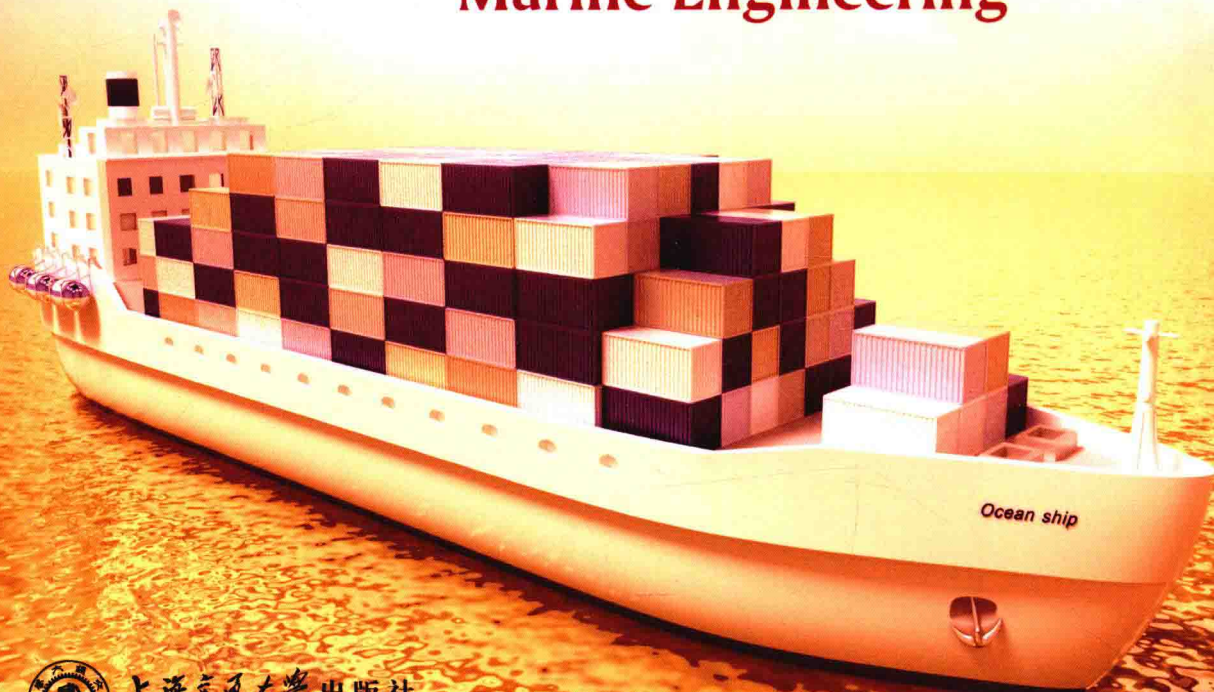


李品友 周俊峰◎编著

轮机英语

学习指南

English of
Marine Engineering



上海交通大学出版社
SHANGHAI JIAO TONG UNIVERSITY PRESS

符合 STCW78/10 公约要求
海船船员适任考试同步辅导教材

轮机英语学习指南

李品友 周俊峰 编著



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内 容 提 要

本书按中华人民共和国海事局海船船员适任证书考试《轮机英语》科目最新考试大纲编写,内容涉及现代船舶轮机管理业务所涵盖的有关船舶主推进装置及其工作系统、各种船舶辅助机械、船舶电气与自动化、轮机管理业务、相关国际公约与规则等。所选习题包含选择题、关联题和翻译题,绝大部分是国内外海船船员适任证书考试的经典试题。

本书可作为海事院校轮机工程(管理)专业应对海事局适任证书统考复习用书,也可作为海船轮机长和轮机员适任证书考试培训用书。

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编写说明

为了满足 2012 年 1 月 1 日生效的《STCW 公约》马尼拉修正案的要求，中华人民共和国海事局重新制定了《中华人民共和国海船船员适任考试和发证规则》（简称《11 规则》），并于 2012 年 3 月 1 日开始实施。同时，中华人民共和国海事局对《海船轮机长、轮机员英语考试大纲》进行了修改和完善，《轮机英语》科目的考试也正在从广度和深度上进行了调整。因此，轮机英语的教学培训更着重于对轮机长、轮机员英语实际运用能力的培养，来进一步提高我国海船轮机长、轮机员的英语素质。

