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37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

National Inspection Testing and Certification Corporation

SM24

Medical Gas Inspector 2024 Recertification

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for National Inspection Testing and Certification Corporation SM24 , each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, SM24
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1 SINGLE CHOICE

According to NFPA 99, which grade of medical air is required for use in medical air systems supplying human respiration?

- ☐ A Medical air Grade A
- ☐ B Medical air Grade B
- ☐ C Medical air Grade C
- ☒ D Medical air Grade D

ANSWER D

WHY NFPA 99 specifies that medical air used for human respiration must meet the requirements of medical air Grade D, which is defined by the United States Pharmacopeia (USP) reference standards for medical air quality.

QUESTION 2 SINGLE CHOICE

During the standing pressure test of a medical gas pipeline, what is the minimum test pressure that must be held for a minimum of 24 hours?

- ☐ A 1.5 times the system working pressure
- ☐ B 100 psig
- ☒ C 150 psig
- ☐ D 200 psig

ANSWER C

WHY NFPA 99 requires that the standing pressure test be performed at 150 psig (or 1.5 times the system working pressure, whichever is greater) for a minimum duration of 24 hours.

QUESTION 3 SINGLE CHOICE

Which test is performed to detect cross-connections between medical gas systems during the initial verification process?

- ☐ A Standing pressure test
- ☒ B Cross-connection test
- ☐ C Purge test
- ☐ D Pressure decay test

ANSWER B

WHY The cross-connection test is specifically performed during initial verification to ensure that there are no unintended connections between different medical gas systems (e.g., oxygen piped to a medical air outlet). This is a critical safety test before any system is placed in service.

QUESTION 4 SINGLE CHOICE

What is the minimum height above the floor at which medical gas outlet fittings (other than vacuum) must be installed to prevent physical damage?

- ☐ A 24 inches
- ☐ B 36 inches
- ☒ C 48 inches
- ☐ D 60 inches

ANSWER C

WHY NFPA 99 requires that medical gas outlet fittings (other than vacuum) be installed at least 48 inches above the floor to reduce the risk of physical damage and contamination.

QUESTION 5

SINGLE CHOICE

Which color is designated by NFPA 99 for the identification of medical oxygen piping and outlets?

- ☐ A Yellow
- ☐ B Blue
- ☒ C Green
- ☐ D White

ANSWER C

WHY NFPA 99 designates green as the standard color for medical oxygen systems, used for piping labels, outlet faceplates, and related identification throughout the facility.

QUESTION 6

SINGLE CHOICE

For the initial pressure test of brazed medical gas piping, what test medium and duration are required by NFPA 99?

- ☐ A Nitrogen for 24 hours
- ☐ B Oxygen for 12 hours
- ☐ C Oil-free dry air for 24 hours
- ☒ D Nitrogen for 10 minutes

ANSWER D

WHY NFPA 99 requires that the initial pressure test of brazed medical gas piping be performed using oil-free dry nitrogen at the test pressure for a minimum of 10 minutes, to prevent ignition hazards during brazing and testing.

QUESTION 7 SINGLE CHOICE

What is the required minimum number of valves at the supply side of each medical gas manifold to permit maintenance while keeping the system operational?

- ☐ A One valve per cylinder
- ☒ B Two valves per header
- ☐ C Three valves per bank
- ☐ D One valve per zone valve box

ANSWER B

WHY NFPA 99 requires two valves at the supply side of each medical gas manifold header. This allows one side to be shut off for maintenance or cylinder change-out while the other side continues to supply the system without interruption.

QUESTION 8 SINGLE CHOICE

During the final operational verification test of a medical air system, which parameter must be verified at the outlet?

- ☒ A Dew point and particulate matter
- ☐ B Oxygen purity only
- ☐ C System pressure only
- ☐ D Flow rate only

ANSWER A

WHY The final operational verification of a medical air system requires confirmation of proper pressure and flow at outlets, as well as verification of dew point, particulate matter, and gaseous contamination to ensure the air meets USP medical air Grade D quality requirements.

QUESTION 9

SINGLE CHOICE

According to NFPA 99, medical air for human respiration must be produced from which source?

- ☒ **A** Compressed ambient air drawn through a medical air compressor
- ☐ **B** Concentrated oxygen blended with nitrogen
- ☐ **C** Liquid oxygen vaporized through a hospital manifold
- ☐ **D** Anhydrous medical-grade oxygen enriched air

ANSWER A

WHY NFPA 99 requires medical air intended for human respiration to be produced by a medical air compressor drawing from the ambient atmosphere. It must meet the United States Pharmacopeia (USP) medical air grade. Oxygen blending or vaporized liquid oxygen are not permitted as sources for medical air.