

# c0tYi DtbYl I weeZ0 kxl R tmwgbvi mfvcwZi mPbv e<sup>3</sup>e

## ARq ivq

Avtj vPbvq AskM0hYKvi x cwiEZeM0Ges mpxgEj x,

wk0v Avt0 vj b AvtqwiRZ 0c0tYi DtbYl I weeZ00 kxl R AvRtKi tmwgbvti Avcbvt0 i AvS0i K 0MZ Rv0vB| GB Avtj vPbv mfvi AvtqvRtbi tc0tb tQvE cUfmg itqtQ|

GK| Avcbvi v Rv0bb th weeZ0evt0 i RbK Pvj m Wvi DBb 1809 mtj i 12B tde0qvi xtZ RbM0hY Kti wQ0j b| Avi Zwi mvov RvM0t0v M0S 0 Origin of Species 0 c0k0wkZ nq 1859 mtj i b0f0af gv0m| mvov wetk| 12B tde0qvi x Zwi LuU weAvbx I Ab0p0Urm0yng0tj Wvi DBb w0 em wnt0m0e cwij Z nq| Avgvt0 i B00Q wQj H w0 emU0tZ GB tmwgbvi wU0i Ab0p0t0bi ga0 w0 tq Avrfe0w03evt0 i c\_00 kR0tK k0v Rv0v0v, wK0S0 b0v0v Kvi 0Y tmU0 m0e nq w0|

0B| Avgvt0 i b0v0v Kv0Ri mnt0hvMx m0Mv0 0gy03gbv00i 0Rb m0m0, hviv, wk0v Avt0 vj b g00Ai I m0m0, c0tYi weKvk Kx f0te NUj Ges weeZ0bi c\_00 at0i c0YxRM0tZ c0Rw0Zi D00e Ges gv0t0i Avwef0i w0tq m0c00Z 0U cy0K wj 0L0Qb hv AvR0tKi tmwgbvti i mvt\_00 m0w0K| cy0K 0U nj t

1. gnwetk|c0Y I ep0xgEvi t0utR 0 AvrfwRr ivq I dwi0 Avntg0
2. weeZ0bi c\_00 at0i 0 eb0v Avntg0

0U eB0B c0Kvk Kti 00 Aemi 0 bvtgi c0Kvk0v m00wU|

GB tmwgbvi Ab0p0t0bi Avi GKwU c00Qb0eKvi Y nj c0tYi D00e I weeZ00 w0l q w0tq Avtj vP0vi ga0 w0 tq Avgiv GB cy0K 0U0i mvt\_00 Avcbvt0 i cw0 Pq Kwi 0q w0 0Z P0B| Avgiv g0b Kwi GB 0U cy0K0i ga0 w0 tq c0tYi Dtb0i I RvUj I 0p i nm0\_0tj v Ges w0y0eZ0evt0 i A00b0h0Z K\_0v\_0tj v Ges Gi eZ0v0 ^e00w0bK Ae0v0 mvavi Y ep0xgvb cv0t0Ki Kv0Q mnR I mj wj Z fvl vq Z0j ai v n0t0tQ|

cy0K 0U Avgvt0 i nvtZ G0t0tQ tde0qvi x gv0mi gvSv0w0S0Z, dtj Kv0Z tde0qvi x gv0m Avgvt0 i c000 GB tmwgbvti i AvtqvR0b Kiv m0e b0v ntj I 00ZZg mg0q Avgiv Gi AvtqvR0b mg\_0hB|

Avgvt0 i Avg00tY Avgvt0 i m000w0Z Av\_0Ze0 Aa0vcK g. AvLZvi 003avgvb, Aa0vcK w00tR0b kg0, Aa0vcK GBP tK Gm Av0i w0db, Aa0vcK k0v0j Bmj vq Ges Rbve Avw0md mvov w0 tq Avtj vP0vq Dc0w0Z n0t0tQb 0 Avgiv Avgvt0 i m0Mv0t0bi c00 t\_0tK Rv0w00 A0k0 KZ0Zv|