为了更好地帮助学员加强对《轮机英语》科目各知识点的理解，能够更有针对性地学习，以便顺利地通过适任考试，并取得适任证书，我们在 2012 版《轮机英语习题与解答》的基础上，对原有习题按照最新考试大纲重新定位，删除不合适的习题，增加部分新题，并对整书的结构布局作了新的调整，涵盖选择题、关联题和翻译题。本书具有以下几个特点：

（1）同步性。本书按科目考试大纲配置习题，便于教师和学员备考船员适任考试时参考和使用，本书也适用于全日制航海院校学生在学习《轮机英语》时作为课后同步练习使用。

（2）准确性。本书所选习题大多为国内外海船轮机长、轮机员适任证书考试中的经典试题，对知识点把握准确。

（3）科学性。根据船员、学生的认知规律和学习特点，精心安排习题，既有利于船员和学生巩固所学知识，又有利于船员和学生举一反三、融会贯通，力求使每道习题的训练能收到最佳效果。

（4）新颖性。本书力求反映海事局船员考试的最新动态，同时吸收编者长期从事轮机英语教学培训过程中总结出来的经验，所选习题无论是内容还是形式都具有一定的新意。

（5）针对性。本书根据最新《轮机英语》科目考试大纲的知识点，合理安排内容，配合学员知识结构，突出重点与难点，有利于提高学员的学习效率。

本教材受上海市属高校应用型本科试点专业（轮机工程）建设项目资助。参加本书编写工作的有上海海事大学李品友、周俊峰、李国祥、王忠诚、杨智远、周大平等，全书由周俊峰统稿。

因编者水平所限，不妥之处，敬请广大教师、学生和船员谅解并指正。

编者
2018 年 9 月

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第一部分 选择题

第 1 章 船舶主推进装置

1.1 船舶动力装置概述

1.1.1 船舶动力装置的组成

0001. The term “ship” is used to denote a _____ employed to transport goods and persons from one point to another over water.

- A. barge B. vehicle C. tank D. lighter

【解析】选 B；术语“船舶”用来表示将货物和人员通过水路从一个地方运到另一个地方的交通工具。

0002. Ship propulsion normally occurs with the help of a _____, which is the term most widely used in English, although the word “screw” is sometimes seen, inter alia in combinations such as a “twin-screw” propulsion plant.

- A. thruster B. screw C. rivet D. propeller

【解析】选 D；通常船舶在螺旋桨的作用下产生推力，在英语中用 propeller 表示螺旋桨最常见，尽管有时会看到用 screw 这个词，特别是在组合使用时，如 twin-screw（双螺旋桨推进装置）。

0003. The light weight of a ship is not normally used to indicate the size of a ship, whereas the _____, based on the ship’s loading capacity, including fuel and lube oils, etc. for operation of the ship, measured in tons at scantling draught, often is.

- A. displacement tonnage B. light weight tonnage
C. heavy weight tonnage D. deadweight tonnage

【解析】选 D；船舶的净重通常不用来表示船舶的主要技术指标，而是通常用基于船舶载货能力的载重吨来表示船舶的尺寸，包括用于船舶运行的、在结构吃水方面以吨测量的燃油和滑油。

0004. The influence of frictional and residual resistances depends on how much of the hull is _____ the waterline, while the influence of air resistance depends on how much of the ship is _____ the waterline.

