

U.S.C.G. Merchant Marine Exam

QMED

Q805 Oiler-Part II

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. What type of grease is the most commonly used aboard ship?

- (A) Lime-based grease
- (B) Lithium-based grease
- (C) Calcium-based grease
- (D) Aluminum-based grease

If choice B is selected set score to 1.

2. Which of the following conditions is a symptom of a person in shock?

- (A) Cold and damp
- (B) Warm and dry
- (C) Cold and dry
- (D) Warm and damp

If choice A is selected set score to 1.

3. The blade for a power hacksaw should be installed with the teeth _____.

- (A) pointing toward the motor if using a 4 or 6 tooth blade and away from the motor if using a 10 or 14 tooth blade
- (B) pointing either toward or away from the motor end of the machine
- (C) pointing away from the motor end of the machine
- (D) pointing toward the motor end of the machine

If choice D is selected set score to 1.

4. Which practices should be followed at all times when using an electric grinding machine?

- (A) Wear goggles or face shield.
- (B) Be properly trained in the use of this tool.
- (C) Be certain that the frame is properly grounded.
- (D) Each of the above practices.

If choice D is selected set score to 1.

5. When you have completed bunkering operations, the hoses should be _____.

- (A) drained into drip pans or tanks
- (B) stowed with their ends open for venting
- (C) steam cleaned and flushed with hot water
- (D) blown down with inert gas

If choice A is selected set score to 1.

6. To set the dividers to the proper radius, you should use a _____.

- (A) caliper
- (B) steel rule
- (C) micrometer
- (D) scribing circle

If choice B is selected set score to 1.

7. The property of a fuel oil which is a measurement of its available energy is known as its _____.

- (A) cetane index
- (B) cetane number
- (C) heating value
- (D) viscosity index

If choice C is selected set score to 1.

8. In preparing the surface of a metal for application of primers and finish coats, which of the listed hand tools is a must for cleaning inside corners?

- (A) Hand scraper
- (B) Wire brush
- (C) Chipping hammer
- (D) Sandpaper

If choice D is selected set score to 1.

9. Needle nosed pliers are best used to _____.

- (A) tighten electrical wire clamps
- (B) grasp items positioned in tight places
- (C) cut recessed cotter pins
- (D) strip insulation from electric wire or cable

If choice B is selected set score to 1.

10. What material is most commonly used as a sacrificial anode for the purposes of minimizing the galvanic corrosion of steel and cast iron?

- (A) Bronze
- (B) Platinum
- (C) Zinc
- (D) Brass

If choice C is selected set score to 1.

11. Of the many impurities commonly found in marine lubricating oil, which of the following CANNOT be removed by a centrifugal purifier at normal operating speeds and temperatures?

- (A) Diesel fuel oil
- (B) Metal particles
- (C) Water
- (D) Carbon particles

If choice A is selected set score to 1.

12. In figure 1 of the illustration, fire would spread to compartment "B" by _____. Illustration SF-0013

- (A) radiation
- (B) impingement
- (C) convection
- (D) conduction

If choice D is selected set score to 1.

13. To anneal a copper gasket, you should heat the gasket _____.

- (A) and let cool slowly in the air
- (B) and quench it in oil
- (C) and carbonize it
- (D) cherry red and quench in water

If choice D is selected set score to 1.

14. In what remote temperature indicating system is a voltage generated by the magnitude of temperature difference between hot and cold junctions?

- (A) Resistance temperature detector
- (B) Bimetallic sensor
- (C) Thermocouple
- (D) Thermistor

If choice C is selected set score to 1.

15. On a ship with a continuously manned engine room, with a three-person watch rotation, what is the watch and rest period rotation?

- (A) 4 hours on watch followed by 8 hours rest
- (B) 6 hours on watch followed by 6 hours rest
- (C) 8 hours on watch followed by 4 hours rest
- (D) 8 hours on watch followed by 8 hours rest

If choice A is selected set score to 1.

16. What application often requires a valve to be remotely operated from a control station, where the valve itself is operated by an electric, pneumatic, or hydraulic motor?

- (A) A small valve that is routinely operated during plant operations.
- (B) A large valve that is routinely operated during plant operations.
- (C) A large valve that is rarely operated during plant operations.
- (D) A small valve that is rarely operated during plant operations.

If choice B is selected set score to 1.

17. In terms of the personal safety of an engine room watch standing rating, which alarm response would be the most immediately critical?

- (A) M/E low lube oil pressure alarm
- (B) M/E high coolant temperature alarm
- (C) E/R fixed CO₂ impending release alarm
- (D) General emergency alarm

If choice C is selected set score to 1.

18. Which bearing will carry the load on two small points diametrically opposite to each other?

- (A) Ball
- (B) Roller
- (C) Tapered roller
- (D) Needle

If choice A is selected set score to 1.

19. With all other factors considered equal (such as voltage, conducting path through the body and the duration of contact), contact with an energized electrical system conductor of which system type would produce the most damaging effect?

- (A) DC systems
- (B) 60 Hz AC systems
- (C) 10 kHz AC systems
- (D) All the above systems would be equally as damaging

If choice B is selected set score to 1.

