

mi; lxx%

(i) bl dk mi; lxx [kjk ty dks enq cukuse agkrk gā

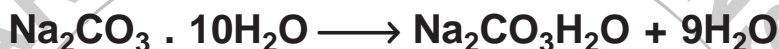
(ii) olf' lxx l kM ds: i eā

(iii) dkxt m/lxx eā

(iv) dlp m/lxx eā

izu 34- mRQyu fdls dgrsgā mRQyu inf'kz djustokys, d; lxxd dk uke fy/kā, d vfhfθ; k nslj l e>loā

mūj&ok qea [kyk NkM nsisij l kM; e dkclzV jok ty [kclj l Qn iwZea cny tkrk gā bl ds 10 v. lgeal s9 v. kpfudky dj ok; qāly eapyst krs gā l Qn vijñ 'kz l kmMj cp tkrk gā ft l sl kM; e dkclzV ekulglbM dgrsgā bl fθ; k dks mRQyu dgrsgā



mRQyu inf'kz djustokys; lxxd l kM; e dkclzV glkrk gā

izu 35- vfxu'ked; & }kjk vlx cākusdh fθ; k dks jkl k fud vfhfθ; k }kjk l e>loā

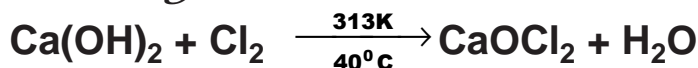
mūj&l kM; e clbZlclzV dk mi; lxx vfxu'ked; & lxx ea Hh fd; k tkrk gā vfxu'ked; & ea NaHCO<sub>3</sub>; k H<sub>2</sub>SO<sub>4</sub> jgrsgā vlx yxusij bl; & dh ?lqMh ij nlc Myk tkrk gā ft l l sNaHCO<sub>3</sub> rFlk H<sub>2</sub>SO<sub>4</sub> ij Lij l Ei dZea vldj CO<sub>2</sub> xš cukrsgā; g xš rt hl sclgj fudydj vlx dks cāknsh gā



izu 36- fojā d pwlZdš cuk; k tkrk gā bl dsnksē; jkl k fud xqk rFlk mi; lxx crloā

mūj&bl dk jkl k fud uke dšY'; e vllM lDylylbM glkrk gā bl dk l # CaOCl<sub>2</sub> glkrk gā bl s cyllpā i kmMj; k pws dk DylylbM Hh dgrsgā

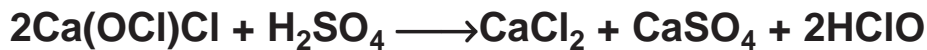
Bkl 'kjd cāspusij 313 K; k 40°C ij Dylylu xš i nlfgr djust ij fojā d pwlZcurk gā



jkl k fud xqk &%

(i); g l Qn pwlZgš ft l ea Dylylu tš h xāk glkrh gā

(ii); g ruq H<sub>2</sub>SO<sub>4</sub> dh vYi ek=k dsl kfk vfhfθ; k dj dšY'k; e l YQV/ glbM Dylyjd vEY rFlk vllM lt u nsk gā



bl izldj i hr vkm lt u uot kr vkm lt u gkrk gš vr%bl dk mi; lx foj d ds: i eaf d; k t krk gš

mi; lx &%

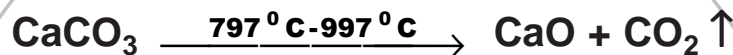
(i) bl dk mi; lx ty dš'lj djuseadlvk'kd ds: i eaf d; k t krk gš

(ii) dkxt rFlk di M m/lx eaf oja d ds: i eaf

izu 37- dyh&pwk dš scuk k t krk gš bl dsnksed; jkl k fud xqk rFlk mi Hlx crloš

mŭj&bl dk jkl k fud ule dš'k e vkm lbM(CaO) gš

t c pwki Rlj dš 1000°C l sde rki ij, d HvBheaxje fd; k t krk gš rkpwk i Rlj Vwdj dyh&pwk rFlk CO<sub>2</sub> cukrk gš



jkl k fud xqk &%

(i) ; g l Qn cjoklj inkFlZgš bl dk nš. kš 2597°C gkrk gš

(ii) ; g ty l si frf; kdj dš'k e glbM lbMrFlk Å"ekepr djrk gš



bl scqk pwk Hh dgrsgš bl i f; k dš Hjduk ; k i hr pws dš Hjdh pwk dgk t krk gš

jkl k fud xqk &%

(i) l heš m/lx eaf

(ii) Gylfpx i kmŭj cukuseaf

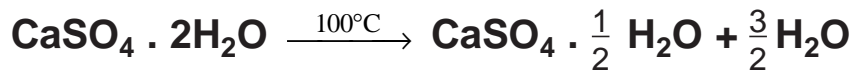
(iii) dlp dsmŭknu eaf

izu 38- IyklVj vkm i sjl dš scuk k t krk gš bl dsnksed; jkl k fud xqk rFlk mi; lx crloš