- A. below; above B. below; below C. above; below D. above; above

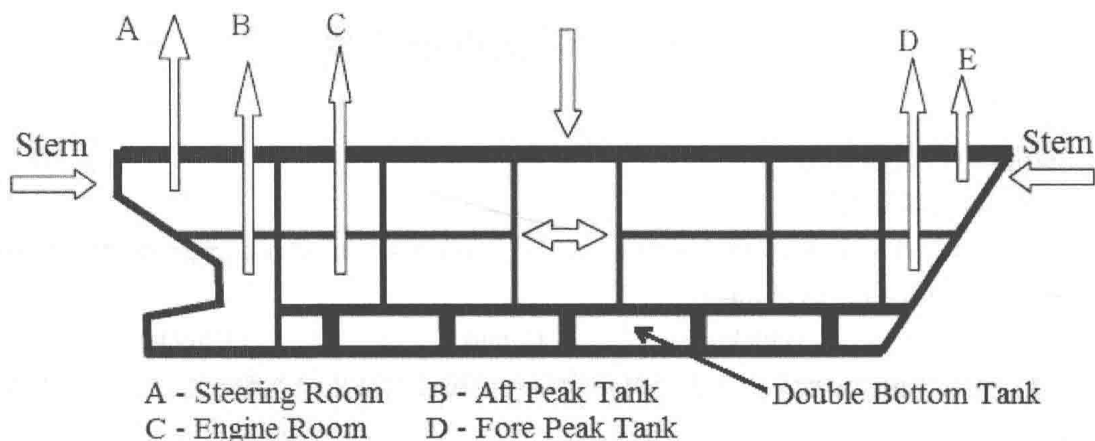
【解析】选 A；摩擦阻力和残余阻力的影响取决于水线以下船体的大小，而空气阻力的影响取决于水线以上船体的大小。

0005. Wave resistance refers to the energy loss caused by waves created by the vessel during its propulsion through the water, while eddy resistance refers to the loss caused by flow separation which creates eddies, particularly at the _____ of the ship.

- A. aft end B. fore end C. middle D. deck

【解析】选 A；兴波阻力指的是船只在水中航行时激起的波浪对船舶推进效率造成的能量

损失，而涡流阻力是指流体分离产生的涡流所引起的损失，尤其是在船的尾部经常发生的涡流。



0006. According to vessel's structure, the extreme aft end of the vessel is called _____.

- A. stem B. stern C. aft peak D. aft end

【解析】选 B；根据船舶结构，船的最后部称为“船艉”。

0007. According to vessel's structure, the extreme fore end of the vessel is called _____.

- A. stem B. stern C. fore peak tank D. dead end

【解析】选 A；根据船舶结构，船的最前部称为“船艏”。

0008. The double bottom of the ship increases the strength and provides storage for _____. ① Fuel; ② Lubricating oil; ③ Water

- A. ① and ③ B. ② C. ① D. ①, ② and ③

【解析】选 D；船舶双层底可增加强度，并提供储存燃油、滑油和水的地方。

0009. The distance between the bottom of the hull and the waterline is called _____.

- A. tonnage B. reserve buoyancy
C. draft D. freeboard

【解析】选 C；船体底部与水线之间的距离称为“吃水”。

0010. The different between the starboard and port drafts caused by a transverse shift in weight is _____.

- A. list B. heel C. trim D. flotation

【解析】选 A；由于横移造成的船舶左右吃水差称为“横向吃水差”。

0011. The trim of a vessel is the _____.

- A. value of the mean draft B. degree of list
C. amount of roll D. difference in fore and aft drafts

【解析】选 D；船舶的“纵向吃水差”表示船舶船艏吃水的差。

0012. When the whole ship rises and falls back into a trough, she is _____.

- A. heaving B. surging C. swaying D. rolling

【解析】选 A；当整条船在波谷中起落时，船是在“垂荡”。

0013. When her bow is pushed to starboard and then to port, the vessel is _____.

A. pitching B. rolling C. yawing D. surging

【解析】选 C；当船头一会儿被推向右侧，一会儿被推向左侧，称船在“艏摇”。

0014. When ship's stem and stern rise and fall with the waves, the vessel is _____.

A. pitching B. rolling C. yawing D. surging

【解析】选 A；当船头和船尾随着波浪上下起伏，称船在“纵摇”。

0015. When her starboard and port side rise and fall with the waves, the vessel is _____.

A. pitching B. rolling C. yawing D. surging

【解析】选 B；当船的右舷和左舷随波浪上下起伏，称船在“横摇”。

0016. When the ship is pushed forward by the waves and sinks back into a trough, she is _____.

A. surging B. heaving C. rolling D. swaying

【解析】选 A；当船被波浪推向前并陷入波谷中，称为“纵荡”。

0017. Machinery and fixed equipment is also used to identify _____ around the engine room. This includes machinery such as engines (main, auxiliary or emergency), pumps, compressors, motors, boilers and so on.