20. Before electrical work can be safely undertaken, the equipment must be de-energized, locked and tagged out, and verification must be made that the circuit is actually dead. What testing device is most certain to reliably verify that a circuit is actually dead?

- (A) a non-contact voltage tester
- (B) an auto ranging digital multimeter
- (C) a solenoid type voltage tester
- (D) a non-auto ranging digital multimeter

If choice B is selected set score to 1.

21. The state of charge of a stored pressure type dry chemical fire extinguisher can be readily determined by _____.

- (A) visual inspection of the pressure gage
- (B) removing the lid and checking the level of dry chemical
- (C) weighing the cylinder
- (D) weighing the CO₂ cartridge

If choice A is selected set score to 1.

22. For what reason should engine room watch standers keep a constant check on the loads carried by electric motors?

- (A) energy is wasted if full loading is not utilized
- (B) residual magnetism may increase
- (C) low loads necessitate frequent insulation cleaning
- (D) exceeding nameplate currents shortens useful life

If choice D is selected set score to 1.

23. You are about to enter a compartment to investigate a suspected smoldering fire. If you're not wearing a self-contained breathing apparatus, you should test the compartment's atmosphere to determine if there is/are _____.

- (A) a toxic atmosphere in the compartment
- (B) an explosive mixture in the compartment
- (C) sufficient oxygen to sustain human life
- (D) all of the above

If choice D is selected set score to 1.

24. Paints and solvents used aboard a vessel should be _____.

- (A) stowed safely at the work site until work is completed
- (B) returned to the paint locker after each use
- (C) drained into a common container after each use
- (D) covered with a fine mesh screen to protect from ignition sources

If choice B is selected set score to 1.

25. In which figure shown in the illustration will the highest voltage be induced? Illustration EL-0028

- (A) figure "A" only
- (B) figure "B" only
- (C) both figures "A" and "C"
- (D) both figures "B" and "D"

If choice D is selected set score to 1.

26. When shore power is being connected to a ship in dry-dock, what must be ensured, assuming that the ship's generators are rated at 450 VAC, 60 Hz with a total capacity of 5000 kW?

- (A) exactly 60 Hz must be supplied from shore, as no tolerance is permitted
- (B) shore power must be capable of delivering a total of 5000 kW
- (C) exactly 450 volts must be supplied from shore, as no tolerance is permitted
- (D) shore power phase sequence must agree with that of the ship

If choice D is selected set score to 1.

27. What type of respiratory protection provides the greatest protection from the various respiratory hazards, is specifically designed for emergency and rescue situations, but has time constraints associated with its use?

- (A) Emergency escape breathing apparatus
- (B) Powered air-purifying respirator
- (C) Reusable full-mask respirator
- (D) Self-contained breathing apparatus

If choice D is selected set score to 1.

28. Which of the listed characteristics of fuel oil establishes the danger point as far as transferring, pumping, and firing procedures are concerned?

- (A) Viscosity
- (B) Fire point
- (C) Specific gravity
- (D) Flash point

If choice D is selected set score to 1.

29. First aid treatment for small cuts and open wounds is to _____.

- (A) stop the bleeding, clean, medicate, and cover the wound
- (B) apply a hot towel to purge the wound, then medicate and cover it
- (C) apply an ice pack to the wound and cover it when the bleeding stops
- (D) lay the patient down and cover the wound when the bleeding stops

If choice A is selected set score to 1.

30. Under what circumstances can equipment be operated when tagged with DANGER tags?

- (A) Whenever you feel that it is safe to do so.
- (B) Whenever permission is granted by your supervisor.
- (C) Whenever there is a break in the actual maintenance activity.
- (D) Under NO circumstances should the equipment be operated when tagged.

If choice D is selected set score to 1.

31. Before disconnecting a joint in a pipeline, you should _____.

- (A) have a first aid kit on hand
- (B) determine the size of the gasket
- (C) hang a bucket under the joint
- (D) be sure no pressure exists in the line

If choice D is selected set score to 1.

32. In the event of a fire, the doors to a stair tower must be closed to prevent the spread of fire by _____.

- (A) conduction
- (B) radiation
- (C) ventilation
- (D) convection

If choice D is selected set score to 1.

33. If you see an individual fall overboard, you should _____.

- (A) hail 'Man Overboard'
- (B) throw a life ring overboard
- (C) pass the word to the bridge
- (D) all of the above

If choice D is selected set score to 1.

34. Which extinguishing agent is most likely to allow reflash as a result of not cooling the fuel below its ignition temperature?

- (A) CO₂
- (B) Water stream
- (C) Water fog
- (D) Foam

If choice A is selected set score to 1.

35. Which of the gases listed is the poisonous gas most likely to be found in a closed compartment involved in a fire?

- (A) Nitrogen
- (B) Hydrogen
- (C) Carbon monoxide
- (D) Carbon dioxide

If choice C is selected set score to 1.

36. Before making up a flanged joint, you should _____.

- (A) cut grooves in the flange face with a chisel
- (B) be certain that the flanges line up squarely
- (C) heat the pipeline to expand the bolt holes
- (D) have a second spare gasket on hand

If choice B is selected set score to 1.

