

Candidate's Name:

***Ports and Maritime Organization
Examination and Certification Directorate***
Exam Code: CMSB

**Subject: Cargo handling & Stowage
Rank: Chief Mate (GT>3000)**

**Date:
Time allowed: 2.5 Hrs**

Pass mark: 55

Q.1) Write short notes on the followings:

- a)** Loading /Unloading sequence in bulk carriers. **(9 marks)**
- b)** What is an angle of repose and document of authorization with respect to bulk cargoes? **(7 marks)**
- c)** Define the term Transportable Moisture Limit. **(4 marks)**

Q.2) a) Describe the procedure and requirements for Crude Oil Washing of a cargo tank in an oil tanker and explain how risk of fire, explosion and pollution eliminated.

(12 marks)

b) Draw flammability diagram and define terms too-lean and too-rich.

(10 marks)

Q.3) With reference to MARPOL 73/78 Describe the shipboard oil pollution emergency plan and its requirements. **(16 marks)**

Q.4) Describe your action as chief officer of a general cargo vessel when you find out that some parcels of cargo have shifted in heavy weather. **(20 Marks)**

Q.5) With regards to loading rice in bags from Asia to Europe during may / June write briefly what points you would consider in respect of:

- a)** Hold preparation **(7 marks)**
- b)** Stowage **(7 marks)**
- c)** Ventilation **(8 marks)**

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Q.1) Define the following terms

- i-** Transportable moisture limit
- ii-** Flash point
- iii-** Purging (in oil tanker)
- iv-** Safe working load

(5 marks each)

Q.2) **a) -** What are the general principles and points that should be considered when planning for loading containers on a container vessel. **(10marks)**

b)- In addition to precautions for ordinary containers, what measures and precaution you take while carrying reefer containers- **(6marks)**

c)- Discuss why there is a maximum recommended GM in cargo securing manual on container vessels **(6 marks)**

Q.3) In connection with the dangerous cargoes write briefly:

i- What information must be given to the V/L prior loading **(4 marks)**

ii- The general precaution necessary while loading; **(10 marks)**

iii- What publication you may refer to. **(4 marks)**

Q.4) **a)** Explain the stability requirements for carriage of grain. **(6 marks)**

b) What is the stowage factor? How does it affect the arrangements in the carriage of cargo **(8 marks)**

c) What possible action to be taken on a bulk carrier vessel, if during the voyage you notice some small amount of grain cargo (e.g. 5 tonnes) has been damaged due to ingress of water through the hatch cover. **(6 marks)**

Q.5) Describe the safety precautions for loading on a crude oil tanker after dry-dock. **(20 marks)**