A. functions B. ways C. locations D. works

【解析】选 C；机器和固定设备也可用来确定在机舱周围的位置。这包括像主机、副机或应急发动机、泵、压缩机、马达、锅炉等机器。

1.1.2 船舶动力装置的类型

0018. Marine power plant is a plant that propels a _____ vessel.

A. submarine B. suspending C. ship-borne D. waterborne

【解析】选 D；船舶动力装置是驱动水上船舶的装置。submarine 意为“水下的”；ship-borne 意为“船上的”；waterborne 意为“水上的，水运的”。

0019. _____ is the prime important characteristic for a marine power plant.

A. Reliability B. Fuel economy C. Low maintenance D. Long life

【解析】选 A；可靠性是船舶动力装置的首要特征。

0020. There are four main types of marine power plants: _____.

- A. the diesel engine, the steam turbine, the gasoline engine and the marine nuclear plant
 B. the diesel engine, the steam turbine, the gas turbine and the marine nuclear plant
 C. the diesel engine, the internal combustion turbine, the external combustion engine and the marine nuclear plant
 D. the diesel engine, the steam turbine, the exhaust turbine and the marine nuclear plant

【解析】选 B；船舶动力装置主要有四种：柴油机、蒸汽轮机、燃气轮机和船用核动力装置。

0021. Among the main propulsions of various types that produce the same power, the lightest one is _____.

A. gasoline engine B. steam engine C. gas turbine D. diesel engine

【解析】选 C；产生相同功率的各种类型的主推进装置中，重量最轻的是燃气轮机。

0022. Gas turbines differ from steam turbines in that _____.

- A. steam rather than gas is used to turn a shaft B. vapor rather than gas is used to turn a shaft
C. the former uses gas to turn a shaft D. the latter uses gas to turn a shaft

【解析】选 C；燃气轮机和蒸汽轮机区别在于前者使用燃气驱动转轴。

0023. Propulsion of the vast majority of contemporary merchant ship (especially containerships and VLCCs) utilizes _____ as prime mover.

- A. gas turbine B. diesel engine C. steam engine D. gasoline engine

【解析】选 B；当代大多数商船（特别是集装箱船和超大型油轮）都采用柴油机作为推进船舶的原动机。prime mover 意为“原动机”；VLCC 即 Very Large Crude-oil Carrier，意为“超大型油轮（载重吨在 20~30 万吨之间）”；ULCC 即 Ultra Large Crude-oil Carrier，意为“巨型油轮（载重吨在 30 万吨以上）”。

0024. Diesel engines instead of steam engines were used as main engine on board ships is mainly because _____.

- A. they have a high mechanical efficiency B. they have a high thermal efficiency
C. they are more reliable D. they are safer

【解析】选 B；船舶上柴油机取代蒸汽机作为主机主要是因其热效率高。mechanical efficiency 意为“机械效率”；thermal efficiency 意为“热效率”。

0025. Today, the primary source of propeller power is the diesel engine, and the power requirement and rate of revolution very much depend on _____.

- A. the ship's hull form
B. the propeller design
C. the ship's hull form and the propeller design
D. the ship's engine and the fuel type

【解析】选 C；目前，螺旋桨动力的主要来源是柴油机，动力要求和转速很大程度取决于船型和螺旋桨结构。

0026. The diesel engine is a type of _____.

- A. turbine engine B. steam engine
C. gas turbine D. internal combustion engine

【解析】选 D；柴油机是一种内燃机。

0027. We call a ship equipped with diesel main engine “_____”.

- A. a tug boat B. an oil tanker C. a salvage ship D. a motor vessel

【解析】选 D；用柴油机作为主机的船舶称为“内燃机船”。

0028. Diesel engines are classified as reciprocating internal combustion engines because they _____.

- A. use energy from fuel burned outside their cylinders
B. burn fuel in a combustion chamber that moves back and forth
C. burn fuel in a chamber where its energy moves a piston back and forth
D. use a continuous combustion process to impart rotary motion to the pistons

- C. because of their smaller size and weight
 D. that they can be connected directly to the propeller without gearing

【解析】选 C；越来越多的商船使用中速柴油机，原因在于它们体积小，重量轻。

0037. Medium-speed engines have the following advantages EXCEPT _____.

- A. medium-speed engines use less oil than slow-speed engines
 B. medium-speed engines of later type are capable of burning low quality heavy fuel oil
 C. the engines have long strokes which improve engine efficiency
 D. the engines are compact, thus providing more spaces for cargoes and passengers

【解析】选 C；中速机具有以下特点：比低速机使用更少的油；近来的中速机可燃用低质的重油；结构紧凑，可为货物和旅客提供更大的空间。不包括提高柴油机效率的长冲程。

0038. _____ are increasingly used as main engine on merchant vessels, because they have a high Hp/Weight ratio.