37. The fire extinguishing equipment shown in the illustration is a large _____. Illustration SF-0009

- (A) CO₂ hose reel system
- (B) dry chemical hose reel system
- (C) Halon 1301 hose reel system
- (D) light water hose reel system

If choice B is selected set score to 1.

38. What statement is true concerning remote valve position indication at a control station?

- (A) 90° rotary valves generally have valve only open and closed indicators, whereas gate and globe valves generally have degree of opening indicators.
- (B) 90° rotary valves and gate valves generally have valve only open and closed indicators, whereas globe valves generally have degree of opening indicators.
- (C) 90° rotary valves and globe valves generally have valve only open and closed indicators, whereas gate valves generally have degree of opening indicators.
- (D) Gate and globe valves generally have valve only open and closed indicators, whereas 90° rotary valves generally have degree of opening indicators.

If choice B is selected set score to 1.

39. When installing DANGER tags when performing a tag-out and lock-out procedure in preparation for accomplishing maintenance, what is the color of these tags?

- (A) Orange
- (B) Red
- (C) Yellow
- (D) Green

If choice B is selected set score to 1.

40. If a person gets something in his eye and you observe that it is not embedded, you can _____.

- (A) remove it with a piece of dry sterilized cotton rag
- (B) get him to rub his eye until the object is gone
- (C) remove it with a moist cotton-tipped applicator
- (D) remove it with a match or toothpick

If choice C is selected set score to 1.

41. One item listed on the nameplate of a cargo pump motor is 'degrees centigrade rise.' What does the number stamped for this item represent?

- (A) the minimum temperature rise from no load to full load
- (B) the normal temperature rise from cold to hot
- (C) the maximum temperature rise above an ambient temperature of 40°C
- (D) the maximum temperature rise from absolute zero

If choice C is selected set score to 1.

42. Pushing the file endways (or with the axis), under pressure, against the work, is called _____.

- (A) standard form filing
- (B) cross filing
- (C) draw filing
- (D) stroke filing

If choice B is selected set score to 1.

43. Which of the following statements is TRUE concerning life jackets?

- (A) Buoyant vests may be substituted for life jackets.
- (B) Life jackets are designed to turn an unconscious person's face clear of the water.
- (C) Life jackets must always be worn with the same side facing outwards to float properly.
- (D) Lightly stained or faded life jackets will fail in the water and should not be used.

If choice B is selected set score to 1.

44. In what application would a reflex type flat gauge glass be used?

- (A) Indicating a fresh water level, where the water is clear.
- (B) Indicating a lubricating oil level, where the oil is honey colored.
- (C) Indicating a heavy fuel oil level, where the fuel is dark.
- (D) Indicating a chemically treated water level, where the water is brightly colored.

If choice A is selected set score to 1.

45. While loading bulk oil, you notice oil on the water near the barge. Which of the following actions should you carry out FIRST?

- (A) Notify the Coast Guard
- (B) Stop loading
- (C) Notify terminal superintendent
- (D) Search the vessel for leaks

If choice B is selected set score to 1.

46. Your vessel is equipped with totally enclosed lifeboats. Which of the following statements is correct should the boat be enveloped in flames?

- (A) The ventilators will automatically close by the action of fusible links.
- (B) The diesel engine will take its air supply from outside the lifeboat to prevent asphyxiation of the crew.
- (C) A water spay system to cool the outside of the boat is operated by a high-volume manual pump.
- (D) A pressurized air tank will provide approximately ten minutes of air for the survivors and the diesel engine.

If choice D is selected set score to 1.

47. As shown in the illustrated DC machine which is configured as a generator, what is the purpose of the interpoles? Illustration EL-0052

- (A) strengthen the main field above and beyond the capability of the main field poles
- (B) counteract armature reaction to maintain the brushes in the neutral plane to minimize brush sparking
- (C) provide residual magnetism to facilitate an output by means of self-excitation
- (D) statically balance the stator for uniform weight distribution

If choice B is selected set score to 1.

48. The control of exhaust temperature on a solid waste/sludge incinerator is critical. How is this temperature normally controlled?

- (A) The exhaust temperature is controlled by regulating the admission of combustion air into the combustion chamber.
- (B) The exhaust temperature is controlled by regulating the admission of auxiliary fuel to the burner.
- (C) The exhaust temperature is controlled by regulating the exhaust gas flow.
- (D) The exhaust temperature is controlled by regulating the admission of relatively cool ambient air into the exhaust stream.

If choice D is selected set score to 1.

49. What is the characteristic of the blood flow associated with arterial bleeding?

- (A) Dark red blood flowing from the wound with a steady flow.
- (B) Bright red blood flowing from the wound with a steady flow.
- (C) Dark red blood flowing from the wound in spurts.
- (D) Bright red blood flowing from the wound in spurts.

If choice D is selected set score to 1.

50. Copper tubing is manufactured and classified as type K, L, and M. Which type would offer the greatest wall thickness for a given nominal size?

- (A) Type K
- (B) Type L
- (C) Type M
- (D) Type K, L and M have identical wall thicknesses

If choice A is selected set score to 1.

51. For any piece of equipment requiring lubrication, what is the single most important lubricating oil property in meeting the operating conditions?

