

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET**

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| **SUBJECT** | Maritime Economics | **GRADE** | 12 | **DATE** | 20/4/20 |
| **TOPIC** | International Trade | **TERM 1**  **REVISION** | X | **TERM 2 CONTENT** | X |
| **TIME ALLOCATION** | 40min | **TIPS TO KEEP HEALTHY**  1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.  2. **PRACTICE SOCIAL DISTANCING** – keep a distance of 1m away from other people.  3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.  4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.  5. **STAY AT HOME.** | | | |
| **INSTRUCTIONS** | 1. This worksheet is to be completed in your MRTE exercise/activity book.  2. Answer all the questions.    3. Read the questions carefully before answering.    4. It is in your own interest to write legibly and to present your work neatly.    5. When doing calculations, all working detail must be shown. |

**QUESTION 1**

**1.1 Read the article below and answer the questions set.**

NOTE: Vale is a large Brazilian mining company that has also invested in building the largest bulk carriers of around 400 000 deadweight.

Mozambique to start work on Nacala coal terminal

Mozambique expects construction of a coal terminal to start in the next few months at the northern port of Nacala, with the aim of having it operational in two to three years, Prime Minister Aires Aly said in Tokyo on Thursday. "We need to have it up and running in the next two to three years," Aly told Reuters through a translator on the sidelines of a news conference, adding that he expects Nacala to have a total capacity of 25 million tons of coal.

Brazil's Vale has said it plans to spend $4.4 billion to build the terminal and a 912 km railway line connecting its coal mine with the port. The railway line and port will initially have a capacity of 18 million tons to meet Vale's rising demand for exports. Separately, Japan is conducting a feasibility study, financed by its overseas aid department, on improving the capacity and operation of the port, including terminals for coal. Aly and his Japanese counterpart, Yoshihiko Noda, agreed earlier this week to start negotiations on an investment agreement.

But a Japanese foreign ministry official said on Thursday it is still unclear if and when Tokyo will help fund the Nacala port development. The weeklong visit by the leader of energy-rich Mozambique, which ends on Friday, comes at a time when Japan is struggling to meet its electricity needs, with most of its nuclear reactors (used to generate electricity) shut down due to safety fears sparked by the Fukushima radiation crisis. Japan, along with other countries, is also under pressure from the United States to cut oil imports from Iran.

Several Japanese companies, including Nippon Steel Corp and Mitsui & Co, have already tapped the resources of Mozambique.

Aly said test results so far have shown the country's offshore natural gas fields are promising, and he hoped liquefied natural gas (LNG) exports to Japan from a LNG facility in a project led by Anadarko Petroleum Corporation would start by 2018. [Source: <lol.co.za/Reuters>]

1.1.1 Which TWO energy resources could Japan import from Mozambique? (4)

1.1.2 According to the article, why is Japan very keen to find new energy resources? (Give TWO reasons) (4)

1.1.3 Assume Japan does begin to import large volumes of the two energy resources from Mozambique.

(a) How will this benefit shipping? (6)

(b) Which types of ship will be used for this trade? (4)

1.1.4 A shipowner who may want to move one of the commodities from Nacala to Japan takes the following into consideration when calculating the costs of operating his ships for a round voyage. (NB: A round voyage is from the start of loading at Nacala until the ship arrives back at Nacala. He regards time at anchor as a day at sea.)

Operating costs $30 000 per day

Fuel consumption HFO (at sea only) 55 tons per day

MDO (at sea and in port) 3 tons per day

Budgeted fuel costs HFO $650 per ton

MDO $950 per ton

Port costs Nacala $5 000 per day

Japan $8 000 per day

Time loading 3 days

Time at sea 26 days each way

Time discharging 5 days

Allowance for time at anchor during one round

voyage 5 days

Sundry costs $220 000 per round voyage

(a) What are the operational costs for a round voyage? (6)

(b) What are the fuel costs for a round voyage? (6)

(c) What are the port costs for a round voyage? (6)

(d) What is the total cost of a round voyage? (6)

(e) If his ship will carry 160 000 tons of cargo per voyage, what is the basic freight rate per ton of cargo, based on the cost of a round voyage? (6)