- A. Slow speed diesel engines
 B. Medium-speed diesel engines
 C. Steam engines
 D. Gasoline engines

【解析】选 B；中速机作为商船的主机有增加的趋势是因为其具有较高的功率重量比。

0039. Medium speed engines have a _____ power to weight ratio than the slow speed two strokes, but due to the higher speeds tend to have _____ maintenance intervals.

- A. higher; reduced
 B. higher; increased
 C. lower; reduced
 D. lower; increased

【解析】选 A；中速机与低速二冲程机相比有较高的功率/重量比，但也因其高速使得维修间隔缩短。

0040. _____ can be found on most medium to large merchant vessels even if the main engine is either a steam turbine or a 2-stroke crosshead engine.

- A. The medium speed 4-stroke trunk piston engine
 B. The low speed 2-stroke crosshead engine
 C. The medium speed 2-stroke crosshead engine
 D. The low speed 4-stroke piston engine

【解析】选 A；中速四冲程筒状活塞式柴油机可见于大多数的中型和大型商船，即使其主机是蒸汽透平或是二冲程十字头式柴油机。

0041. Typical marine propulsion plants include _____ directly coupled to the vessel's single large-diameter, fixed-pitch propeller.

- A. a single, long-stroke, slow-speed, turbocharged, two-stroke diesel engine
 B. a single, long-stroke, medium-speed, turbocharged, four-stroke diesel engine
 C. two medium-speed, turbocharged, four-stroke diesel engines
 D. a variable-speed AC generator

【解析】选 A；典型的船舶推进装置包括一台长冲程低速增压二冲程柴油机和一个大直径定距桨，两者直接连轴。fixed-pitch propeller 意为“定距桨”。

0042. Large, slow speed, two-stroke marine diesel engines offer the following advantages

EXCEPT _____.

- A. burning poorer quality, cheaper fuel B. providing large power
C. being reversible D. using less oil than medium speed engines

【解析】选 D；大型低速二冲程船用柴油机具有燃用更劣质、便宜的燃油，提供大功率，可逆转的优点，不包括比中速机使用更少的油。

0043. The slow speed main propulsion diesel operates on two-stroke cycle. At this low speed, the engine requires no reduction gear box between it and _____.

- A. thrust blocks B. propeller C. flying wheel D. rudder

【解析】选 B；低速二冲程柴油机用作主推进装置时，发动机和螺旋桨之间不需要减速齿轮箱。

0044. _____ is used to provide a low-speed drive for the propeller shaft.

- A. High speed diesel engine B. Medium speed diesel engine
C. Steam turbine D. A gearbox

【解析】选 D；用齿轮箱来给螺旋桨轴提供低速驱动力。

0045. What is the application of high-speed diesel engine at sea? ① They are used for emergency power generation to small applications; ② They are used for electrical power generation on board ships driven by medium-speed propulsion engines; ③ They can be used on tugs, ferries and barges, etc. as main engines.

- A. ① and ②. B. ② and ③. C. ③. D. ①, ② and ③.

【解析】选 D；高速柴油机在船上的应用有：给小型设备应急供电；为中速发动机驱动的船舶发电；在拖轮、渡轮和驳船等船上用作主机。

0046. _____ allows the engines to be placed wherever is most suitable, as they no longer have to be aligned with reduction gearing and shafting as is the case with conventional installations.

- A. Diesel engine propulsion B. Diesel electric propulsion
C. Steam engine propulsion D. Gas turbine propulsion

【解析】选 B；柴油机电力推进系统的柴油机可布置在（机舱的）最佳位置，而不用像常规装置那样考虑柴油机与减速器和轴系的对中问题。be aligned with...意为“与……对中”。

0047. EEDI represents the amount of CO₂ in _____.

- A. g/teu/n mile B. g/teu/dwt C. g/dwt/n mile D. g/dwt/teu

【解析】选 C；EEDI（能效设计指数）表示运输每载重吨货物每海里所排放 CO₂ 的克数。

0048. The main engine's 75% _____ figure is as standard applied in the calculation of the _____ figure, in which also the CO₂ emission from the auxiliary engines of the ship is included.

