

nvBtWtCubK cxiZtZ mewR, dj l dj BZw` dmj Pftli gj bxwZ ntj v- wqwsZ cwi tetk MvtQi AZvek`Kxq c0qvRbxq Lv` vcr` vb cwbi gta` mieivn Kti 0xtj i ev c0wv= tKi tU, evj wZ ev tevZtj dmj Drcv` b Kiv|

nvBtWtCubK e`envi cxiZ

mvavi YZt `B Dcr`tq nvBtWtCubK m cxiZtZ dmj Drcv` b Kiv hvq|

(K) mAvj b cxiZ

(L) mAvj b ienxb cxiZ

nvBtWtCubK cxiZtZ Priv Drcv` tbi Kj vtKSkj

mvdj `RbKfvt nvBtWtCubK cxiZtZ Priv Drcv` tbi Dci wetkl , iazj w` tZ nq| Kvi Y G cxiZtZ Priv Drcv` b cjaZi cbP Priv Drcv` tbi mewfb0cxiZ AvtQ |

1| `uA eK Priv Drcv` b

2| bwi tKtj i Avtki , ovq Priv Drcv` b

K) mvbwtZ Priv Drcv` b

L) cwi= tKi ctU Priv Drcv` b

nvBtWtCubK cxiZtZ ivmqubK `eb %Zixi Kj vtKSkj

nvBtWtCubK cxiZi mvdj ` wfp Kti A`bKlv ivmqubK `eb `Zixi Dci Kv`RB ivmqubK `eb `Zixi mgq wetkl mZKZv Aeja`b Kitz nte| wbtge ivmqubK `eb `ZixtZ th mKj c0qvRb ivmqubK `e`Zv mn `Zixi mewfb0e avc , tj v ebDv Kiv ntj v|

th mKj ivmqubK Dcr` tbi c0qvRb Zvi cwi gvb (c0Z 1000 wj t cwbi Rb`)

| µngK bs | ivmqubK Dcr` vb | Dcr` tbi ivmqubK mstKZ | cwi gvY |
|---------|------------------------|--|----------|
| 1 | cUwkqvg nvBtWtRb dmtDU | KH ₂ PO ₄ | 270 M0g |
| 2 | cUwmqvg bvBtUU | KNO ₃ | 580 M0g |
| 3 | K`vj wmqvg bvBtUU | Ca (NO ₃) ₂ . 4H ₂ O | 1000 M0g |
| 4 | g`vMvtbmqvg mvj tDU | MgSO ₄ .7H ₂ O | 510 M0g |
| 5 | BwWUG Avqib | EDTA Iron | 80 M0g |
| 6 | g`v`wvR mvj tDU | MnSO ₄ .4H ₂ O | 6.10 M0g |
| 7 | ewi K GmW | H ₃ BO ₃ | 1.80 M0g |
| 8 | Kcvi mvj tDU | CuSO ₄ .5H ₂ O | 0.40 M0g |
| 9 | A`vgubqvg gwj e`UW | (NH ₄) ₆ Mo ₇ O ₂₄ .4H ₂ O | 0.38 M0g |
| 10 | wRsk mvj tDU | ZnSO ₄ . 7H ₂ O | 0.44 M0g |

Stock Solution A %Zix: 1000 M0g K`vj wmqvg bvBtUU Ges 80 M0g EDTA Iron tK cwi gvc Kti 10 wj t cwbtZ `exfy Kti Stock Solution A %Zix Kitz nte|

Stock Solution B %Zix : cUwkqvg nvBtWtRb dmtDU 270 M0g, cUwmqvg bvBtUU 580 M0g, g`vMvtbmqvg mvj tDU 510 M0g, g`v`wvR mvj tDU 6.10 M0g, ewi K GmW 1.80 M0g, Kcvi mvj tDU 0.40 M0g, A`vgubqvg

gwj etWU 0.38 M0g, wRsk mvj tdu 0.44 M0g D³ i vmvqubK `eb` wj tK GK mvt_ 10 wj Uvi cwbttZ `exfZ Kti Stock Solution B %Zix KitZ nte|

