



NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2008

MARITIME ECONOMICS

MARKING GUIDELINES

Time: 3 hours

Marks: 300

These marking guidelines are prepared for use by examiners and sub-examiners, all of whom are required to attend a standardisation meeting to ensure that the guidelines are consistently interpreted and applied in the marking of candidates' scripts.

The IEB will not enter into any discussions or correspondence about any marking guidelines. It is acknowledged that there may be different views about some matters of emphasis or detail in the guidelines. It is also recognised that, without the benefit of attendance at a standardisation meeting, there may be different interpretations of the application of the marking guidelines.

QUESTION 1 LEARNING OUTCOME 1: THE MARITIME WORLD

- 1.1 Wind/ currents (2 x 1 = 2)
- 1.2 Increased speed/ schedules more reliable/ less dangerous/ any other plausible answer. (2 x 1 = 2)
- 1.3 1.3.1 Because photographs are published in newspapers. (2)
- 1.3.2 Report on container losses by MAIB. (2)
- 1.3.3 Beaching of MSC Napoli. (2)
- 1.3.4 Faulty twist locks/ overweight containers/ badly packed containers/ bad weather. (2 x 2 = 4)
- 1.4 Fuel has less volume = saving of space = more cargo space.
Cleaner in terms of emissions and no dust.
More efficient/ any other plausible answer. (3 x 2 = 6)
- 1.5 1.5.1 Bulker that cannot pass through Suez Canal fully laden. (2)
- 1.5.2 December (2)
- 1.5.3 Accept answer between \$92 and \$94. (2)
- 1.5.4 Downwards (2)
- 1.5.5 Yes (5 x 2 = 10)
- 1.6 1.6.1 1381 (4)
- 1.6.2 Port A (2)
- 1.6.3 Port B (2)
- 1.6.4 (a) Ro-Ro (or vehicle carrier) (2)
- (b) Bulk carrier (2)
- 1.6.5 Fuel (or diesel) (2)
- 1.6.6 (a) Increase in tankers calling. (2)
- (b) Decline in containerships that would carry exported fish/ decline in 'other' ships which would include fishing vessels. (2 x 2 = 4)
- (c) More bulkers calling. (2)
- 1.6.7 2006 (2)
- 1.6.8 Increase in bulkers in that year. (2)
- 1.7 Foreign seafarers are paid less/ not enough available in own country. (2 x 2 = 4)

60 marks

QUESTION 2 LEARNING OUTCOME 2: SHIPPING OPERATIONS

2.1 2.1.1

(10)

2.1.2 Geared handy size (2 x 2 = 4)

2.1.3 (a) Total cargo to be loaded = 33 500 tons
 Loading rate = 2 chutes $\times$ 1 000t/h = 2 000t/h
 Hours to load cargo = $\frac{33\,500}{1\,000}$ = 33.5 hours
 = 33.5 + 3H = 36.5 hours
 = **37 hours** (6)

$$(b) \quad 37 + 1 + 3 + 2 = 43 \text{ hours} \quad (6)$$

(c) 10:00 on 11 November + 43 hours = **05:00 on 13/11** (6)

(d) Yes (2)

(e) Demurrage (2)

(f) Charterer (2)

(g) 05:00 on 13/11 + 3 hrs = **08:00 ON 13/11** (6)

2.1.4 (a) Shipper (2)

(b) Consignee (2)

(c) Shipper (2)

2.2	2.2.1	SAMSA/ port authority/ classification society/ flag state	(3 x 2 = 6)
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2.2.2 Flag state/ classification society (2 x 2 = 4)

2.2.3 Hull and machinery insurers (2)

2.2.4 P&I Insurers (or cargo insurers) (2)

2.2.5 Only the grain below the waterline would have been flooded. (4)

2.2.6 3 500 tons (4)

2.2.7 (a) Costs of salvage or other losses shared by all involved on a proportional basis according to value of the involvement of each (or similar). (6)

(b) Ship-owner (2)

(c) Value of ship	=	\$56 000 000	
Value of cargo	=	\$16 000 000	
Value of bunkers	=	<u>\$ 320 000</u>	
Total	=	<u>\$72 320 000</u>	
Portion by cargo owners	=	$\frac{\$16\,000\,000}{\$56\,000\,000} \times \frac{\$3\,200\,00}{1}$	
	=	\$914 285.44	(6)

2.2.8 Salvage operation undertaken on a no-cure-no-pay basis. (4)

2.2.9 Yes (2)

2.2.10 Refloated vessel in imminent danger (2)

2.2.11 Cyprus (2)

2.2.12 Use discretion and award marks for time given and action reported.

3 December

12:35 Ship was still drifting.