- A. EEDI; SMCR B. SFOC; EEDI C. SMCR; EEDI D. SMCR; SFOC

【解析】选 C；主机指定最大持续功率 75%数据用于计算能效设计指数的标准值，船舶发电柴油机的 CO₂ 排放也包括在其中。SMCR，即 Specified Maximum Continuous Rating，意为“指定最大持续功率”；EEDI，即 Energy Efficiency Design Index，意为“能效设计指数”。

1.2 船舶柴油机装置

1.2.1 基本特性指标

0049. The abbreviation “MIP” stands for _____.

- A. middle indicating pressure B. mean indicate pressure
C. mean indicated pitch D. middle indicated power

【解析】选 B；术语“MIP”，是指气缸的平均指示压力。

0050. The average pressure exerted on a piston during each power stroke is termed _____.

- A. indicated horsepower B. mean effective pressure
C. exhaust back pressure D. compression pressure

【解析】选 B；在每个动力冲程施加在活塞上的平均压力被定义为平均有效压力。

0051. _____ power is the power developed within the cylinder and can be measured by an engine indicator.

- A. The shaft B. The mechanical C. The electric D. The indicated

【解析】选 D；指示功率是气缸发出的功率，并可通过发动机的示功图来测量。indicated power 意为“指示功率”；indicator 意为“示功器”

0052. The most important factor in engine performance is the actual power output at the end of the crankshaft available for doing work. This is known as _____.

- A. indicated horsepower B. brake horsepower
C. net horsepower D. friction horsepower

【解析】选 B；发动机性能最重要的因素是曲轴末端的实际功率输出，即“制动马力(BHP)”。

0053. The ratio of the brake horsepower to the indicated horsepower of a diesel engine is its _____.

- A. thermal efficiency B. mechanical efficiency
C. brake thermal efficiency D. volumetric efficiency

【解析】选 B；柴油机的制动马力与指示马力之比即为其机械效率。

0054. (Piston area) × (Piston stroke) × (numbers of the cylinders) = engine _____.

- A. brake horsepower B. displacement
C. cylinder volume D. cylinder clearance

【解析】选 B；活塞面积×活塞冲程×气缸数=发动机排量。

0055. The main factor determining the output of each cylinder is the cylinder _____.

- A. density B. bore C. weight D. material

【解析】选 B；决定每个气缸输出功率的主要因素是缸径。

0056. The cubic inch (or liter) displacement of a cylinder is determined by the diameter of the piston and the _____.

- A. length of the crankshaft B. volume of the clearance space
C. weight of the piston D. length of the stroke

【解析】选 D；气缸的排量由活塞的直径和冲程的长度决定。

0057. The figure that the volume of air at BDC is divided by the volume of air at TDC is termed as _____.

- A. ignition ratio B. power ratio C. compression ratio D. injection ratio

【解析】选 C；下止点时空气的体积除以上止点时的空气体积，即为“压缩比”。BDC 即 Bottom Dead Center，意为“下止点”；TDC 即 Top Dead Center，意为“上止点”。

0058. If the compression ratio is increased on any diesel engine, _____.

- A. the expansion ratio will decrease B. combustion will be slowed down
C. thermal efficiency will decrease D. thermal efficiency will increase

【解析】选 D；如果柴油机压缩比提高则热效率提高。compression ratio 意为“压缩比”；thermal efficiency 意为“热效率”。

0059. Increasing the compression ratio of a diesel engine while maintaining the designed rate of fuel flow will result in _____.

- A. increased horsepower B. reduced efficiency
C. increased heat loss D. lower cylinder pressures

【解析】选 A；维持设计的油流速度而提高柴油机的压缩比会导致功率增加。

0060. _____ the supercharge pressure is, _____ power an engine develops.

