ADDENDUM 1 – QUESTION 2.1

NOTE:

- *The North-West Passage is a shipping route between the east and west coast of North America via the Arctic, i.e. via the sea route to the north of Canada.*
- *The North-East Passage is a shipping route between the north-west and north-east coasts of Russia via the Arctic. This route means that ships can pass from ports in the north-west of Russia (or from Norway and other places in Western Europe) to the east coast of Russia, to China and to other Asian ports. It is a shorter distance for ships than going from north-west Russia to Asia via the Suez Canal.*
- *These two routes are only passable during the northern hemisphere's summer. In the northern hemisphere's winter, the sea freezes and the thick ice prevents ships from moving through these routes.*

Polar routes are increasingly important in global shipping … Both the north-west and north-east passages are witnessing major growth in shipping during the northern hemisphere's summer months. This has prompted the Russians to build an additional nuclear icebreaker to augment the icebreaking capacity for the north-east passage, and no doubt, the Canadians are also increasing their icebreaking fleet to meet the demand for passages along that country's Arctic coastline.

The discovery of an enormous gasfield on the Yamal Peninsula in the Russian Arctic brought special measures to export the gas (Liquefied Natural Gas – LNG), mainly to China which has invested heavily in the project. Before the benefits of the estimated annual production of about 16,5 million metric tons of LNG from this gasfield could be exploited, a new port, Sabetta, and infrastructure had to be built – ranging from the LNG terminal itself to a new international airport. Everything built there had to be moved in by sea, generating a veritable stream of ice-strengthened heavylift ships carrying enormous modules for the LNG facilities at Sabetta. Construction work is nearly finished, is on time, and within budget, despite the vagaries of the Arctic weather and western sanctions against Russia, which many thought would delay or even stop the project!

Although the Russians will not be averse to selling the LNG to any buyer, China will be the main importer of gas from this field, and a fleet of specially-equipped ice-strengthened LNG carriers is currently under construction in Korea.

The idea is to move the LNG from the gasfield to China via the north-east passage during the northern hemisphere's summer. In winter when the ice becomes too thick even for these vessels to get through, the gas will go to Zeebrugge in Belgium where it will be trans-shipped into conventional gassers for onward shipment to China via Suez.

The first custom-built gasser for the trade is presently in the Arctic undergoing ice trials, while a further four are in various stages of completion in Korea. A fleet of eleven specialised LNG carriers will participate in the service to move gas from the Yamal gasfield. Each will have the conventional ice-breaker bow to allow the ship to break through thinner ice, but when thicker ice is encountered, the ship is turned and moves astern through the ice. Three azipods that propel the ship also break the ice …

[Adapted from Source: Cape Times, 1 March 2017 <www.pressreader.com/south-africa/cape-times/20170301>]

ADDENDUM 2 – QUESTION 2.2

SHIPPING STATISTICS – PORT NEWREFIN

SHIPS CALLING

YEAR >>>	2012	2013	2014	2015	2016	2017	2018	2019
SHIP TYPE								
Containerships	2 100	2 006	2 114	2 101	2 156	2 764	3 118	3 109
Bulk Carriers	204	232	241	221	248	1 109	2 115	2 332
Tankers (VLCC)	357	323	359	341	669	687	690	700
Product Tankers	495	512	521	501	892	941	950	950