**2021 Worksheet # 5**

**Valves:**

**Station Outlets / Inlets:**

**Manufactured Assemblies:**

**Pages:**

1. **– 50**

1. A shutoff valve shall be placed at the immediate connection of each \_\_\_\_\_\_\_\_ system to the distribution piping system. What is the name given to the valve?

 a. Source

 b. Isolation

 c. Main

 d. Supply

2. A shutoff valve shall be provided in the supply line when the source valve is not accessible from within the building being served. What is the name given to this valve \_\_\_\_\_\_\_\_\_\_\_\_ ?

 a. Service

 b. Supply

 c. Main

 d. Zone

3. All valves except valves zone valve box assemblies shall be secured by any of the following means \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 a. Located in secure areas

 b. Located above ceiling, but remaining accessible and not obstructed

 c. Locked or latched in their operating positions

 d. Any of the above

4. Immediately outside each Category 1 space and anesthetizing location of moderate sedation, deep sedation, or general anesthesia there shall be located a (n) \_\_\_\_\_\_\_\_\_\_\_\_\_ in each medical gas, or vacuum line or both.

 a. Fire extinguisher

 b. Relief valve

 c. Zone valve

 d. Area alarm

5. In-line check valves shall not have threaded connections but shall have\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 a. Brazed extensions

 b. Threaded purge port

 c. In-line serviceability

 d. All of the above

6. New or replacement shutoff valves for medical gas pressure piping systems shall be permitted to be any type as long as they meet the following: \_\_\_\_\_\_\_\_\_\_\_\_.

 a. They have a minimum CV factor

 b. Quarter turn to off

 c. Constructed of material suitable for the service

 d. All of the above

7. Service valve shall be placed in the branch piping prior to any \_\_\_\_\_\_\_\_\_\_\_\_\_\_ on that branch.

 a. In line valve

 b. Zone valve

 c. Source valve

 d. Valves for future

8. Shutoff valves for positive pressure gases shall \_\_\_\_\_\_\_\_\_\_\_\_\_.

 a. Provided with copper tube extensions for brazing

 b. Permit in-line serviceability

 c. be cleaned for oxygen service by the manufacturer

 d. All of the above

9. The main line valve shall be located on which side of the source valve, when the main line valve enters the building.

 a. Downstream of the source valve

 b. Facility side of the source valve

 c. Upstream of the source valve

 d. Main line valve upstream of the service valve

10. There shall be a zone valve immediately outside of anesthetizing location of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

 a. Moderate sedation

 b. Deep sedation

 c. General anesthesia

 d. All or any of the above

11. What is the name given to the shutoff valve installed on all lateral branch piping from a main or riser \_\_\_\_\_\_\_\_\_\_\_?

 a. Zone

 b. Main

 c. Riser

 d. Service

12. What valve is permitted to be installed to isolate or shut off piping for servicing of individual rooms or areas?

 a. In line valve

 b. Riser valve

 c. Service valve

 d. Future valve

13.What valves shall be readily operable from a standing position in the corridor on the same floor they serve \_\_\_\_\_\_\_\_\_\_\_?

 a. Main

 b. Service

 c. Riser

 d. Zone

14. With the approval of the authority having jurisdiction, in what areas shall the shutoff valves be permitted to be secured to prevent inappropriate access?

 a. Psychiatric or pediatric

 b. Maternity

 c. Critical care

 d. Anesthetizing

15. Manufactured assemblies employing flexible hose shall have the minimum burst pressure of\_\_\_\_\_\_\_\_\_\_\_\_?

a. 1200 psig

b. 1500 psig

c. 1000 psig

d. None of the above

16. Station outlets that operate at a pressure in excess of \_\_\_\_\_\_\_\_ shall be either D.I.S.S connectors comply with 5.1.5.1.5 (4).

 a. 50 psi

 b. 60 psi

 c. 70 psi

 d. 80 psi

17. Station outlets/inlets of manufactured assemblies that employ hose or flexible connections to the piping system that are not fully and immediately accessible, shall use \_\_\_\_\_\_\_\_\_\_\_ connectors.

 a. quick coupler

b. D.I.S.S.

c. demand check

d. all of the above

18. The scale range of positive pressure analog indicators shall have the normal reading fall within the \_\_\_\_\_\_\_ of the total range.

 a. lower third

b. middle third

c. top third

d. none of the above

19. Pressure and vacuum indicators shall be readable from a standing position and shall be provided at the following locations?

 a. Adjacent to the main line initiating device.

b. At or in area alarm panel.

c. Station outlet / inlet side of zone valve

d. All the above.

20. To prevent injuring to the medical staff the station outlets that is operating with pressures of 200 psi and 300 psi shall be designed to prevent removable of the adapter until\_\_\_\_\_\_\_\_\_\_\_.

 a. The proper tools is available

b. The head Doctor say it is ok

c. The pressure has been relieved

d. The pressure has been balance

21. MGR assemblies shall connect to the \_\_\_\_\_\_ through \_\_\_\_\_\_\_that are brazed to the pipeline.

 a. Pipeline and fittings

b. Brazing by pipeline

c. Pipeline by brazing

d. Fittings by pipeline

22. The scale range of vacuum indicators shall be \_\_\_\_\_\_\_\_\_\_\_ gage HgV.

  a. 0 – 12”

  b. 0 – 29.9”

 c. 0 - 30”

 d. 0 - 30.9”

23. Where should Gas-specific demand check fitting to facilitate service testing or replacement shall be installed? That would be downstream of all source valves.

 a. Pressure indicators

 b. Zone valve indicators

 c. Riser valve indicators

 d. Area alarm panels

24. Openings in the MGR not occupied by station outlet/inlet shall be capped or plugged so that a special tool is required for removal.

a. Capped

b. Plugged

c. Brazed

d. Both a - b

25. Only one \_\_\_\_\_\_\_\_\_\_\_ shall be required for each branch off of a riser, regardless of how many zone valve boxes are installed on that lateral.

 a. riser valve

 b. service valve

 c. zone valve

\ d. source valve