- A. The higher; the more B. Higher; more
C. Higher; little D. The higher; the less

【解析】选 A；增压压力愈高，发动机发出的功率也就愈大。

0061. An indicator diagram is a pressure-volume graph taken from the pressure in the _____ of a working engine.

- A. crankcase B. fuel pump
C. scavenge trunk D. cylinder

【解析】选 D；示功图可以用来表达发动机工作时某个气缸内压力与体积的关系。

0062. The indicated power of an engine can be obtained by taking the _____.

- A. precautions B. rpm
C. indicator cards D. B and C

【解析】选 D；获取发动机的指示功，要测取示功图和发动机每分钟转数（rpm）。

0063. The work fuel does in each working cycle can be obtained by taking the _____.

- A. precautions B. rpm
C. indicator cards D. B and C

【解析】选 C；每个工作循环燃油做的功可直接通过测取示功图来得到。

0064. Which of the following can be obtained by means of an indicator card?

- A. Power. B. Maximum (peak) pressure in a cylinder.
C. Mean pressure in a cylinder. D. The fuel consumption.

【解析】选 B；气缸的最大爆炸压力可直接由示功图得到。

0065. Modern marine diesel engines using mechanical fuel injection operate on a combustion cycle which is _____.

- A. a combination of constant volume and constant pressure
- B. a combination of constant temperature and constant pressure
- C. entirely constant pressure
- D. entirely constant volume

【解析】选 A；使用机械式燃油喷射的现代船用柴油机，其燃烧循环是定容和定压两个热力过程的结合。

0066. Suppose the rated capacity of the main engine of a ship is 10,000 kW at 100 rated rpm, then when at 80 rpm its capacity should be _____.

- A. 800 kW
- B. 5,120 kW
- C. 6,400 kW
- D. 4,180 kW

【解析】选 B；当额定转速为 100 rpm 时，额定功率为 10,000 kW，（根据柴油机的运转特性）当运行在 80 rpm 时，功率应为 5,120 kW。

0067. When a diesel engine is operating at partial load, as compared to full load, a decrease will occur in the average _____.

- A. air quantity aspirated
- B. fuel injection pressure
- C. combustion pressure on the power stroke
- D. compression on the compression stroke

【解析】选 C；柴油机部分负载运转时，做功冲程的平均燃烧压力会比全负荷时有所下降。

0068. Which of the factors listed has the greatest effect on the mechanical efficiency of a diesel engine?

- A. Temperature of the intake air.
- B. Friction within the engine.
- C. Mechanical condition of the supercharger.
- D. Mechanical condition of the turbocharger.

【解析】选 B；机器内部的摩擦对柴油机的机械效率影响最大。

0069. B&W engines are very _____ but they very wisely provide excellent documentation to cover many contingencies which may only rarely arise.

- A. reliable
- B. dangerous
- C. strong
- D. economic

【解析】选 A；B&W 发动机非常可靠，但是他们也非常明智地提供了证明文件，这些文件包括极其偶然发生的事件（事故）。arise 意为“出现，发生”。

0070. Diesel engine are remarkably simple in principle and require little in way of _____, although what little is required is essential to a long life.

- A. cleaning the lubricating oil filters and seeing that their strainer inserts are free from defects.
- B. the routine maintenance to the diesel engine
- C. the running hours of the diesel engine at full speed
- D. the use of heavy fuel oils containing asphalt

【解析】选 B；柴油机在原理上相当简单，且仅需较少的日常维护，虽然该维护对于柴油机维持较长的使用寿命至关重要。

1.2.2 船舶柴油机的工作原理和基本结构

0071. Heat for igniting the fuel oil in the cylinder of a diesel engine is generated by the _____.

- A. electronic ignition system
- B. compression of air by the piston

C. friction in the fuel injector D. fuel oil bearing system

【解析】选 B；活塞压缩空气产生的热量点燃气缸内的燃油。

0072. Which of the following statements is a description of the combustion cycle?

- A. The mechanics of engine operation.
 B. The heat process which produces the force to initiate the movement of the engine parts.
 C. The number of piston strokes involved.
 D. The mechanical equivalent of heat.

【解析】选 B；“燃烧循环”可描述为“产生力并引发发动机部件产生运动的一种热力过程”。

0073. Which statement about diesel engine combustion is true?

- A. Combustion does not begin until the piston starts down on the power stroke.
 B. Maximum combustion pressure is reached before TDC.
 C. Turbulence in the cylinder causes a delay in ignition.
 D. Maximum cylinder firing pressure is not developed until the piston passes TDC.