- (A) Total base number
- (B) Flash point
- (C) Pour point
- (D) Viscosity

If choice D is selected set score to 1.

52. To measure the circumference of a piece of pipe, you should use a _____.

- (A) hook rule
- (B) flexible steel rule
- (C) folding rule
- (D) machinist's steel rule

If choice B is selected set score to 1.

53. Which of the following statements, concerning the cleaning maintenance of a brushless generator, is correct?

- (A) High-pressure air should be used to blow out dust and grime from the windings.
- (B) Hot soapy water should be used to remove dust and grime from the windings.
- (C) Cleaning of windings should be performed on a periodic basis regardless of the state of cleanliness.
- (D) Cleaning of windings should be performed on a conditional basis using a vacuum or using a clean, dry, lint-free rag.

If choice D is selected set score to 1.

54. The function of item "7" shown in the illustration is to _____. Illustration GS-0153

- (A) direct the flow of the oily-water mixture against the coalescer bed
- (B) support the tank access panel
- (C) prevent separated oil from mixing with the incoming bilge water
- (D) allow the oil accumulated to exit the device, while remaining separated from the liquid

If choice C is selected set score to 1.

55. In a compression type automatic grease cup, the lubricant is forced into the bearing by _____.

- (A) spring force
- (B) a pressure gun
- (C) a zerk fitting
- (D) gravity flow

If choice A is selected set score to 1.

56. Which of the following direct reading pressure gauges is capable of measuring and displaying two pressures simultaneously?

- (A) Compound gauge
- (B) Duplex gauge
- (C) Differential pressure gauge
- (D) Simplex gauge

If choice B is selected set score to 1.

57. An LNG carrier has an approved type of gas detecting system to detect methane leaks in the _____.

- (A) cargo handling rooms
- (B) barrier spaces
- (C) boiler burner supply piping
- (D) all of the above

If choice D is selected set score to 1.

58. The external flotation bladder on an immersion suit should be inflated _____.

- (A) before you enter the water
- (B) after you enter the water
- (C) after one hour in the water
- (D) after you notice that your suit is losing buoyancy

If choice B is selected set score to 1.

59. You have abandoned ship and are in charge of a life raft. How much water per day should you permit each occupant to drink after the first 24 hours?

- (A) 1 can
- (B) 1 pint
- (C) 1 quart
- (D) 1 gallon

If choice B is selected set score to 1.

- 60.** With regard to the relative flow patterns through the tubes and the shell of shell-and-tube heat exchangers, what statement is true?
- (A) In a parallel-flow heat exchanger, the flow through the tubes and the flow through the shell are in opposite directions.
 - (B) In a cross-flow heat exchanger, the flow through the tubes and the flow through the shell are in opposite directions.
 - (C) In a counter flow heat exchanger, the flow through the tubes and the flow through the shell are in opposite directions.
 - (D) In a counter flow heat exchanger, the flow through the tubes and the flow through the shell are in the same direction.

If choice C is selected set score to 1.

- 61.** With regard to the number of passes through the tubes of shell-and-tube heat exchangers, what statement is true?
- (A) In single-pass and two-pass heat exchangers, the inlet and outlet tube-side fluid connections are at opposite ends.
 - (B) In single-pass and two-pass heat exchangers, the inlet and outlet tube-side fluid connections are at the same end.
 - (C) In two-pass and four-pass heat exchangers, the inlet and outlet tube-side fluid connections are at opposite ends.
 - (D) In two-pass and four-pass heat exchangers, the inlet and outlet tube-side fluid connections are at the same end.

If choice D is selected set score to 1.

- 62.** Steel-toed safety shoes are recommended for many types of work. What type of work activity would be an exception to the rule and where steel-toed shoes would NOT be recommended?
- (A) Welding fabrications work
 - (B) Rigging and hoisting work
 - (C) Machine shop work
 - (D) Electrical maintenance work

If choice D is selected set score to 1.

- 63.** When treating a person for third degree burns, you should _____.
- (A) make the person stand up and walk to increase circulation
 - (B) break blisters and remove dead tissue
 - (C) submerge the burn area in cold water
 - (D) cover the burns with thick sterile dressing

If choice D is selected set score to 1.

64. With respect to electrical enclosure types, how may an electric motor be designed and constructed?

- (A) overload proof
- (B) ground proof
- (C) explosion proof
- (D) short proof

If choice C is selected set score to 1.

65. Which factor determines the size of the ring dam for a fuel oil centrifugal purifier?

- (A) The viscosity of the fuel.
- (B) The quantity of water to be removed from the fuel.
- (C) The specific gravity of the fuel.
- (D) The quantity of dirt to be removed from the fuel.

If choice C is selected set score to 1.

66. Artificial respiration may be necessary in cases of _____.

- (A) drowning
- (B) poisoning
- (C) electrocution
- (D) all of the above

If choice D is selected set score to 1.

67. What is meant by the term "boxing" paint?

- (A) Thoroughly mixing paint by pouring paint back and forth between two cans.
- (B) Thoroughly mixing paint by using a mechanical stirrer.
- (C) Removing the "skin" that has formed on the surface of the paint in the can.
- (D) Stacking paint cans within a suitable box.