mŭj&bl dk jkl k fud ule dš'k e l YQV vèg lbM gš ft l dk l # CaSO<sub>4</sub> ·  $\frac{1}{2}$  H<sub>2</sub>O gkrk gš

bl svèž y; k t r dš'k e l YQV dgrsgš bl sl ŭki eaf P.O.P dgk t krk gš

ft l e dš blikr dscjru eaf 100°C rki ij xje djusij ; g ty dš  $\frac{1}{2}$  v. k y k dš R k x dj IyklVj vkm i sjl curk gš



*jkl k fud xgk &%*

(i) ;g , d l Qn pwlZgA

(ii) t y dsl kfk feydj ;g dMk rFk fNnz q r cu t lrk gA  
mi ; kx&%

(i) 'kV; fpfdRl k eaHh gfMAM; la dls t kMused

(ii) efrZ kadk l lpk cukused

(iii) vfxujlekd inkfIZcukused

*izu 39- fuEu ds d kj. k crkx&*

(i) ihry rFk rkcs ds cjru ea ngh rFk [kVs inkfIZD; la ughaj / kuk  
pkfg; |

mUkj& ngh rFk [kVs inkfIZk ea vEy gkrk gA vEy ekkv lal svfHfO; k dj yo. k  
rFkH<sub>2</sub> xS cukrsgA ft l l sinkfIZ / kus; kV; ughajgrk gA l kfk gh ngh  
, oa [kVs inkfIZk dls rkcs ds cjru la ea j / lk t k xk rks vEy dh fO; k ds  
d kj. k cjru l fMfjr gk t k xkA

(ii) vEy dk t ylt foy; u fo / q dk pkyu D; la djrk gS

mUkj& vEy t y ea?kydj eku , oa\_ . k dk fuekZk djrk gS



(iii) 'kjd gkbMdykfjd xS fyVel i= dk jax D; la ughacnyrh gS

mUkj& 'kjd gkbMdykfjd xS eagkbM u vk u (H<sup>+</sup>) ughajgrk gA bl fy, ;g  
vEylt vftky{k k i zn' kZ ugha djrk gA ft l ds d kj. k fyVel i= ds jax  
dls ughacnyrh gA

(iv) vkl for t y ea fo / q dk pkyu D; la ughagrkc fy d o'WZt y eagkrk gS

mUkj& vkl for t y ea dkbZ vk fud ; kfxd foyS ughagrA ft l ds d kj. k ;s  
vk ula ea fo?kVr ughagrsgA o'WZt y ok qaly l sgkrsgg Hfe ij fxjrs  
l e; ok q ds vEylt xS a CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>2</sub> br, kn dls ?kyk nrk gA  
ft l l sfotHlu izd kj ds vEy Oe 'k% dlcZud vEy (H<sub>2</sub>CO<sub>3</sub>), l yD; jil vEy  
(H<sub>2</sub>SO<sub>3</sub>), ulbVl vEy (HNO<sub>2</sub>) ; kulbfVel vEy (HNO<sub>3</sub>) cukrsgA ; svEy  
vk ula ea fo?kVr gkrsgA bl fy, o'WZt y fo / q dk pkyu djrsgA

(v) *ty dh vuqfLFkr eavEY dk Q ogkj vEYh D; lauglagkrk |*

*mUkj&vEY doy ty dhmiFLFkr eagbMtt u vk; u mli lu djrsgA glbMtt u  
vk; u dhmiFLFkr dsdkj. k vEYh dk Q ogkj vEYh glrk gA vr%ty  
dh vuqfLFkr eagbMtt u vk; u ughacura bl dkj. k vEY viuk vEYh  
Q ogkj ughadjrkA*

*izu 40- rkt snik dspH eku 6 glrk gA ngh cu t kusij bl dspH eku ead; k  
ifjorzi glxk |*

*mUkj&ngheaySDVd vEY glrk gA vFLZ~tc nuk l sngh cu t krk gSrk og  
vfekd vEYh gkst krk gA bl fy, nrk pH dk eku 6 l sde gkst k xkA*

*izu 41- , d Xokyk rkt snik eafkMk csda l lMk feykrk gA*

(a) *rkt knik dspH eku dks 6 l scny dj fLkMk {lkjh D; kacuk nrk gS |*

(b) *bl nuk dks ngh cuuseavfekd l e; D; la yxrk gS |*

*mUkj&(a) nuk eacsdax l lMk feyk dj {lkjh cukfn; k t krk gA rkfd nuk vfekd  
l e; rd jg l dA vFLZ~nuk QVsugha nuk QVus dk rkA; ZgSnuk  
dk [KVvk gkst kuka*