Avgvt0 i B00Q GB Avtj vP0vi ga0 w0 tq weeZ0evt0 i Avmj K\_0v\_0tj v Ges c0Ym00i i nm0gq w0 K\_0tj v D0v Avm0e hv0 ga0 w0 tq Avgiv Wvi 0Db I weeZ0evt0 i Ab0 K0xj et0 i Rv0ve Avgvt0 i k0v| Avgiv Avkv Kie AvR0tKi Avtj vP0v mfvi we0 » Avtj vPKe0 cy0K 0U0i Avtj vP0vtK tK00 Kti AvR0tKi tmwgbvti i w0l qe0j I ci Avtj vKcvZ Kti tk0Zvt0 i Avi I Avtj w0kZ K0teb|

Avwg Avtj vP0v ce0k0t0 c0pivq Avcbvt0 i Kv0Q w0t0i Avme 003 Avtj vP0vi mgq| Bw0Zg0a0 Avwg Avgvt0 i g00Ai

mn mæuv` K Rbve mvBdi ingvb ZcbtK AbpovbW cwi Pvj bvi Rb` Abti va KiwQ| Awg Avkv Kie Avtj vPbvW  
cŸYeš-nte Ges Avcbvii Mfxi fvte DctfvM Ki teb| Avcbv` i Atkl ab`ev` |

## mfvcwZi fviY

we` » I gtbvg»Ki Avtj vPbv I cktEvi ceftkl cŸvgvmdK mfvcwZ wntmte Avgvi `ŸPvi K\_v ej vi K\_v| ej v  
evuj` th, wKQŸY AvtM cŸY I weeZŸev` wbtq tl, AvbMfŸAvtj vPbv ntqtQ Gi I ci Avgvi H`yU wbtq thvM  
Kivi mvgvb`B AvtQ|

mfvcwZi GKwU cieT` wqZinj Avtj vPbvq Asktbqv Avgvi mnKgŸweÁ eU` i Avgv` i msMvbiU cŸ t\_`K  
ab`ev` I KZÁ cKvk Kiv| cvtQ K\_vi Rvtj Ave× ntq G gnr KvRw Ki tZ fjtj hvB ZvB GuU meŸMŸmæúbe  
Kwi | Aa`vcK Rvgvb, Bmj vg, Avtiwdb, kgŸI Awmd Avcbv` i Atkl ab`ev` | mæxgEj x Avcbvii Atkl `ah`  
wbtq GKwU bxi m wbtqi I ci Avtj vPbv i tbtQb GeRb` ab`ev` i wmsnfvM Avcbv` i cŸc`| Avcbvii Avgv` i  
KZÁZi cvtk Ave× Kti tQb, Zte Avgiv Avkv Kie th Avgv` i fwe` tZi AbpovtBl Avcbvii Avmteb|

GK\_v KwU etj B Awg Avgvi `vq mvi tZ cvi Zvg, wKš` GuU Kijtj Avgvi AwZ wctŸfvRb MšKvi Tqxi I ci  
AwePvi Kiv nte| Zvii wbdŸq PvBte AvRtKi Avtj vPbv mfvi mfvcwZ wntmte AcUz fvlvq ntj I `ŸPvi wU fvj  
g` K\_v ewj | Awg Zv` i g`ewmvi cvT` ntZ PvB bv| mZivis mstŸtj c wKQy K\_v, wclq mæútk`bq, eB `yU  
mæútkŸ