If choice A is selected set score to 1.

68. Why is it essential to introduce CO₂ from a fixed fire extinguishing system, into a large engine room, as quickly as possible?

- (A) The fire may warp the CO₂ piping.
- (B) To keep the fire from spreading through the bulkheads.
- (C) Carbon dioxide takes a long time to disperse to all portions of a space.
- (D) Updraft from the fire tends to carry the CO₂ away.

If choice D is selected set score to 1.

69. An example of an antifriction bearing is a _____.

- (A) line shaft or spring bearing
- (B) Kingsbury thrust bearing
- (C) rubber cutlass strut bearing
- (D) ball bearing

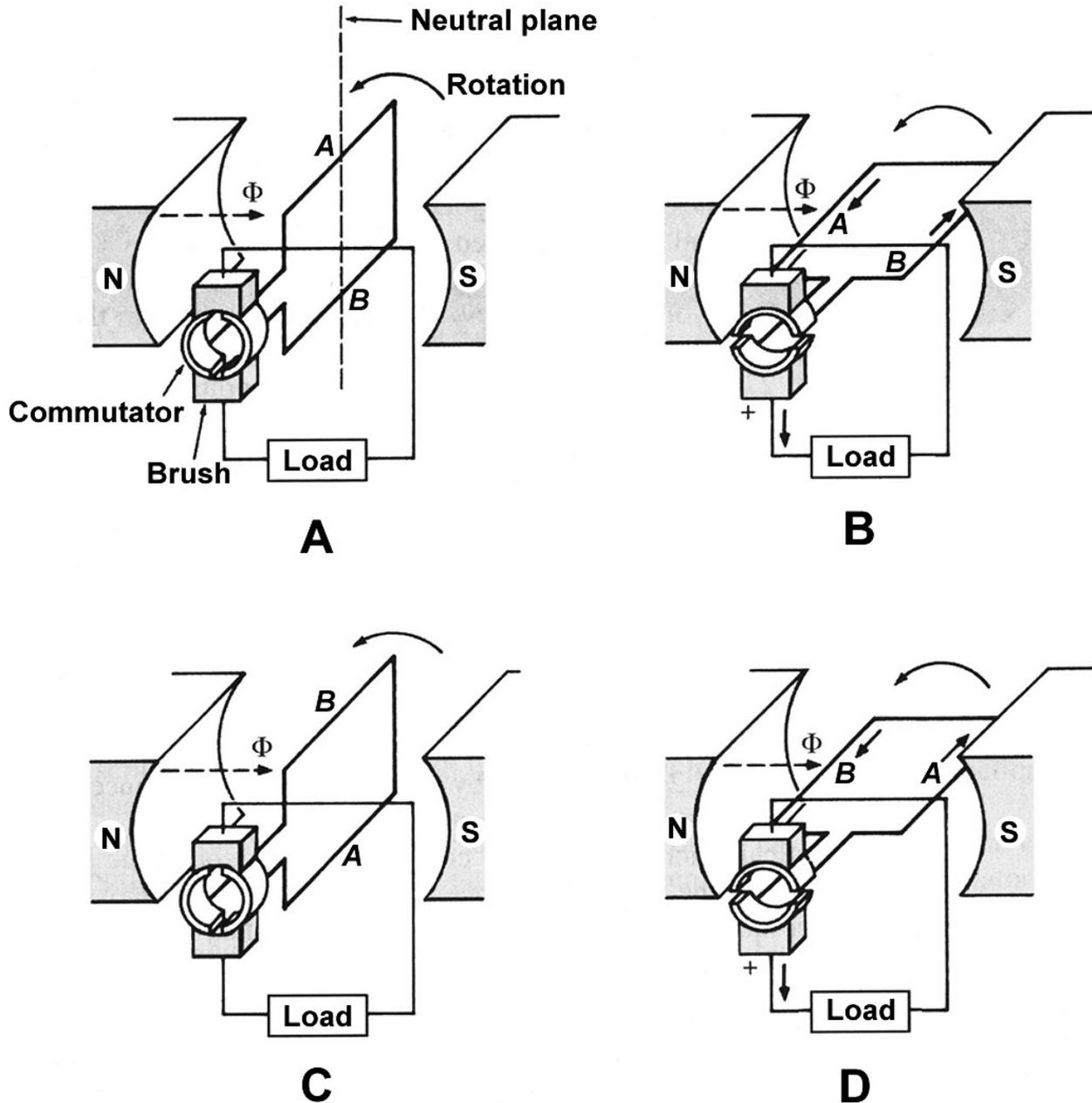
If choice D is selected set score to 1.

70. The lengthening of a crack formed in the shell plating of a ship may be prevented by _____.

- (A) drilling a hole at each end of the crack
- (B) chipping out and slot welding the entire crack
- (C) cutting a square notch at each end of the crack
- (D) welding brackets across both ends of the crack

If choice A is selected set score to 1.

