

APPENDIX

KEY TO EXERCISES

UNIT 1 SHIPPING

(A) EXERCISE 1.

Quantifier	Countable noun	Uncountable noun
several	passenger	—
no	passenger	money
a lot of	passenger	money
few	passenger	—
much	—	money
a large number of	passengers	—
a little	—	money
all	passengers	money
many	passengers	—
a large amount of	—	money
a few	passengers	—
some	passengers	money
most	passengers	money
little	—	money

EXERCISE 2.

A few passengers travel by cargo liner.

A large amount of money is needed to operate a shipping fleet.

Few passengers enjoy being at sea when it is rough.

No passengers are allowed down in the engine room.
All money on board ship should be kept in a safe place.

(B) EXERCISE 1.

NOUN	ADJECTIVE
Width	Wide
Breadth	Droad
Height	High
Depth	Deep
Thickness	Thich

UNIT 2 SHIP TYPES

(A) EXERCISE.

The largest type of cargo ship is the tanker. Tankers are designed to carry liquid cargo such as oil. The cargo is pumped directly into holds by powerful pumps. The holds are constructed as tanks. The tanks are subdivided into a central tank, two wing tanks and an expansion tank. The expansion tank allows the oil to expand in hot weather. The bridge superstructure and the engine room are situated aft to leave more room for cargo. The bridge is connected to the forecastle by the catwalk. Tankers which are over 500000 dwts are known as ultra large crude carriers (ULCCs).

(B) EXERCISE.

- (a) Multi - deck vessels usually carry general cargo; however, some carry containers as well.
- (b) passenger liners have high superstructures because they need a large number of decks.
- (c) Many ferries are designed to carry vehicles, therefore they have doors at the bows or stern.
- (d) Cargo ships are usually designed to carry dry or liquid cargo; however,

- OBO (oil, bulk, ore) ships are designed to carry both.
- (e) Bulk carriers carry large quantities of loose cargo, therefore they have large unobstructed holds.
 - (f) Passenger liners often operate as cruise ships for part of the year because there is not always enough business for them on liner routes.

UNIT 3 SHIP CONSTRUCTION

(B) Time relations EXERCISE 1.

First, the plans are completed by the naval architects.

Then, they are approved by the classification society.

After that, the parts of the ship are prepared. Afterwards, they are put together. Later, the ship is launched.

Then, the ship is fitted out and completed. Eventually, the ship goes for sea trials. Finally, the ship is handed over to her new owners.

EXERCISE 2.

(a) After the parts of the ship are prepared, they are put together.

(b) After the ship is launched, she is fitted out and completed.

(c) Before the ship is handed over to her new owners, she goes for sea trials.

Applied Terminology EXERCISE.

The diagram above shows the layout of a modern tanker.

The hull is divided up into a number of watertight compartments by decks and steel bulkheads. At the fore and after ends of the hull are the fore peak tanks and the after peak tanks. The engine room is situated at the after end of the ship to leave more room for cargo. Between the engine room and the cargo space is a coffer dam. The cargo space is divided up into a number of tanks. Above the main deck is the superstructure. At the fore end is the fore castle. At the after end the bridge superstructure and the poop are combined.

UNIT 4 MANNING

(A) Function EXERCISE 1.

- (a) The chief officer is responsible to the Mastor for the Deck Department.
- (b) The third officer is responsible for the life - saving equipment.
- (c) The sounding of tanks and bilges is the responsibility of the carpenter.
- (d) The Radio officer is responsible for radio communications.
- (e) The chief steward is responsible to the Master for the catering Department.
- (f) The preparation of food is the responsibility of the ship's cook.
- (g) The chief Engineer is responsible for the officient runing of his department.
- (h) The loading and unloading of oil is the responsibility of the pumpman.

EXERCISE 2.

- (a) A thermometer is used for measuring temperature.
A thermometer measures temperature.
We measure temperature with a thermometer.
- (b) A fire extinguisher puts out fires.
We put out fires with a fire extinguisher.
The function of a fire extinguisher is to put out fires.
- (c) We raise and lower the anchors with a windlass.
The function of a windlass is to raise and lower the anchors.
A windlass is used for raising and lowering the anchors.
- (d) The function of a chronometer is to measure time.
A chronometer is used for measuring time.
A chronometer measures time.

Time relaters EXERCISE.

- (a) when (b) while (c) while (d) when
- (e) while (f) when

UNIT 5 SEAMANSHIP

Applied Terminology Exercise.

- (a) pitching (b) rolling (c) heaving
(d) surging (e) swaying (f) yawing

UNIT 6 CARGO WORK

GRAMMAR EXERCISE.