cŸtgB etj i wL eB `yU i tKvb mgvtj vPbv AvR Awg Kie bv| ctoitb axti mŸ` H KvRw Awg cti Kie,  
K\_v w`jvg| wZb Rb MšKvi B Avgvi tek wKtUi Ges Gt` i mvt\_ Avgvi mæúKŸtmæw³| etj ivLv fvj  
wZbRbB gŸg bvi m`m`, tmB mŸT Avgv` i wŸŸv Avt`vj b gŸÁi l m`m`, Awg AšZ ZvB wetePbv KwU |  
Avcbvii Aemti i GKRB AwKZŸ e³te` Kx Kvi tY Zvii eB `yU cKvk Kti tQb i btj b| mvgvb` wKQy T`wU  
(100% T`wU gŸ Kiv cŸq Amæe) \_vKv mŸEi cKvkvb `yU GK K\_vq cwi QbŸ Avgvi tek fvj tj tMtQ,  
Abt` i K\_v Rvb bv| Zte wei`c gše` tZv Kvi I Avtj vPbv tZB t` Lj vg bv|

Avi GKwU K\_v ewj , eB `yU i wclq e`wKš`ci`úti i mæútk| AwfwrR I dwi t` i eBwU cŸYi DtbŸ, GKtKvix  
Rtfei D`mæ Ges Zv t\_`K eútkvix RwUj t\_`K RwUj Zi Rtfei DĒiY, weKvk I weeZŸbi PgKcŸ Kwmbx  
thLv t b tkl ntqtQ, tmLv t\_`KB weeZŸbi c\_` aŸi cŸ\_extZ wefŸbe l mæxgvxb `ewPŸgq cŸRwZi D`mæ, weKvk,  
weeZŸ Avevi KLbl webrk NtUtQ Zvi GK `xNŸi vgwUK DcvL`vb eb`v Avntg` Zvi weeZŸbi c\_` aŸi eBwUtZ  
Ztj aŸi tQ| mektkl GK aŸi Yi cŸBtgU t\_`K weeZŸbi c\_` tetq tKgb Kti Avgiv tntŸgv m`wctqbm A\_Ÿ  
eyx`xb gvby cŸRwZiv j ŸŸwaK eŸi AvtM aiv cŸŸ AwefŸ ntq Ÿwecj v G cŸ\_exi KZ UKzRvbŸ we`šqfi v`wŸ  
wbtq tmvRv ntq `wotqŸj vg Zvi `eÁwmbK Z\_`wŸ A\_P tivgvÁKi GK Kwmbx Ztj aŸi tQ eb`v Avntg` bvtgi  
GKwU wgwŸ tgŸq hvi tckv wmmŸUg Gbvj vBwmm ev c`wZ wektl Y|

Rtfei, Zv hZ Ÿj` I tgŸij KZg tnvK bv tKb, cŸvbZg %æwkŸ nj , AwfwrR I dwi ` etj tQb Zv` i eBtq Ges  
W. Rvgvbl tmK\_v cbj` t`j L Kti tQb, th`ŸsqwŸq ivmvgvbK cŸŸqvh wbtRi cŸZifc`Zwi tZ mvg\_` , hvtk Avgiv  
ewj `Ztcbj`rcv` b ŸŸgZv| AwfwrR-dwi` ewŸ AvYexŸwYK mij Rtfeiv maviYZt cbj`rcv` b NUvq  
wbtRt` i tKv wefvRtbi gva`tg| Zv` i cŸ`K cŸRwZi K\_v t bB, \_vKvi K\_vl bq| RxeRMtZi weeZŸbi GK  
chŸŸq t` Lv t`q GKB ŸtkiY tZŸ` Ÿ-Rxe I cŸ-Rtfei | Avevi Ggb Rtfei I Aw`Zi i tqtQ hvi gŸa` GKB mŸt\_`  
Ÿ- I cŸ`æwkŸ we`gvb| D`PZi Rtfei tŸŸt` cbj`rcv` b NtU Ÿ- I cŸ- RwZi cŸRbtbi gva`tg| GKwU  
cŸRwZi cbj`rcv` b NtU GB cŸŸqZB| GB cŸRwZi cŸYwU KxUB tnvK, Bii j B tnvK ev gby` B tnvK| Zvntj