nvBtWicubK cxiZi Kvhcubj x

nvBtWicubK Pvlvev` cxiZtZ `vcbr ubgvb tKSkj

nvBtWicubK cxiZtZ dmj Drcv`tb `vcbr ubgvb GKiu iæZcY⁹elq| mvari bZt `vcbrv gta` itqtQ M0b-nvDR, c0wv÷K-nvDR, wfbvBj -nvDR, cwj -Uvtbj , BZ`w` | M0b nvDfRi gva`tg Avgiv mviv eQi th tKvb mgq dmj Drcv`b KitZ cwi | G Qvov Avgiv c0wv÷K-nvDR A_ev wfbvBj -nvDfRi ev cwj -Uvtbj I Pvlvev` KitZ cwi | `f cwi mti `vj vb evoxi Qv` , evi v`v ev Ab`vb` tLvj v RvqMvq GB cxiZtZ Pvlvev` Kiv hvq| Zte M0b-nvDR ev M0vm-nvDfR LiP Zj bvgj K tekx| Zte Drcw` Z dmtj i bMZgvb gv dmtj i Zj bvg AfbK fvj | Avgv` i t`tki AvM0x c0wvZkxj K.I.K c0wv÷K-nvDR `Zix Kti Kg LiP G cxiZtZ Pvlvev` KitZ cvti | nvBtWicubK cxiZtZ dmj Drcv`tbi Rb` ÷xtj i tu⁹ c0wv÷tki evj wZ, Ae`euZ c0wv÷tki tevZj , BZ`w` e`envi Kiv qvq| Zte tKvb cxiZtZ dmj Drcv`b Kiv nte Zvi Dci wbf⁹ Kti `vcbr `Zix KitZ nte| mAvj b I mAvj b wvxb Dfq cxiZtZ 0xtj i tu⁹ e`envi Kiv hvq| ÷xtj i tu⁹ e`envi i cte⁹tu⁹ Gi gvts mrv`v is w`tq c0j c w`tj fvj nq| dtj i vmvqubK `eb miwmi avZe c`vt`P ms`utk⁹AvmtZ cvtibv| tKvb Ae`vtZB gwiv Pv cov 0xtj i tu⁹ e`envi Kiv hvte bv| GKiu KvVi A_ev tj vvi tetAi Dci tu⁹ `vcbr Kiv thtZ cvti | AfbK mgq KvVi tetAi Dci ZvK Kti 2-3 w tu⁹ emvtbv thtZ cvti | Gt⁹tt⁹ me0tgeZvtKi MtQi AvKvi Abjvqx dmj thgb 0teix, tj Um, K`vcumKvg BZ`w` MvQ wbtP I gvtsi ZvtK Ges Dcti i ZvtK kmv ev UtgtUv MvQ j wvvtbv thtZ cvti | GB t⁹tt⁹ Vertical Pvlvev` i Rb` Af RvqMvq AwK dmj Drcv`b Kiv hvte| mvari bZt Non-circulating Ges Circulating Dfq cxiZtZ tu⁹ `vcbr Kti dmj Drcv`b Kiv m0e| ÷xtj i tu⁹ mvari bZt 18-24 tMR M`vj fvbvBwRs mxU 0vvi `Zix KitZ nq hvi `N`03 wgt I c0` 90 tmgv Ges D`PZvi 20-25 tmgv ntZ nte| mAvj b cxiZtZ KKRxU `vcrtbi Rb` tKvb cKvi tj vvi cvZ tu⁹ gvts e`envi KitZ nqbv| wKs` mAvj b wvxb cxiZtZ tu⁹ Dci t`tk 5 tmgv ev` ti tL tj vvi cvZ `vcbr KitZ nte| GB cvtZi Dci KKRxU `vKte Ges Rj xq `eb GB `tUi Dci `wvZ KKRxU i 5 tmgv bxtP `vKte| AZtci tu⁹ wtu⁹ GKiu tj vvi A_ev KvVi tdtgi Dci mgvfvte emvtZ nte|