- a) in (b) on (c) off (d) away from
(e) at (f) out of (g) in (h) on

UNIT 7 NAVIGATION

APPLIED TERMINOLOGY

A) EXERCISE 1:

- (a) North (e) South
(b) North - East (f) South - west
(c) East (g) West
(d) South - East (h) North - West

EXERCISE 2.

- (a) S - 180 (b) NE - 045
(c) NW- 315 (d) E - 090
(e) SW- 225 (f) N - 00
(g) W- 270 (h) SE - 135

EXERCISE 3.

- (a) ship E is abaft the starboard beam.
(b) ship F is on the starboard quarter.
(c) ship G is (dead) astern / ship G is astern of the tanker.
(d) ship H is on the port quarter.

- (e) ship I is abaft the port beam.
- (f) ship J is abeam / ship J is on the port beam.
- (g) ship K is before the port beam.
- (h) ship L is on the port bow.

UNIT 8 MAIN ENGINES

GRAMMAR EXERCISE.

- (a) The Second Mate got the cadet to plot the course.
- (b) The First Mate had the cargo checked.
- (c) The Bosun had the boats lowered by the apprentices.
- (d) The Master got the compasses adjusted.
- (e) The Carpenter got the bilges cleaned by the ratings.

Applied Terminology Exercise 1.

Quantity	Unit	Symbol
Area	Square metre	m ²
Volume	Cubic metre	m ³
Velocity	Metre per second	m/s
Angular velocity	Radian per second	r/s
Acceleration	Metre per second second	m/s ²
Density	Kilogramme per cubic metre	kg/m ³
Momentum	Kilogramme metre per second	kgm/s

Exercise 2.

Quantity	Unit	Symbol
Torque	Newton metre	Nm
Stress	Newton per square metre	N/m ²
Pressure	Newton per square metre	N/m ²
Intensity of heat flow rate	Watt per square metre	W/m ²
Thermal conductivity	Watt per metre degree celsius	W/m C
Coefficient of heat transfer	Watt per square metre degree celsius	W/m ² C
Heat capacity	Joule per degree celsius	J/ C
Specific heat capacity	Joule per kilogramme degree celsius	J/kg C

UNIT 9 AUXILIARY MACHINERY

GRAMMAR EXERCISE.

- | | | |
|-----------------------|------------------|----------------|
| (a) converts | (b) get / become | (c) liquiefies |
| (d) is converted into | (e) become | (f) rot |
| (g) turns | (h) become | (i) turns |

Applied terminology exercise 1.

- (a) Volts equal amperes multiplied by ohms.
- (b) Coulombs equal amperes multiplied by seconds.
- (c) Volts equal watts divided by amperes.
- (d) Ohms equal volts divided by amperes.
- (e) Farads equal amperes multiplied by seconds divided by volts.
- (f) Henry equal volts multiplied by seconds divided by amperes.

EXERCISE 2.

1000000J . One megaJoule . 1MJ . 10^6 J
1000N . One kilonewton . 1kN . 10^3 N
0.001V . One millivolt . 1mV . 10^{-3} V
0.000001? . One microhm . 1/? 10^{-6} ?
10000 . One kiloJoule . 1kJ . 10^3 J
0.001A . One milliampere . 1mA . 10^{-3} A
1000000W . One megawatt . 1MW . 10^6 W
1000V . One kilovolt . 1kV . 10^3 V
0.01m . One centimetre . 1cm . 10^{-2} m
0.000001m . One micrometre . 1/ m . 10^{-6} m

UNIT 10 MAINTENANCE

GRAMMAR EXERCISE 1.

- (a) a valve shaped like a needle.

- (b) steel which contains carbon.
- (c) a tank for petrol.
- (d) a rope made of wire.
- (e) bolts at the corners.
- (f) a pump operated by foot.
- (g) plates on / in the floor.
- (h) an engine which runs on diesel.
- (i) a ship for carrying containers.

EXERCISE 2.

- | | |
|------------------------|----------------------|
| (a) compressed air | (f) a sticking valve |
| (b) lubricating oil | (g) heated oil |
| (c) mooring ropes | (h) scavenging air |
| (d) a riveted joint | (i) welded joint |
| (e) a machined surface | (j) cleaning rags |

Applied terminology exercise.

- (a) a ruler which is six inches long.
- (b) a vessel with two propellers.
- (c) a nail which is two inches long.
- (d) a stand with two legs.
- (e) a hemp line made up of three strands.
- (f) an oil designed to mix with different grades of oil.
- (g) a derrick designed to lift up to 15 tons.
- (h) a scavenging air system designed to flow one way.
- (i) coils of rope 120 fathoms long.