【解析】选 D；直到活塞经过上止点，气缸内的最大爆炸压力才产生。

0074. The most rapid period of fuel combustion in a diesel engine cylinder should begin just before the piston reaches top dead center and _____.

- A. when fuel injection has been completed
 B. when fuel vaporization has been completed
 C. should efficiently continue through the after burning period in all properly designed engines
 D. should be completed shortly after passing top dead center

【解析】选 D；柴油机气缸内燃油的速燃期应开始于活塞刚到达上止点之前，结束于活塞刚经过上止点之后。

0075. The four-stroke cycle is so called because it takes _____ to complete the processes needed to convert the energy in the fuel into work.

- A. two strokes of the piston B. four strokes of the piston
 C. one revolution of the crankshaft D. four revolutions of the crankshafts

【解析】选 B；所谓四冲程循环是因为它需要活塞四个冲程来完成将燃油中的能量转变为功。

0076. The working cycle of a four-stroke diesel engine consists of four events. The correct sequence is _____. ① Compression; ② Expansion; ③ Exhaust; ④ Suction.

- A. ④→②→③→① B. ④→③→①→②
 C. ④→③→②→① D. ④→①→②→③

【解析】选 D；四冲程的先后次序应该是吸气、压缩、膨胀、排气。

0077. The four-stroke are called suction, compression, expansion and exhaust, but only _____ stroke provides the power to drive the ship.

- A. suction B. compression C. expansion D. exhaust

【解析】选 C；四冲程即吸气、压缩、膨胀和排气冲程，只有膨胀冲程能提供动力驱动船舶。

0078. A piston in a four-stroke/cycle diesel engine makes four strokes during each _____.

- A. crankshaft revolution B. mechanical cycle of operation

C. period of two combustion cycles D. cycle of two events

【解析】选 B；四冲程柴油机的活塞在每个工作循环中完成四个冲程。

0079. In a four-stroke engine, which process lasts the longest period?

A. Exhaust and suction process. B. Suction and compression process.
C. Combustion and exhaust process. D. Working and exhaust process.

【解析】选 A；在四冲程柴油机中，排气和吸气过程持续的时间最长。

0080. The four-stroke engine is used for _____ and sometimes for main propulsion with a gearbox to provide a propeller speed of between 90 to 120 r/min.

A. alternator B. turbo-charger
C. remote controller D. windlass

【解析】选 A；四冲程发动机用作交流发电机的原动机，有时也可用作主推进装置，但需要带减速齿轮箱，以提供螺旋桨 90~120 r/min 的转速。

0081. The _____ engine is used for alternators and sometimes for main propulsion with a gearbox to provide a propeller speed of between 90 to 120 r/min.

A. four-stroke B. slow speed
C. two-stroke D. reversible

【解析】选 A；四冲程发动机用作交流发电机的原动机，有时也可用作主推进装置，但需要带减速齿轮箱，以提供螺旋桨 90~120 r/min 的转速。

0082. The two strokes of a two-stroke/cycle diesel engine are _____.

A. power and intake B. intake and exhaust
C. exhaust and compression D. compression and power

【解析】选 D；二冲程柴油机的两个行程是压缩和做功。

0083. In the two-stroke engine, each revolution of _____ makes one power or working stroke.

A. the turning gear B. the turbo-charger
C. the crankshaft D. the compressor

【解析】选 C；二冲程柴油机中，曲轴每转一转，就产生一个做功冲程。

0084. In diesel engines, the four basic events (intake, compression, power and exhaust) are performed once in _____.

A. two crankshaft revolutions in a two-stroke/cycle engine
B. two power strokes in a two-stroke/cycle engine
C. one power stroke in a two-stroke/cycle engine
D. two piston strokes in a two-stroke/cycle engine

【解析】选 D；在二冲程柴油机中，活塞两个冲程期间，进气、压缩、做功和排气等四个动作各进行一次。

0085. According to the principle of four stroke diesel engine, what is the number of its efficient work stroke per revolution?

A. 0.5. B. 1. C. 2. D. 3.

【解析】选 A；根据四冲程柴油机的工作原理，每两转有一个有效的做功冲程。