or false. Write true (T) if the answer is correct or false (F) if the answer is incorrect:

- 4.1** Freight rates are closely related to fuel costs. When fuel prices increase, vessel owners either take some losses or hike prices as ships become more expensive to operate.
- 4.2** An aviation accident / air accident is defined by the Convention on International Civil Aviation Annex 13 as an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention to remain onboard such flight.
- 4.3** Carriage of dangerous goods by sea is regulated in order reasonably to prevent injury to persons or damage to ships and their cargoes.
- 4.4** Maritime transport has a significant climate mitigation potential as it is the greatest contributor of global greenhouse gases.
- 4.5** Larger ships in general are easy to steer, and less costly to rescue in cases of collisions and groundings.
- 4.6** Development of Automatic Dependent Surveillance Broadcast and its mandatory installation on all airlines will be a tremendous transformation towards prevention of air accidents.
- 4.7** The International Convention for the Prevention of Pollution from Ships of 1973 is an important convention which safeguards the marine environment against ship pollution.
- 4.8** But shipping is considered a harder-to-abate sector because ocean-going ships navigate over short distances and have many options to electrify its merchant fleets.
- 4.9** The Montreal Convention of 1999 was realized with the intention to replace the well-known 'Warsaw regime' that governed international air carriage since 1929.
- 2.10** The Ever-Given incident of 2021 delayed the passage of hundreds of vessels through the Panama Canal, disrupted global trade, and exacerbated the shortage of shipping containers, leading to congestion in many ports and an increase in container freight rates.
- 4.11** Hydrogen-based fuels, such as green ammonia and methanol, are the main candidates to decarbonize the industry.
- 4.12** The implementation of the Warsaw Convention of 1929 presented a paradox, since its ratification was not worldwide.

4.13 The Montreal Convention of 1999 introduces the least fundamental changes to the basis of the liability regime compared to the Warsaw Convention of 1929 and the Hague Protocol of 1955.

4.14 Tanker ships are specialized vessels for carrying a large amount of liquid cargo.

4.15 Container ships are vessels which are structured to specifically transport wheel cargo in huge quantities.

4.16 Salvage vessels are vessels which are engaging in the salvage operation, recovery of lost property at sea.

4.17 Barge carriers is a flat-bottomed boat, built mainly for the transportation of deep seas heavy consignments and live animals, respectively.

4.18 Operational efficiency is often considered a straightforward way to improve existing infrastructure and optimize vessel operation with positive cost and climate impacts.

4.19 Dry bulk carriers are a type of ship which transports cargoes for example, liquid cargo in bulk quantities.

4.20 Ports play a critical role in reducing shipping costs and building supply chain resilience, which are critical for safeguarding food security.

4.21 An intelligent transportation system (ITS) is an advanced application that aims to provide innovative services relating to different modes of transport and traffic management and enable users to be better informed and make safer, more coordinated, and 'smarter' use of transport networks.

4.22 The long-range transport of air pollution emitted in one country can rarely affect people and the environment of another country.

4.23 The Montreal Convention of 1999 introduces the least fundamental changes to the basis of the liability regime compared to the Warsaw Convention of 1929 and the Hague Protocol of 1955.

4.24 There are similar air pollution problems in different countries that can be solved by using the same measures.

Tanker ships are specialized vessels for carrying a large amount of liquid cargo.

4.25 Container ships are vessels which are structured to specifically transport wheel cargo in huge quantities.

QUESTION 5:

(25 Marks)

5.1 Briefly, narrate the six (6) implemented annexures for controlling and eliminating marine pollution? **(15 marks)**

5.2 What are the key elements of a Sustainable Maritime? **(10 marks)**

Question 6:

(25 marks)

6.1 Fill-in the missing word: Indicate the correct answer by writing for example: 6.1 A or 6.2

B:

(20 marks)

6.1 The bill of lading is a legally binding document providing the shipper and the carrier all the details needed to process the freight shipment and it correctly:

- (a) Discharge
- (b) Invoice
- (c) Receipt

6.2 Before arrival of a ship, the required space must be allocated taking the prospective time the ship spends in the terminal into account:

- (a) Capacity
- (b) Layout
- (c) Berthing

6.3 Based on the stowage plan, planners in container terminals determine the sequence of unloading and of loading outbound containers:

- (a) Inbound containers
- (b) Terminal Yard
- (c) Transit containers

6.4 The bill of lading is a contract between the and shipper:

- (a) Carrier
- (b) Government
- (c) Community

6.5 Sustainable development is development that meets the needs of the present without the ability of future generations to meet their own needs:

- (a) Wasting
- (b) Compromising
- (c) Disposing

6.6 For maritime transport systems to be seamless, fluid and operational there is need for reliable information flows between stakeholders enabled by manual documentation and increasingly the information flows are being done:

- (a) Smartly
- (b) Smoothly
- (c) Electronically

6.7 Paying attention to the bill's accuracy when using it, is one of the most important things you can do to run your department effectively:

- (a) Warehouses
- (b) Depots'
- (c) Logistics

6.8 Under the flags of convenience (FOC) countries allows any individual ship operator or companies to register their respective ship under their:

- (a) Maritime jurisdiction
- (b) Flag
- (c) Exclusive economic zone

6.9 The issuance of the bill of lading is proof that the carrier has received to goods from the shipper or their third-party logistic service provider in order and condition, as handed over by the shipper:

- (a) Good condition
- (b) Apparent good
- (c) Excellent condition

6.10 The bill of lading is sufficient evidence of a legal contract and can be used in.....:

- (a) Litigation
- (b) Carriage
- (c) Arguments

6.2 What is information technology in transportation and how does technology help in transportation? **(5 marks)**