

PUZZLE
1138 - PRINCIPLES OF ANESTHESIA 1
UNIT I – ANESTHESIA MACHINE AND MEDICAL GAS SUPPLY
Anesthesia Machine Logic Puzzle: Faulty Gas Supply

Scenario:

Total Marks: 10 Marks

In an operating room, an anesthesia machine is equipped with two medical gas supplies: Oxygen (O₂) and Nitrous Oxide (N₂O). Each supply connects to the machine via a pipeline inlet. However, during a routine check before surgery, the anesthesia technician notices that one pipeline is disconnected, and the machine's fail-safe system has activated, cutting off the N₂O flow to prevent hypoxia. The machine has three inlet ports labeled A, B, and C, but only two are active (O₂ and N₂O). Port C is a dummy or unused port.

The following clues are true:

1. The O₂ supply is connected to either port A or port B, but not both.
2. If the N₂O supply is in port B, then port A is the disconnected one.
3. Port C is not carrying any medical gas supply.
4. Exactly one port is disconnected.
5. The disconnected port is not port C.

Question: Which port is connected to the O₂ supply, which to N₂O, and which is disconnected?

RUBRICS:

Criterion	Points
Key Elements	2 pts
Logical Steps	4 pts
Correct Solution	2 pts
Safety Insight	2 pts
Total	10 pts