ردیف	واژه	معنی
1	Amidship	وسط کشتی
2	Arrival	وارد شدن - رسیدن
3	Bottom	ته کشتی
4	Boatswain	سر ملوان
5	Bosun	سر ملوان
6	Boiler	دیگ بخار
7	Built	ساخت (ساخت کشتی)
8	Bulk cargo	کالای فله‌ای
9	Bridge	پل فرماندهی
10	Bow	سینه کشتی
11	Captain	فرمانده کشتی
12	Cadet	دانشجو
13	Converted	تبدیل شده
14	Coal	زغال
15	Container	جعبه‌هایی که کالا در داخل آن حمل می‌شود
16	Construction	ساختمان
17	Compass	قطب‌نمای مغناطیسی
18	Cargo	کالا
19	Course	زاویه راه
20	Care of cargo	مراقبت از کالا
21	Carpenter	بخار
22	Cook	آشپز
23	Chief engineer	افسر سر مهندس
24	Chief officer	افسر اول
25	Deck officer	افسر عرشه
26	Distance	فاصله
27	Denghy	نوعی قایق

ردیف	واژه	معنی
28	Dry cargo	کالای خشک
29	Draught	آبخور
30	Depth	عمق
31	Deck	عرشه
32	Different	مختلف – گوناگون
33	Example	مثال
34	Engine room	موتورخانه
35	Economically	اقتصادی
36	Firstmate	افسر اول بعد از فرمانده
37	Fore peak tank	مخزن آب شیرین واقع در سینه کشتی
38	Few	تعداد کم
39	Galley	آشپزخانه
40	Harbour	بندر
41	Hatch	دریچه
42	Helms man	سکانی
43	Height	بلندی – ارتفاع
44	International regulation	مقررات بین‌المللی
45	Jetty	اسکله
46	Job	شغل
47	Keel	تیرحمال
48	Liquid cargo	کالای مایع
49	Long	طول
50	Liquids	مایعات
51	Lubricate	روغنکاری
52	Liner	خط منظم کشتیرانی در یک جهت مسافرتی و زمان معین
53	Little	کم
54	Large number	تعداد زیاد

ردیف	واژه	معنی
55	Log	وسیله‌ای برای تعیین سرعت کشتی
56	Maintenance	نگهداری
57	Master	فرمانده کشتی
58	Merchant ship	کشتی تجارتمندی
59	Main engine	ماشین اصلی
60	Main body	بدنه اصلی
61	Navigation	ناوبری
62	Navigator	افسر ناوبر
63	Oil	انواع فرآورده‌های نفتی
64	Port side	سمت چپ
65	Passenger	مسافر
66	Position	مکان - نقطه
67	Pipe	انواع لوله‌های نفتی و غیره
68	Propeller	پروانه کشتی
69	Pivot point	نقطه مرکز
70	Primer	زیرسازی جهت رنگ‌آمیزی
71	Quickly	سریع
72	Responsible	مسئول
73	Radio officer	افسر رادیو
74	Rope	طناب
75	Rust	زنگ خوردگی
76	Radder	صفحه سکان
77	Shipyards	کارخانه کشتی‌سازی
78	Shipowner	مالک کشتی
79	Safety	ایمنی
80	Seaman	ملوان
81	Storekeeper	انباردار

ردیف	واژه	معنی
82	Situation	وضعیت
83	Ship's hull	بدنه کشتی
84	Ship's Crew	پرسنل کشتی
85	Ship's movement	حرکت کشتی
86	Stern	پاشنه کشتی
87	Starbord side	سمت راست کشتی
88	Speed	سرعت
89	Steam	بخار
90	Thickness	ضخامت
91	Tomnage	ظرفیت
92	Tramp	خط نامنظم کشتیرانی در جهت های مختلف و زمانهای مختلف
93	Tide	وضعیت جزر و مد
94	Type	نوع - انواع
95	Terminology	اصطلاحات
96	Tanker	کشتی های نفتکش
97	Unit	واحد
98	Vessel	کشتی
99	Vehicles	وسایل حمل و نقل زمینی
100	Wheelhouse	اطاق سکان
101	Watertight	ضد آب - غیر قابل نفوذ
102	Water line	خط آبخور
103	Wind	باد
104	2nd Engineer	افسر مهندس دوم
105	3rd Engineer	افسر مهندس سوم
106	4th Engineer	افسر مهندس چهارم
107	2nd Officer	افسر دوم (در رشته ناوبری)
108	3rd Officer	افسر سوم (در رشته ناوبری)

منابع

- 1 . ENGLISH LANGUAGE COURSE.
- 2 . A BASIC COURSE IN READING ENGLISH FOR UNIVERSITY STUDENTS.
- 3 . ENGLISH FOR MARITIME STUDIES.
- 4 . SHIP BUILDING AND ENGINEERING WORKS.
- 5 . WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY.
- 6 . SEA TRANSPORT OPERATION AND ECONOMICS. P.M. ALDERTON.