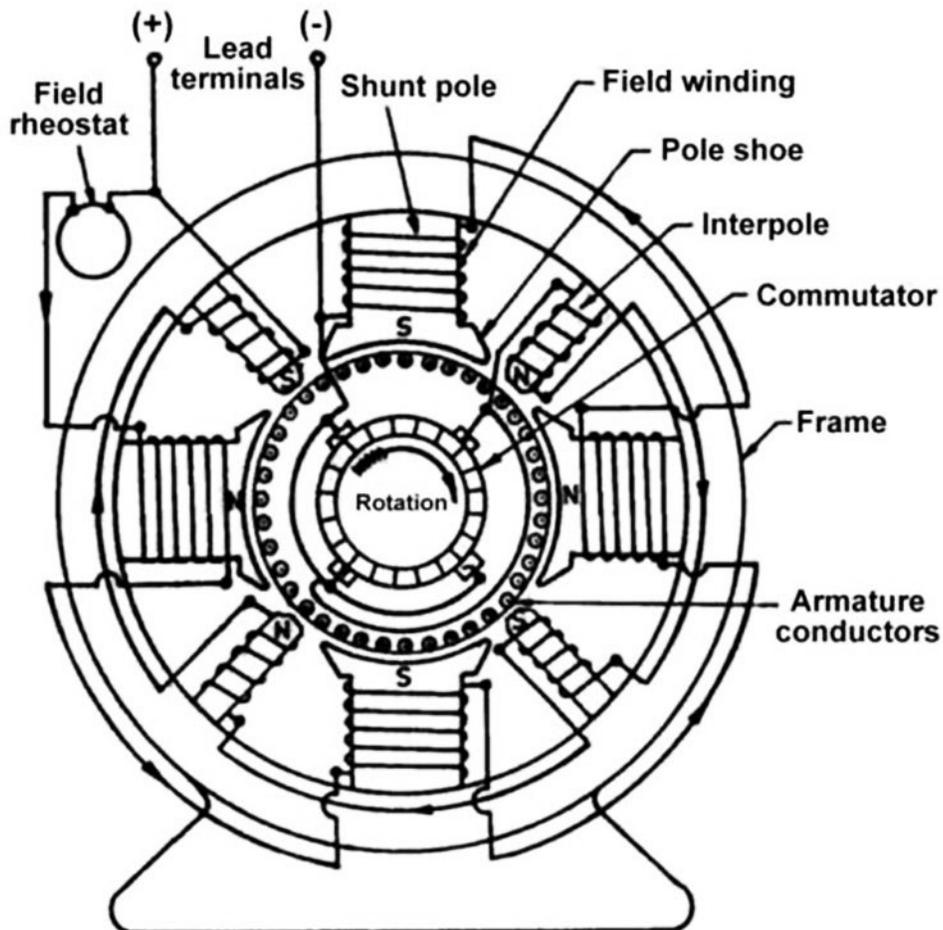
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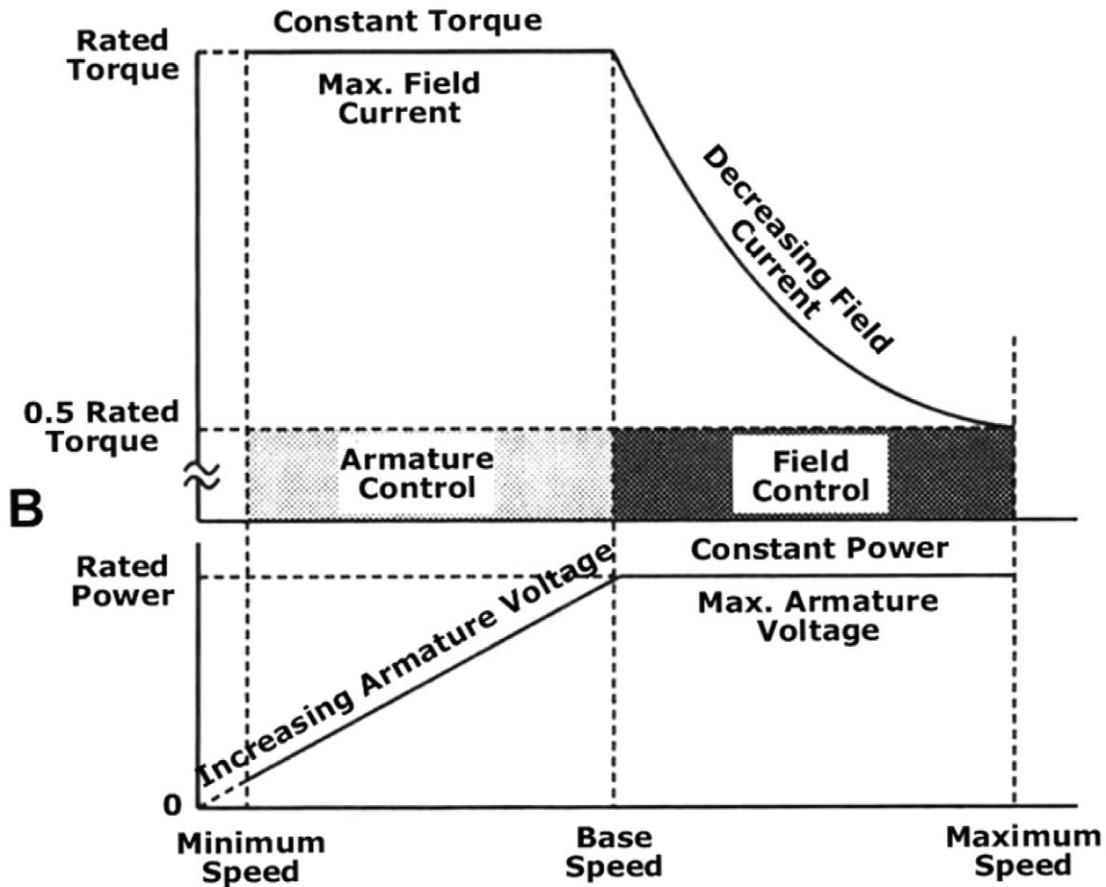
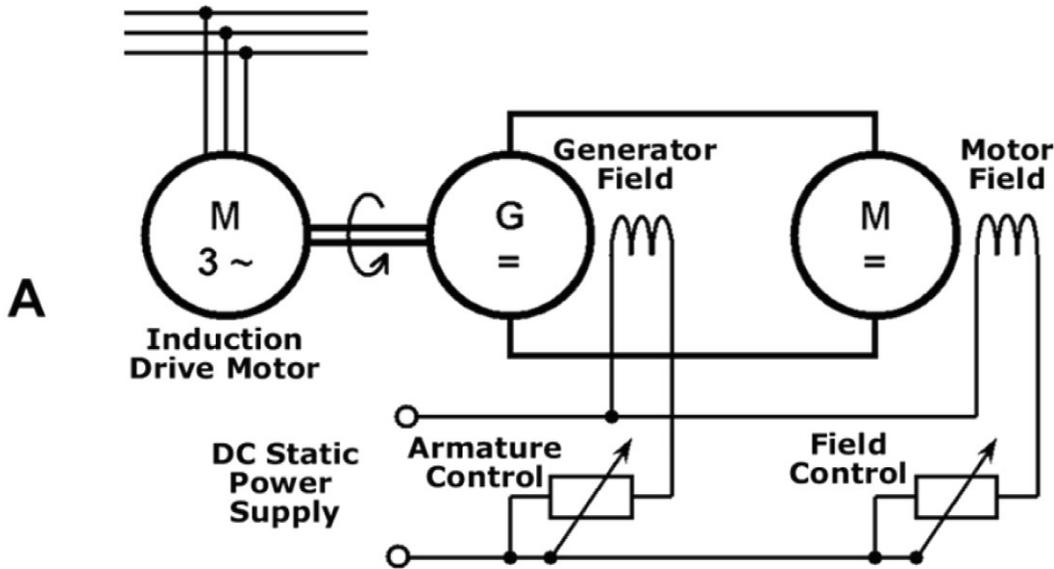