14:00 I ordered both anchors to be dropped to try to check the drift.

15:00 Both anchor chains parted and ship began to drift. Wind was gale force, onshore and heavy swell running.

16:00 Ship grounded on beach, two miles west of Cape Agulhas.

Two helicopters from the South African Air Force prepared to evacuate the crew. Ordered all junior ratings and catering crew to be evacuated. I also ballasted the ship down to minimise the vessel bumping on the beach.

19:30 Salvage tug Seefalk arrived. Swell was sweeping over the ship. Yet we managed to make towing line fast up forward.

In discussions with her master and the SAMSA surveyor, I agreed that the first refloating attempt should be on the high tide early the following morning.

23:30 We began to de-ballast the ship in preparation for refloating on the high tide at 02:20. Because of the swell, we were unable to go on deck to do soundings of the holds to detect any leaks.

4 December

02:00 The tug began to pull.

02:30 *Sunrise Trader* was refloated.

During the voyage under tow to Cape Town, the swell was enormous with some swells exceeding 15 metres.

5 December

06:30 *Sunrise Trader* under tow arrived off Cape Town. Divers managed to do an inspection and found the propeller and rudder had been damaged. Two small gashes on the starboard side were found and water had entered number 3 hold. The keel had been dented.

15:30 The pilot came on board.

16:20 *Sunrise Trader* berthed in Cape Town harbour. (16)

2.2.13 Damaged cargo destroyed; undamaged cargo railed to Zambia. (2)

- 2.2.14 (a) New Orleans (2)
- (b) Wheat (2)
- (c) Two (2)

120 marks

QUESTION 3 LEARNING OUTCOME 3: INTERNATIONAL TRADE

- 3.1 3.1.1 1956 – 1957/ 1967 – 1975 (2 x 2 = 4)
- 3.1.2 Oil/ containers/ grain/ steel/ coal/ any other plausible **major** cargo. (4 x 2 = 8)
- 3.1.3 Shorter route (2)
- 3.1.4 Red Sea/ Mediterranean Sea (2 x 2 = 4)
- 3.2
- 3.2.1 New York or Charleston or Boston or any correct other. (2)
- 3.2.2 Seattle or Vancouver or San Francisco or Los Angeles or Long Beach (2)
- 3.2.3 Pacific Ocean > Cape Horn (or straits of Magellan) >
South Atlantic Ocean > North Atlantic Ocean (4)
- 3.2.4 (a) ELBE/ ELBE 1 (2 x 2 = 4)
- (b) Beam/ length/ draught all fit in terms of Panama limitations. (3 x 2 = 6)
- (c) PANAMAX (2)
- 3.2.5 Use discretion and award marks for clear arguments relating to the increased capacity of Panama suiting global shipping. Cargoes passing through include containers/ oil products/ oil/ grain/ vehicles/ any other plausible cargoes. (10)
- 3.3 3.3.1 Straits of Hormuz: Use discretion and award marks for clear description of the role of Hormuz in global shipping. Cargoes passing through include containers/ oil products/ oil/ grain/ vehicles/ any other plausible cargoes/ import cargoes bound for all Gulf States, especially food as they are unable to produce enough food/ oil. Cargoes destined all over the world/ free passage through straits important for global economy. (12)
- 3.3.2 Arabian Gulf (2)
- 3.4
- 3.4.1 General duties to ensure conformity to ISP's, STCW 95, Marpol, ISM, SOLAS, US ship registration, any other plausible answer. (4 x 2 = 8)
- 3.4.2 SAMSA (2)

- 3.4.3 (a) The appropriate line on the load line would be under water. (2)
- (b) Detain ship/ ensure cargo or ballast is discharged to bring vessel to required line/ fine master. (3 x 2 = 6)
- 3.4.4 (a) IMO (2)
- (b) SAMSA (2)
- (b) SAMSA (2)
- (c) Classification society (2)

90 marks

QUESTION 4 LEARNING OUTCOME 4: MARINE ENVIRONMENTAL CHALLENGES

- 4.1 4.1.1 Single-skinned (2)
- 4.1.2 Crack in side plating = spillage (2)
- 4.1.3 B and C (4)
- 4.1.4 Counter (4)
- 4.1.5 Power generation/ fishing/ tourism (3 x 2 = 6)
- 4.1.6 Phase out single skinned tankers. (2)
- 4.2 4.2.1 Temperature drops/ rain/ wind strengthens from west/ rough sea. (8)
- 4.2.2 Rough sea = hard to clean up slick OR heavy sea can break up slick with positive connotations for the area/ strong wind or rough seas might drive more oil ashore. (4)

30 marks**Total: 300 marks**