cRwZ Kx ? cRwZ nj GKw AvcvZ m`k Rxe-tkYvi tgšij KZg GKK| GB tgšij KZg GKtKi AšfP  
m`m`iv GtK Atb`i gta` thšb ev cRbb cŃuqvi gva`tg cbj`rcv`b A\_Ń mšvb D`cv`b ev esk ep`x KitZ  
m`Ńg| GKw D`vniY t`qv thtZ cvti, Avgiv bvbv ai`Ńi B`j t`Ltz cvB, thgb tj sw Bū j, taŃi Bū j, tMtQv  
Bū j, eb` Bū j .. BZ`w` | tj sw B`Ńi i gta` cRbtb tj sw Bū j RbŃte | wKš`tj sw Bū Ńi i mvŃ\_ eb` Bū Ńi i  
cRbb NUte bv- thšb wŃqv mgvav ntj I mšvb Drcv`b NUte bv| Avi mšvb D`cw`Z ntj I H mšwZiv nte  
Abj cv`bkj cŃY| Mvav I tNvovi wj b RvZ L`Pi bvgK cŃYw eŃ`v, G Avgiv mevB Rwb| Avgiv KvŃj v  
gvb| B nB Avi tkZKvq nB cw\_exi th tkvb AĀtj i bvi x-cj`tli thšb wj b RbŃte cbj`rcv`b`Ńg gvbe ev  
gvbex| ZvB cw\_exi mKj gvb| Zvi tPniv Oj tZ, eŃY`evŃt hZ %mv`k`B cKwUZ tnvK Giv GKB cRwZi ev  
w`umR|

weeZŃbi c\_ aŃi eBw m`uŃK`Pvi K\_v etj wB cŃtg, Gi tj LK Avgvi Lp KvŃi gvb| eBw 8g Aa`vq  
Aewa Avgv DŃ`vM wbtq wŃPŃvq avivewKfŃte cKvŃk hZevb nB Ges tmmgq cvEj wci GLvŃb tmLvŃb Clr  
m`uŃ`bvi KvRI KŃiŃQ| bvbv e`vZvi KvŃY tmmgq tj wLkV Ab`cwi`Q`\_tj v tkl KitZ cvti wB, dtj  
cKvkvq tŃ`cŃo| tm`K t`ŃK eBw cŃZ Avgvi GK ai`Ńi ggZv tva KvR KŃiŃQ| 8g Aa`vq chš-  
tj wLkV AwZ hZŃe mvŃ\_ RxeRMtZ wŃfŃecRwZi D`wŃeb I weeZŃ, GK cRwZ t`ŃK Ab`cRwZi DEiY Kx  
fŃte weeZŃbi ga`w`Ńq m`xN`Kvj aŃi NŃtŃQ ev NUtZ\_ŃtK Zvi PgrKvi wŃPŃ Ztj aŃiŃQ| WiDŃbi Kvj  
t`ŃK weeZŃev`wŃtRB tKgb KŃi Ńgk AbKŃi t`ŃK`eĀwBk ZŃEj cwiYZ ntqŃQ tm QweI cvŃtKi KvŃQ  
D`wŃmZ ntq IŃV| weĀvŃbi Ab`kvLv thgb c`v`Ńe`v, RxeŃe`v, AYRxeŃe`v, fwe`v I RxeŃe`v,  
cŃZŃeŃe`v BZ`w` kv`Kx fŃte weeZŃev`cŃZŃvq Ae`vb ivLŃQ tm wŃPŃI cvK tŃtq hvb| 9g Aa`vq ewŃZ  
ntqŃQ WiDŃbi AmgvŃ K\_v Ń Descent of Man Ń Gi cŃq m`uŃY`Kwmbx| i ay dwtj i ti KWŃt`ŃK bq,  
ŃRŃvq wŃkŃtŃbi AvajbK dj vj`\_wjtK mv`wbtq Avgv`i gvbe RwZi wŃfŃecRwZi wŃKv mvab KxfŃte  
NŃtŃQ, KxfŃte tnvŃg-m`wŃtqŃtŃmi ceŃj`Ńliv 70-80 nvRvi eŃi AvŃM AwŃKvi DcKj fŃM tŃi Gwkv  
BDŃivc gnvŃ`tk QwiŃq coj Zvi BwZnm Avgv`i wŃŃŃq DŃ`K KŃi | eb`v Avntg`BbtUj ŃRw WWRvBb ZŃEj  
wbtqI mgvŃvPbvj K GKw Z`wŃfP Aa`vq wj tLŃQ| me K\_v Avcbv Avgvi gŃ\_ t`ŃKB i bteb ZvŃZv nq  
bv| AbMŃ KŃi eBw wKŃb cvK Ki`b Avcbv AŃbK tawkvv tKŃU hŃte, ZLb Avcbv Avi ej`Ńeb bv Avgv evbi  
t`ŃK mi vmi GŃmŃQ| ZŃe fj`Ńeb bv w`uŃvĀx Avgv`i wKUZg AvZŃq Avi Mwi j v mvgv` GKUz`Ńi; Mwi j v,  
w`uŃvĀx I gvbe AŃbK AŃbK Kvj AvŃM GK AwfŃecŃj`I t`ŃK weeZŃbi ga`w`Ńq AvŃtKi Mwi j v, AvŃtKi  
gvb| Avi AvŃtKi w`uŃvĀxZ DcbxZ ntqŃQ| cŃq 60 j`Ń eŃi AvŃM w`uŃvĀx`i t`ŃK Avgiv wŃQbentq  
`Zšj weeZŃb GLvŃb DŃV GŃmŃQ|

