

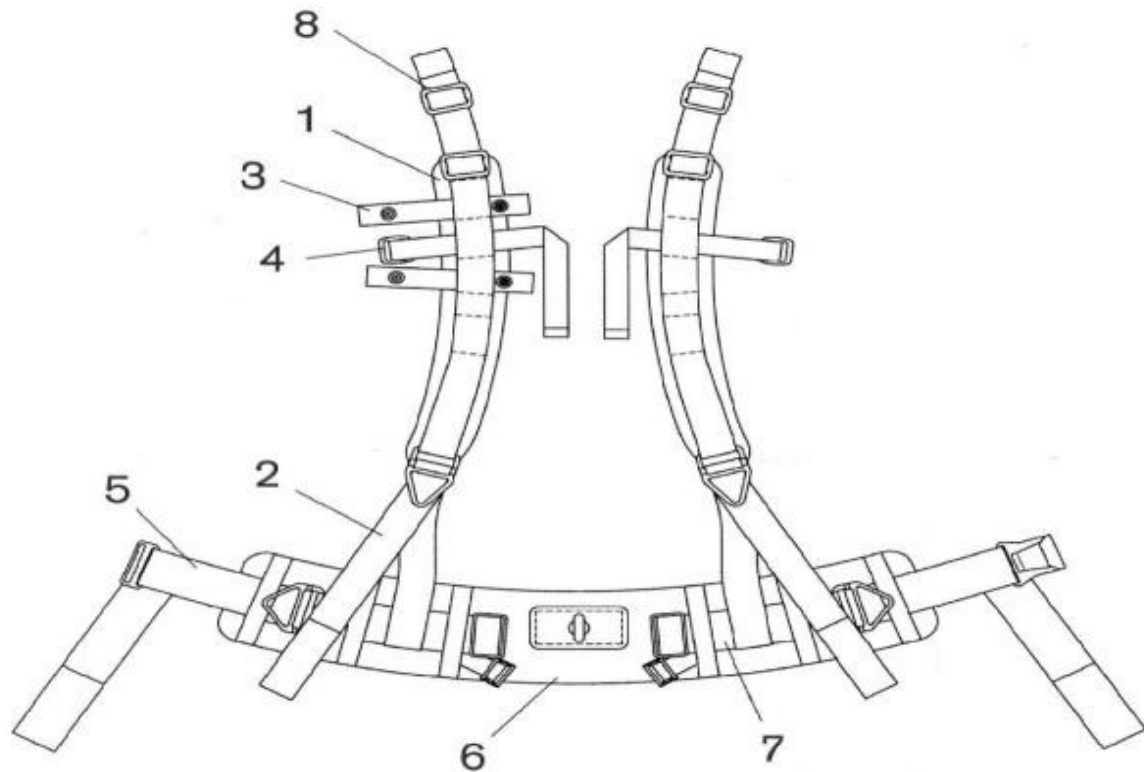
**2023 Kansas Shoot-out Mine Rescue Competition**  
**Hutchinson, Kansas**  
**Written Test – BG-4**

Name: \_\_\_\_\_ Draw No.: \_\_\_\_\_

1. A \_\_\_\_\_ pressure leak could be caused by a leakage in or at device components.  
**A. Negative**  
**B. Low**  
**C. Positive**
2. Polycarbonate or \_\_\_\_\_ lenses can be used in the mask.  
**A. Carbonate**  
**B. Flexible**  
**C. Plexiglas**
3. Only oxygen (medical grade or better) with \_\_\_\_\_ purity is to be used to fill the BG-4 oxygen cylinders.  
**A. 99.5%**  
**B. >99.5%**  
**C. 98%**
4. The maximum temperature of the air used to dry parts should not go above \_\_\_\_\_ degree C (140 degree F).  
**A. 60**  
**B. 90**  
**C. 70**
5. The BG-4 is \_\_\_\_\_ for use at temperatures above -5 degree C (23 degree F).  
**A. Suitable**  
**B. Approved**  
**C. Warranted**
6. Remove the Tally Key to \_\_\_\_\_ the motion sensor.  
**A. Operate**  
**B. Deactivate**  
**C. Activate**

7. The pressure relief valve is designed to open when the pressure within the breathing circuit is between \_\_\_\_\_ and \_\_\_\_\_ millimeters (+2 mbar and +5 mbar) of pressure measured on the water gage.
- A. +20 and +50**
  - B. +10 and +60**
  - C. -20 and -50**
8. During the positive pressure leak test, the pressure change within 1 minute must be \_\_\_\_\_ than 1 mbar.
- A. Equal to**
  - B. Lower**
  - C. Greater**
9. A steel cylinder is full at \_\_\_\_\_ psi when a + is stamped at hydro test.
- A. 2850**
  - B. 2600**
  - C. 3135**
10. The drain valve should not open at less than \_\_\_\_\_ mbar.
- A. 10**
  - B. 20**
  - C. 15**

## Harness Assembly



No.	Designation	No.	Designation
1	Shoulder Pad Assembly	5	Adjusting Belt Assembly
2	_____ Adjusting Strap (11)	6	Waist _____ (14)
3	Hose _____ (12)	7	Belt Assembly
4	_____ Strap Harness (13)	8	_____ (15)

**(11)**  
A. Chest  
**B. Shoulder**  
C. Waist

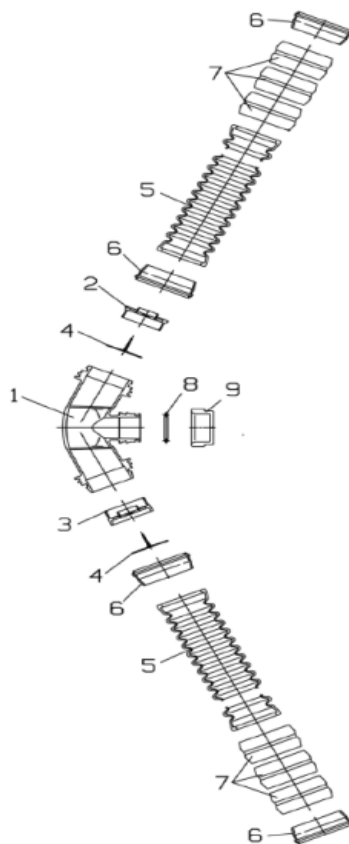
**(12)**  
**A. Clip**  
B. Strap  
C. Buckle

**(13)**  
A. Shoulder  
B. Sentinel  
**C. Hose**

**(14)**  
A. Strap  
B. Harness  
**C. Belt**

**(15)**  
A. Clip  
**B. Buckle**  
C. Clamp

Breathing Hose Assembly



No.	Designation	No.	Designation
1	_____ (16)	6	Bayonet Ring
2	Inhalation Valve Seat	7	_____ rings (18)
3	Exhalation Valve Seat	8	Toroidal Sealing _____ (19)
4	_____ Disc (17)	9	Sealing _____ (20)
5	Corrugated Hose		

- (16)  
A. Coupling  
B. Connector  
C. Tube

- (17)  
A. Burst  
B. Valve  
C. Pressure

- (18)  
A. Sealing  
B. Hose  
C. Anti-Crush

- (19)  
A. Ring  
B. Cap  
C. Plug

- (20)  
A. Plug  
B. Valve  
C. Cap