**M¨v‡mi ag©**

M¨vm eY©bvi c«‡qvRbxq PjK:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **c«ZxK** | **GKK (**S.I **)** | **Zvrch©** |
| ZvcgvÎv | **T** | Kelvin (k) | M¨vmwUi ZvcgvÎv cwigvY |
| Pvc | **P** | Pascal (Pa) | cv‡Îi ‡`Iqv‡ji Dci M¨vmwUi av°v |
| AvqZb | **V** | m3 | M¨vmwU ‡h cv‡Î ivLv Zvi AvqZb |
| ‡gvj | **n** | mole | M¨vmwUi M«v‡g c«KvwkZ fi |

**Tricks:**

1. ZvcgvÎv memgqB ‡Kjwfb GK‡K ivL‡Z n‡e|
2. Dfq cv‡k GKB GK‡Ki gvb ivL‡Z n‡e|
3. memgqB M¨v‡mi Pvc I AvqZb wb‡q KvR Ki‡Z n‡e
4. M¨vm Qvov Ab¨ ‡Kv‡bv e¯‘ ‡ejy‡b \_vK‡j Zvi AvqZb ev` w`‡Z n‡e|

**GKK Conversation:**

Pv‡ci ‡¶‡Î (**P**)→:

|  |  |  |
| --- | --- | --- |
| **MKS(SI)** | **CGS** | **Lit-atm** |
| Pa/Nm-2 | Dyne/cm-2 | Atm |

1atm = 76cm(Hg) = 760mm(Hg).

1atm = 101325pa = 101.325KPa = 1.01325106 dyne

|  |  |
| --- | --- |
| mm= torr | atm=bar |

AvqZ‡bi ‡¶‡Î (**V**)→:

|  |  |  |
| --- | --- | --- |
| **MKS(SI)** | **CGS** | **Lit-atm** |
| m3 | cm3/cc | Liter |

**1L= 1dcm3 = 1000ml = 1000cm3**

**1KL = 1m3 = 103L=103dcm3=106mL**

|  |  |
| --- | --- |
| 1m3=1KL=1000L | 1mL=1cm3 |

|  |  |  |
| --- | --- | --- |
| **STP** | **NTP** | **SATP** |
| **P = 1atm** | **P = 101.325KPa** | **P = 101.325KPa** |
| **T = 273K** | **T = 273K** | **T = 250C/298K** |
| **V = 22.414L/22.4L** | **V = 24.04L** | **V = 24.5L** |

**hw` mgm¨vi g‡a¨ WvUv `yBevi ‡`Iqv \_v‡Kt**

|  |  |  |
| --- | --- | --- |
| **=** | **V =** AvqZb  **T =** ZvcgvÎv  **M =** AvbweK fi | **T =** ZvcgvÎv  **g =** cwigvYK…Z fi  **d =** NbZ¡  **=** ‡gvj msL¨v |

**hw` mgm¨vi g‡a¨ WvUv GKevi K‡i ‡`Iqv \_v‡Kt**

**M¨v‡mi Av`k© mgxKiY, PV=nRT [R = ‡gvjvi aªyeK|]**

**=** ‡gvj msL¨v**|**

|  |  |  |
| --- | --- | --- |
| **R = ‡gvjvi aªyeK|]** | | |
| **MKS(SI)** | **CGS** | **wjUvi evqygÛjxq** |
| **8.314****Jule.K-1.mol-1** | **8.314**107 **erg.K-1.mol-1** | **0.0821 L.atm.K-1.mol-1** |

**‡gvj msL¨v ‡ei Kivi c×wZ:**

**hw` fi ‡`Iqv \_v‡K, = , M¨v‡mi Av`k© mgxKiY, =**

**AYyi** **ev cigvYyi ‡¶‡Î, = AvqZb ‡`Iqv \_vK‡j, =**

|  |
| --- |
| **= Aby ev cigvYyi msL¨v, = H M¨v‡mi AvqZb** |

NbZ¡: ev®ú NbZ¡:

**= =**

**Wvë‡bi AvswkK Pvc m~Î,**

|  |  |
| --- | --- |
| **‡gvU Pvc, P = P1 + P2 + P3+..............**  **P = P1V1 + P2V2 + P3V3+..............** | **P = ‡gvU** Pvc  **V = ‡gvU** AvqZb  **P1 =** wbw`©ó As‡ki Pvc  **V1** = wbw`©ó As‡ki AvqZb |

**‡gvU Pvc AvqZ‡bi mv‡c‡¶, P =**

**AvswkK Pvc, P1 = P**  **‡gvj fMœvsk**

**‡gvj fMœvsk = Zvi M«vg AvbweK fi ‡gvU M«vg AvbweK fi**

**M«vnv‡gi e¨vcb m~Î,**

|  |  |
| --- | --- |
| **= = =** | **r = e¨vmva©**  **t = mgq**  **V =** AvqZb  **M =** AvbweK fi |

**eM©g~‡ji Mo eM©‡eM, CRMS =**

M¨v‡mi MwZkw³, **E = nRT**

**mgvß**