AvŃwRr-dwi`I Avgvi KvŃi gvb| eBŃq wŃfŃecwi`Q`\_tj vi AŃbK`\_tj vB BbUvŃtŃUi gva`tg Avgvi  
AvŃMB cov ntqŃQ| fvlv tek mvej xj I`^ŃQ| i mvq b kv`Ńj RwŃj mgxKi Y`\_tj v AŃbK mnR KŃi evŃgq KŃi  
Ztj ŃQ Zviv| gvŃ KŃqKw tgšj (element) thgb CHON SP t`ŃK cŃY mŃi gj Dc`vb thgb GwŃtŃv  
GwmW, Zv t`ŃK tŃwŃb`Zix Kiv m`e Zv cvŃtKi KvŃQ mhtZŃZtj aŃiŃQ Zviv| cŃhŃZ GKw K\_v ewj, Avgvi  
gŃb AvŃQ Avgiv hLb wŃkŃe`vj tŃq OvŃ 1954 mvŃj, cŃg Rvbv Avgv`i tKŃgw`Ń w`ŃŃtKi KvŃQ  
BDŃi-wj vŃi PgKcŃ cixŃŃYi K\_v| Avgv`i gvŃS tek`n`P cŃo wŃtqŃQj, ZLb Avgiv eŃSŃvŃg th  
j`veti Uwi ŃZ cŃY mŃi Kiv m`e ntqŃQ| cŃi Avgv`i AiMwBk tKŃgw`Ń w`ŃŃK Aa`vcK thvŃMk kgP RvbŃj  
tNŃU GKw`b Avgv`i RvbŃj b th cŃY bq ZŃe cŃŃYi th me fŃvUvj %Re Dcv`Ńbi cŃqŃRb nq tmBme  
Dcv`vb`Zix Kiv tMtŃQ| cieZŃKvj KvKZvj xqfŃteB nqŃZv, BDŃi-wj vi Drcw`Z AŃbK`\_tj v GwŃtŃv  
GwmŃWi (alanine, glycine, amino butyric acid, aspartic acid, beta alanine etc ..) ti wŃtqk b  
tKŃgw`Ńwbtq KvR KŃiŃQ IŃtŃi`kŃtKi gvSgwmŃZ| m`ax gŃj x Avgv`K gvd Ki`Ńeb e`wŃMZ cŃhŃZ tZij vq|