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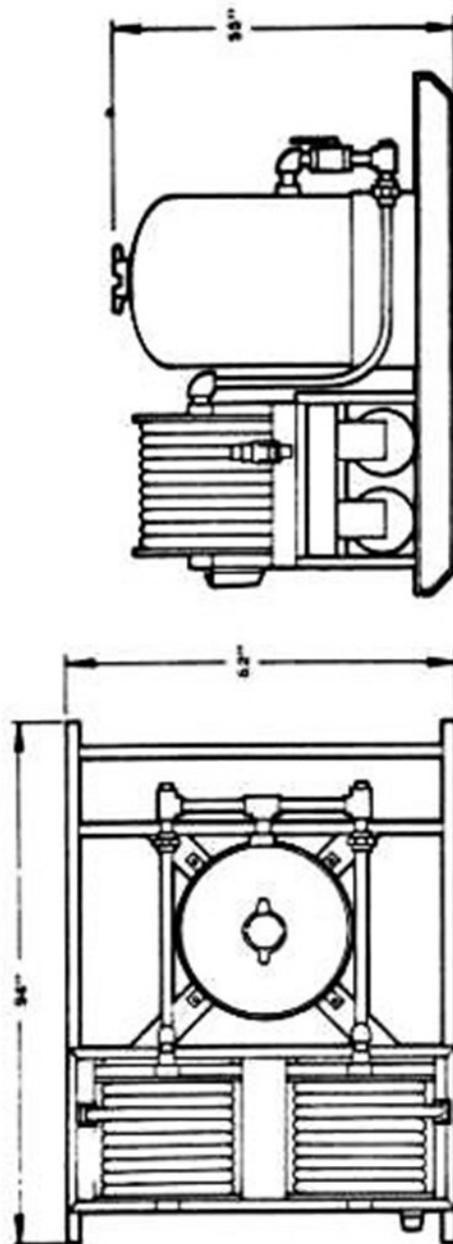
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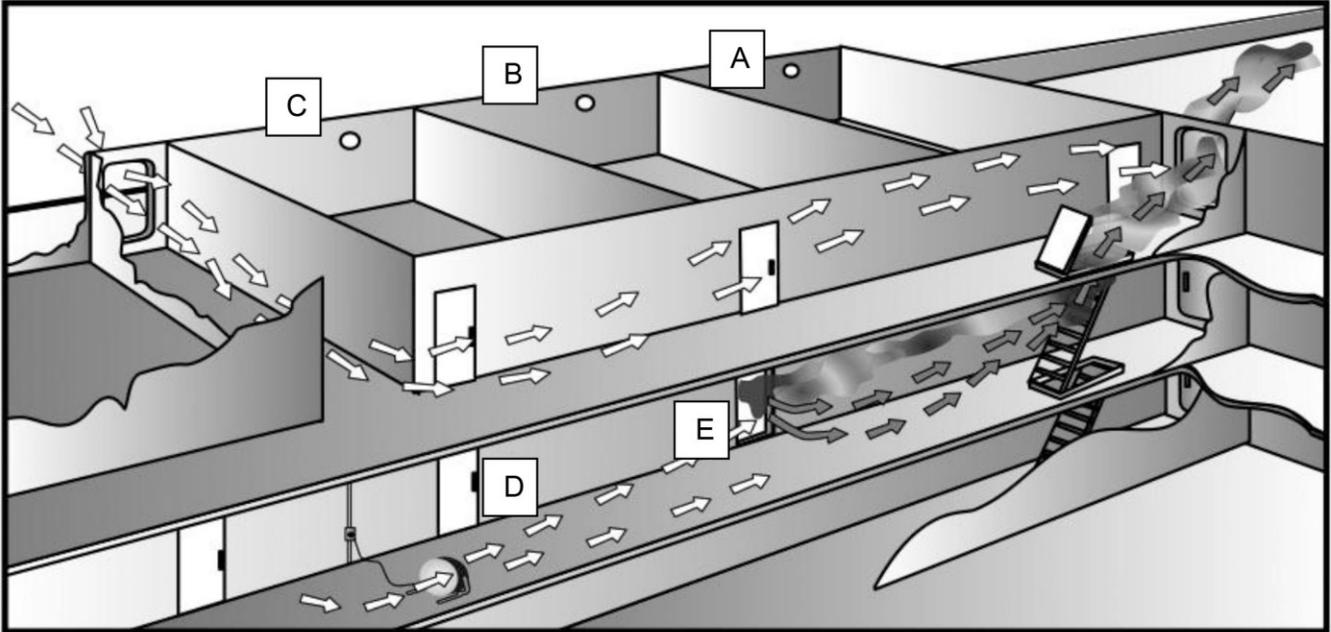


