

**KIRBY MORGAN DIVE SYSTEMS, INC. ("KMDSI")**  
**HELMET AND BAND MASK OPERATOR / USER EXAM**

7-12-06

Name \_\_\_\_\_ Date \_\_\_\_\_

Location \_\_\_\_\_

- \_\_\_\_\_ 1) A correctly installed Oral Nasal Valve opens inward toward the face allowing breathing gas into the oral nasal, when the Defogger Valve (steady flow valve) is opened.
- a) True
  - b) False
- \_\_\_\_\_ 2) When checking the adjustment of the Demand Regulator, the intermediate supply pressure should be adjusted to be between \_\_\_\_\_ and \_\_\_\_\_ psig and there must be \_\_\_\_\_ inch to \_\_\_\_\_ inch of free travel in the Roller Lever before the gas flows.
- a) 80-110 and 3/32 – 5/16
  - b) 135-150 and 1/16 – 1/8
  - c) 110-168 and 1/16 – 3/32
  - d) 112-132 and 1/16 – 3/32
- \_\_\_\_\_ 3) When checking the Relief Valve setting, the Relief Valve should start slightly venting gas between \_\_\_\_\_ and \_\_\_\_\_ psig.
- a) 160-220
  - b) 180-200
  - c) 200-205
  - d) 130-150
  - e) 150-250
- \_\_\_\_\_ 4) When checking the Neck Clamp tension on the SL-17B, the Handle should be pulled out approximately \_\_\_\_\_ and should snap back solidly.
- a) 1 - 2 inches
  - b) 2 1/2 inch
  - c) 1/2 - 3/4 inch
  - d) 2 - 3 inches

- \_\_\_\_\_ 5) Carbon Dioxide build-up in a demand mode Helmet or Band Mask is likely if the user has?
- a) An improperly adjusted Demand Regulator
  - b) A loose fitting Headliner
  - c) A loose fitting Oral Nasal Mask
  - d) Poor Hearing
  - e) a, b, and c
- \_\_\_\_\_ 6) The Neck Clamp Stud collects water inside the Adjustment Block in the front section of the Clamp and requires routine cleaning and inspection for corrosion. This should be done at least monthly for clamps less than 5 years old and at least and \_\_\_\_\_ for clamps older than 5 years.
- a) Monthly
  - b) Weekly
  - c) Annually
  - d) Monthly & Weekly
- \_\_\_\_\_ 7) The One-Way Valve should be checked for proper operation by blowing and sucking in accordance with the Daily Checklist (Appendix A2.3). How often should this be done?
- a) Daily
  - b) Monthly
  - c) Bi-annually
  - d) Annually
- \_\_\_\_\_ 8) A loose Neck Dam or a hole in the Neck Dam may cause the regulator to free flow as air bubbles out of the neck dam.
- a) True
  - b) False
- \_\_\_\_\_ 9) When a KMDSI Helmet is depressurized and being prepared for storage, which of the following should be done?
- a) Back out on the Regulator Adjustment Knob
  - b) Cap or bag the Umbilical Inlet Adapter and Emergency Supply Valve
  - c) Remove and open the Earphone Covers for drying
  - d) Remove the Headliner for drying
  - e) All of the above
- \_\_\_\_\_ 10) During the Monthly Inspection (Appendix A2.2) of the Demand Regulator, the Diaphragm is inspected for signs of damage and deterioration by pulling and stretching while holding it to a light to identify pinholes or tears.
- a) True
  - b) False

- \_\_\_\_\_ 11) The Helmet Liner should be adjusted by adding or taking away foam and should always fit snug so if the diver's head moves the Helmet follows.
- a) True
  - b) False
- \_\_\_\_\_ 12) How often should the Maintenance / Repair / and use Log for a SuperLite Helmet or band mask be updated?
- a) Annually
  - b) Monthly
  - c) Each diving day that the equipment is used and anytime maintenance or repairs are made.
  - d) Semi-Monthly
- \_\_\_\_\_ 13) If a SuperLite Helmet or Band Mask has had an annual overhaul within the last 12 months, but has not been used for a month or two, what is the proper procedure for ensuring the Helmet is fully functional for upcoming dive operations?
- a) Perform the annual overhaul
  - b) Perform the semi-annual overhaul
  - c) Perform a monthly inspection
  - d) Perform the daily pre-dive check
  - e) Both c and d
- \_\_\_\_\_ 14) When diving a SuperLite Helmet or a Band Mask, under what condition(s) should a fully functional Emergency Gas System (Bailout Cylinder and First Stage) be incorporated?
- a) When diving to depths deeper than 16 feet (1.5 ata)
  - b) When no stand-by diver is available
  - c) When diving deeper than 66 feet (3 ata)
  - d) At all times
- \_\_\_\_\_ 15) The Oral Nasal Mask, Diaphragm, and Regulator Body in KMDSI Helmets and Band Masks are the main breathing cavity that the diver inhales and exhales into. These items should be cleaned and sanitized to help eliminate germs....
- a) Weekly
  - b) Monthly
  - c) Daily and/or between each user
  - d) Yearly

- \_\_\_\_\_ 16) During a dive, when should the diver check the Demand Regulator to ensure the Regulator is properly adjusted for depth and supply pressure?
- a) On the surface prior to descent
  - b) On the bottom
  - c) During major depth changes, 25 feet or greater
  - d) a, b, and c
- \_\_\_\_\_ 17) The use of the Safety Pin on the SL-17A/B yoke assembly is optional and does not have to be used by experienced divers.
- a) True
  - b) False
- \_\_\_\_\_ 18) The First Stage Regulator on the EGS should always...
- a) Be of good quality and maintained as recommended by the manufacturer
  - b) Have an intermediate supply pressure set between 135-165 psig o.b.
  - c) Have gas supplied (lined up) from the Emergency Gas Cylinder prior to entering the water
  - d) Have the Relief Valve set to relieve between 180-200 psig
  - e) All of the above
- \_\_\_\_\_ 19) A tight fitting Neck Dam ...
- a) Poses no problems
  - b) Can restrict blood flow by restricting the carotid artery
  - c) Can cause a restriction in breathing
  - d) Both b and c
- \_\_\_\_\_ 20) Most 1<sup>st</sup> stage Regulators will fill with water if the EGS Cylinder Valve is not open allowing the internals of the Regulator to be pressurized with breathing gas.
- a) True
  - b) False
- \_\_\_\_\_ 21) The main purpose of the First Stage Over-Pressure Relief Valve is to prevent the EGS hose from rupturing in the event the First Stage develops a high-pressure creep.
- a) True
  - b) False

- \_\_\_\_\_ 22) If a submersible pressure gauge is not installed on the EGS, how often should the cylinder pressure be checked with a portable gauge to ensure the EGS is fully charged?
- a) Daily
  - b) Prior to each dive
  - c) Weekly
  - d) Monthly
- \_\_\_\_\_ 23) The quickest and easiest way to find or determine if the Helmet and EGS gas systems have any leaks is to....
- a) Listen carefully
  - b) Feel for leaks
  - c) Use soapy water
  - d) Secure the gas source after pressurizing the helmet and EGS system and let stand for several hours to see if the pressure drops off on the gauges.
- \_\_\_\_\_ 24) Face Port Fasteners should only be tightened using an inch/pound torque wrench to 12 inch pounds.
- a) True
  - b) False