112 cŃvi GB eBw 8w Aa`vq wŃfŃ| cŃg Aa`vq gZ`j I RxeŃbi mšv wbtq AvŃj vPbv Kiv ntqŃQ| cvK  
RvbŃZ cvŃŃeb gZ`Kx, RxeB ev Kx| tj LKŃq tRvi w`ŃtŃQb cw\_exZ cŃŃYi DŃbŃI i tŃŃb iŃtŃQ i mvqwbK  
Drcw`ZŃEj A\_Ń e`ev`x ZŃEj| GB ZŃwŃi bvbv w`K wbtq Zviv wŃkŃY KŃiŃQ 2-5g Aa`vq| 6-8 Aa`vq

ewneik| cōYi Dtb#li m#tebv, gnwetkj Abī mfZvi AwZi Ges Zt`i Avgiv cw\_exevmx tmB ARvbw  
mfZvi wbgPKvix`i mv#\_ Kxfvte μgvMZ tPóv Pwj tq hwrQ Zvi mvdj`-e`\_Zvi K\_v ejv ntqtQ,  
c`v\_Áv#bi Ruj mgxKiY I ZĒ; fivμvš-bv Kti| cñ½Z Dtl L Kwi gybeq wPŠv`kfb tKej gv  
fivev`xivB ivRZ; Ktiqb GUV wKŠ`WK bq| whi i Rtb# 600 eQi AvtM fvi Ziq e`ev`x `vkK Kwj  
etj wQtb tKvb Aki xvi AvZ# bq, cōY m#ó ntqtQ GB awi ÍxtZB AcōY-A%Re cĀfZ t\_tK| A%Re Ro t\_tK  
wK Kti `PZb`gq Rxfi D`e nq Zv tevSvZ ZLbKvi Áv#bi mxgvq etj qb, 0 th th `è` w` tq g` `Zix nq  
Zvi tKvbwZB gv`K kw³ \_vtK bv, wKŠ`tm me `è` wgvktq mó gt` \_vtK gv`KZv Ó| GtZv ZLbKvi fvlvi  
ivmvgwbK cμqvi cōYi D`etei K\_vB etj qb Kwj | PreK I MōK `vkwtKivl AtbtK G aitYi K\_v  
etj qb| GtK Avgiv ej tZ cwii cōY mRtbi e`ev`x ZĒ;|

th mvavi b epxgvb cwKt`i D#i`k` eBwU tj Lv ntqtQ Zviv GwU cvW Ki t# th AtbK DcKZ nteb GtZ Avgvi  
tKvb m#`n tbB| Avgiv th Kwlg Dcvtq cōY m#ó Lp KvQvKwQ Gtm tcs#PwQ Zv Rvbw hvq GB eBwU cvW  
Ki t# |

Awg PvBe eB `Uj euj cPti | Avkv Kwi cKvK G evciti wQyc`t#c t#teb| Avgiv hw` wQymnvqZv  
w` tZ cwii Zv mva`gZ Kiv nte| Avcbt`i Avei I Atkl ab`ev` |

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প্রবন্ধটি সুতনী ফন্টে লেখা। এই ফন্টে লেখা প্রবন্ধ অ্যাডোবী অ্যাক্রোব্যট অনেক সময় সাপোর্ট করে না। পাঠকদের  
সুতনী ফন্ট ডাউনলোড করার অনুরোধ রইল:

[http://www.mukto-mona.com/new\\_site/mukto-mona/faq\\_mm.htm#Bangla](http://www.mukto-mona.com/new_site/mukto-mona/faq_mm.htm#Bangla)

মডারেটর।