(b), *d snik eangh cuuseavfekd l e; bl fy, yxrk gSfd {lkjh nuk igys  
mnkl hu glrk gSrk ngh curk gA vr%nuk dsySDVd vEY dks igys  
ml eamiFLFkr {lkj dks mnkl hu djuk glrk gSrk ngh curk gA*

*izu 42- vki dks rhu ij[kufy; k nhxbZgA bl eal s, d eavkl for ty, oa'kk  
nkeal s, d eavEYh foy; u rFkknjse {lkjh foy; u gA ; fn vki dks  
doy yky fyVel i= fn; k t krk gSrk vki i& sd ij[kuyheaj[kx; s  
inkFLZdh igpku dS s djxs |*

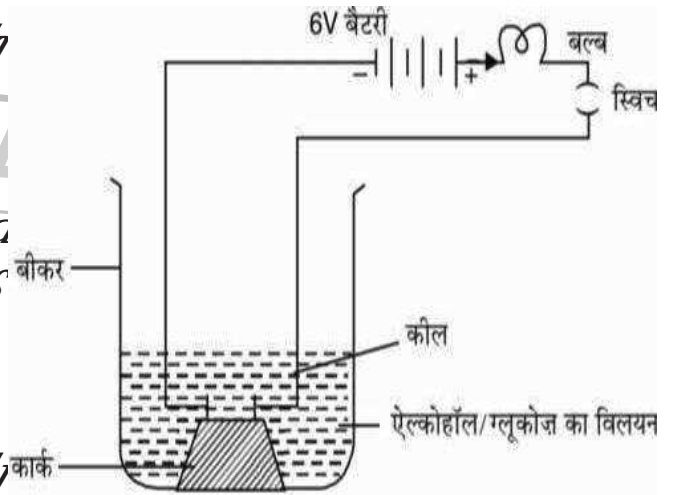
*mUkj&yky fyVel i= dks ckjh&ckjh l s rhu ij[kufy; lae Myrs gA t k  
foy; u yky fyVel i= dks ulyk dj nrk gA og {lkjh foy; u gA  
vc ulykgg fyVel i= dks ckjh&ckjh l s'kknksij[kufy; lae Myrs gA  
t k foy; u ulyk fyVel i= dks yky dj nrk gA og vEYh foy; u gA  
'kk cpk foy; u vkl for ty gA bl eayky, oauhysfyVel i= ij  
dkbZiZko ugha iMrk gA*



izu 43- , Ydgy , oaxvkt t s; kxdl e Hh glbMt u gksg ydu budkoxlZj. kvEy dhrjg ughgkrg , d fO; kdyki }kjb l sl kcr dja

mUj&, Ydgy , oaxvkt ty ea?lyusij glbMt u vk ula(H<sup>+</sup>) ds: i ea vFlZ~; s vk ula ea fo?kVr ughgkrg bl fy, buds?ky fo/q dk pkyu ughdjrsg

bl sl kcr djus ds fy, fp=kud k mi dj. kxdl t k; k t krg chl ea vYdgy dk?ky yrg bl ea fo/q èkjk i nkr dh t krg ge i krgsf cYc ughat yrk gl bl l sfl) gkrgs fd , Ydgy dk?ky fo/q dk pkyu ughdjrsg



Page No. 20, Fig. 2.2

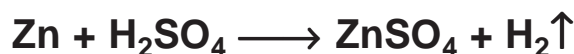
ge chl eaXvkt dk?ky ysl iz kx dksngjrgs cYc fQj Hh ugha t yrk gl bl l sfl) gkrgsf Xvkt

dk?ky Hh fo/q dk pkyu ughdjrsg vr%, Ydgy rFlk Xvkt t s; kxdl e glbMt u gksg Hh budkoxlZj. k vEy dh rjg ughgkrg

izu 44- D; k gkrgst c&%

- ruql Y; fjd vEy dh vFlO; k t Lrk l sgkrg
- rugglbMdykfjd vEy dh vFlO; k exulf'k e l sgkrg
- ruql Y; fjd vEy dh vFlO; k, Y; fefu; e l sgkrg
- rugglbMdykfjd vEy dh vFlO; k ylgk l sgkrg
- ruql Y; fjd vEy eaBkl l kM; e dlchV feyrgs
- ruql Y; fjd vEy/ nkskj ft al ds l kFlk vFlO; k djrg

mUj&(i) ruql Y; fjd vEy dh vFlO; k t Lrk l s dj; h t krgs rks ft al l YQV rFlk glbMt u xS curkgs



- rugglbMdykfjd vEy dh vFlO; k t c exulf'k e l s dj; h t krgs rks exulf'k e DykjbM rFlk glbMt u xS curkgs