mAvj b cxiZ (Circulating System) cxiZtZ M`vj fvbvBwRs Kiv tj vvi `Zix tu⁹ K GKiu Stand Gi Dci `vcbr Kiv nq, Ges tu⁹ wtu⁹ c0wv wvvtbv cvBtci mrvvth` GKiu Tank Gi mvt_ h⁹ Kiv nq| GB Tank t`tk cvt`ui mrvvth` i vmvqubK `eb` wgvkZ Rj xq Lv` `eb w`tb KgctY` 8 (AvU) N0Uv Tray tZ mAvj b Kiv nq| M`vj fvbvBwRs tj vvi tu⁹ Dci KKRxU gvts MtQi c0qvRbxq `iZi Abjvvti thgb- tj Um 20 x 20 tmt wgt UtgtUv 50 x 40 tmt wgt Ges ÷teix 30 x 30 tmt wgt `iZi MZ⁹KitZ nq| Dch⁹ eqtmi Pviv `uA (Sponge-block) mn H MtZ⁹ `vcbr KitZ nq| Pviv tivctbi ci U`vsk t`tk tu⁹ gta` Rj xq `eb cvt`ci mrvvth` c0Zw` b Kgct⁹ 8-10 N0Uv mAvj b KitZ nq| Gi gva`tg MtQi Aw` tRb mieivn ep⁹ Kiv nq| tu⁹ Kgct⁹ 6-8 tmgv cwb me mgq ivLtZ nte| mvari bZt c0Z 12-15 w` b Ašt Rj xq `eb tu⁹ thvM KitZ nq| GB cxiZtZ me0R Drcv`tb pH Ges EC gvTv dmtj i Pwv`vi gta` ivLtZ nq| mvari Yfvte nvBtWicubK cxiZtZ Drcv`tbi Rb` pH 5.8-6. 5 Gi gta` ivLtZ nq| hw` pH Gi gvTv 7.0 Gi Dcti nq Zte Avqib, g`vsmvbR, gwj etWbvgrn Ab`vb` gvBt`v wvDw⁹qU Afve cwj w⁹tt⁹ ntZ cvti | G t⁹tt⁹ nvBtWtKwi K GvW (HCl) A_ev dmdwi K GvW (HPO₄) ev HNO₃ w`tq tK KvswLZ gvTv ivLtZ nte| Avevi pH hw` 5.8 G tekx bxtP tbtg hvq Zte NaOH A_ev KOH w`tq pH wvqšY KitZ nte| EC Gi gva`tg Avgiv Rj xq `etY Lv` Dcv`tbi Dcv`wZi gvTv RvbtZ cwi | mvari bZt EC 1.5 - 2.5 ds/m Gi gta` ivLtZ nte| EC Gi gvTv hw` 2.5 ds/m Dcvti P⁹ hvq tm t⁹tt⁹ wei⁹ x cwb thvM KitZ nte| EC hw` 1.5 ds/m Gi bxtP P⁹ hvq Zte Nutrient solution `eb thvM Kti EC Gi gvTv 1.5 Gi Dci ivLtZ nte| c0Zw` b mKvj Ges wvKvj pH I EC wvUvti i mrvvth` cix⁹ Kti pH Ges EC mgšQ (Adjust) KitZ nte|

mAvj b wvxb cxiZ (Non-Circulating System) cxiZtZ dmj Drcv`tbi Rb` tKvb `e` wZK cvt`u ev cwb i Tank Gi c0qvRb cto bv| GB cxiZtZ tu⁹ c0wv÷tki evj wZ, Ae`euZ tevZj , BZ`w` e`envi Kti me0R, dj , dj Drcv`b Kiv thtZ cvti | fvj fvte cwi `vi Kiv evj wZ, tevZj wKsev tu⁹ Drcw` Z Pviv GKB cxiZtZ tvcbr KitZ nte| Pviv tivctbi cte⁹tevZj Rj xq `eb 0vvi Ggbfvte cb⁹KitZ nte hvZ KKRxU I Rj xq `etbi gvts

5-8 tmg RvqMv duKv _vtK | Zte evj wZ ev tevZtj Pvi v j vMtj tm tqtT evqyPj vPtj i Rb" AwZwi 3 3-4 wJ MZ©
i vLv ` i Kvi | GB c×wZtZ tKvb `e` jZK gUi , c vú ev cvBc e`envti i c qvRb nqbr | dtj AvMbx Pvi xMY mntRB
evoxi Avtkcvtki tLvj v `vtb, evi v`vq, `vj vb evoxi Qv`, BZ`w` `vtb G c×wZ e`envi Ki tZ crti |

thvMvthvMi wKvbr

1 | W. wR Gg G nwwj g, gL" eÁmbK KgRZP, tgeevBj bs 01715179366

2 | G tK Gg tmg g ti Rv gwj K, cávb eÁmbK KgRZP, tgeevBj bs 01711900256

