NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2020

MARITIME ECONOMICS

MARKING GUIDELINES

Time: 3 hours 300 marks

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.

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QUESTION 1

1.1 D
1.2 C
1.3 B
1.4 D
1.5 A
1.6 B
1.7 B
1.8 B
1.9 C
1.10 C
1.11 D
1.12 B
1.13 D
1.14 B
1.15 C
1.16 A
1.17 B
1.18 D
1.19 D
1.20 C
1.21 D
1.22 A
1.23 D
1.24 B
1.25 B
1.26 C
1.27 D
1.28 C
1.29 B
1.30 B

[30 × 2 = 60]

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QUESTION 2

2.1 Coal has less calorific value than oil/coal takes up more space aboard a ship/coal is less clean, both in its format (much dust associated with it) and in emissions from the ship's funnel.

Any other plausible answer. (3 × 2 = 6)

2.2 Renewable energy/free to use.

Any other plausible answer. (2 × 2 = 4)

2.3 2.3.1 Solar energy/nuclear energy.

Any other plausible answer. (2 × 2 = 4)

2.3.2 Use discretion and credit the candidate for clear, reasonable argument. (6)

2.4 2.4.1 Arabian Gulf–Europe via Suez
($38 677 to $3 063 = $35 614 decline) (6)

2.4.2 Longer distance/Operational costs higher (4)

2.4.3 Large tanker/Carrying over 240 000 tons of cargo/about 260 metres long or longer (2 × 2 = 4)

2.4.4 Straits of Hormuz/Straits of Malacca (2 × 2 = 4)

2.4.5 Straits of Hormuz (2)

[40]

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QUESTION 3

3.1 General arrangement plan of ship. 6 marks for any six correct labels.

2 marks for overall accuracy and neatness of drawing.
2 marks for view from port side. (10)

3.2 Draught/length/cargo capacity (deadweight)/fuel consumption/charter rate (Any 4 × 2 = 8)

3.3 3.3.1 $\frac{7\ 200 \text{ tons}}{100 \text{ tons per hour}}$ **= 72 hours** (6)

3.3.2 72 hours + 12 hours = 84 hours 14:00 on 24 June + 84 hours
= 02:00 on 28 June (6)

3.3.3 02:00 on 28 June + 5 hours **= 07:00 on 28 June** (6)

3.3.4 Yes (2)

3.3.5 Demurrage (2)

3.3.6 Charterer (2)

3.3.7 (a) Weather-sensitive cargo (2)

(b) No (2)

3.4 3.4.1 Shipper (2)

3.4.2 Consignee (2)

3.4.3 Consignee (2)

3.5 Geared/Handymax (2 × 2 = 4)

3.6 Manages the ship in terms of operations/insurance/bunkering/financial control/crewing.

Any other plausible answer. (Any 3 × 2 = 6)

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3.7 3.7.1 Use discretion and award marks for coverage of important aspects that the agent would need to know. (12)

3.7.2

02:00 28/6	Sailed New Orleans
14:00 28/6	Weather report received indicating hurricane developing New course plotted
14:00 30/6	Master alters course again
16:00 01/7	Master decides to head for Tampa Sends email to agent. Alerts Coast Guard
10:00 02/7	Helicopter arrives with surveyors and Coast Guard officers
13:00 02/7	*Sofia K* arrives off Tampa and is instructed to anchor
05:00 03/7	Pilot boards
07:00 03/7	*Sofia K* berths in Tampa
22:00 04/7	Damaged cargo discharge completed
10:00 05/7	Repairs begin
10:00 18/7	Loading of cargo begins
16:00 20/7	*Sofia K* sails for Beira

NB: Award marks for rough completion of timeline. (12)

3.7.3 Hull & Machinery/P&I Club/Cargo Insurers/Classification Society/ Owner (Any 3 × 2 = 6)

3.7.4 SAMSA (2)

3.7.5 H&M or Lloyds (2)

3.7.6 P&I Club or North of England (2)

3.7.7 Yes (2)

[100]

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QUESTION 4

4.1 4.1.1 One (2)

4.1.2 Yes (2)

4.2 4.2.1 No (2)

4.2.2 Flagged and owned in Cyprus (4)

4.3 Cape route links Indian Ocean with South Atlantic/links eastern hemisphere to western hemisphere/West Africa and South America linked to Asia/iron ore/coal/other minerals/West African & Brazilian oil/containers/grain/even more important during World War 2/Suez Closure 1956–1957/Suez Closure 1967–1975 (10)

4.4 4.4.1 Less handling/less damage or wastage/less theft/quicker/reduces shipping costs. (Any 4 × 2 = 8)

4.4.2 24 × 50 kg = **1,2 tons** (6)

4.4.3 $\frac{30\,000 \text{ tons}}{1{,}2 \text{ tons}}$ **= 25 000 pallets** (6)

4.4.4 $\frac{25\,000 \text{ pallets}}{10 \text{ per container}}$ **= 2 500 containers** (6)

4.5 4.5.1 4 + 26 + 11 + 26 **= 67 days** (6)

4.5.2 (67 days × 5 round voyages) + (4 + 26 + 11) **= 376 days**

Therefore she will NOT be able to complete six loaded voyages in a year. (6)

4.5.3 HFO : 31 tons × 26 days **= 806 tons**
Gasoil : 3 tons × 26 days **= 78 tons** (6)

4.5.4 884 tons will reduce her draught slightly (4)

4.6 4.6.1 About 15 October at 07:35 (4)

4.6.2 (a) No (4)

(b) Decrease (2)

(c) Vessel will only be able to enter port later – therefore no need to hurry and by reducing speed, fuel consumption will decrease too. (2)

[80]

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QUESTION 5

5.1 Phytoplankton (2)

5.2 Overfishing (2)

5.3 65 °S (2)

5.4 Tropical Cyclone (2)

5.5 Poaching (2)

5.6 Ban fishing in certain seasons/quotas/declare marine conservation or reserve areas.

Any other plausible answer. (Any 2 × 2 = 4)

5.7 Plastic does not break down quickly/hazardous to sea creatures who may eat it/sea creatures may become entangled in plastic netting/unsightly on beaches.

Any other plausible answer. (Any 3 × 2 = 6)

[20]

Total: 300 marks

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