Figure 1

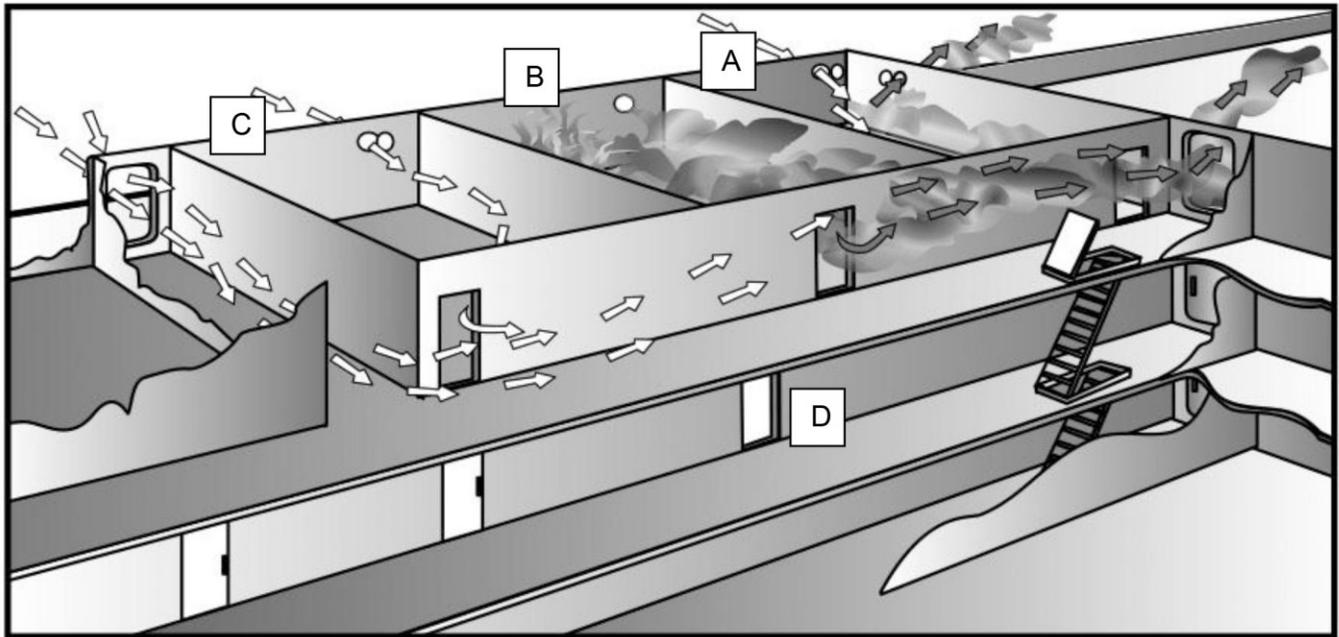


Figure 2

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