chtyi Dtb# I weeZ19 kxl 18 tmwgbvi mfvcwZi mPbv e3e"

ARq ivq

Av‡j vPbvq AskMbnYKvix cwÊZeMGes myaxgÊjx,

wk¶v Avt>`vj b AvtqvwRZ ÒcůtYi Dtb¥l I weeZ®Ó kxl® AvRtKi †mwgbvti Avcbvt`i AvšwiK ¯0MZ RvbvB|GB AvtjvPbv mfvi AvtqvRtbi †cQtb †QvÆ cUfwg itqtQ|

GK | Avcbviv Rvtbb th weeZfevt`i RbK Pvj fm WviDBb 1809 mvtji 12B tde²qvixtZ RbWMfnY KtiwQtjb | Avi Zvi mvov RvMvtbv Mfs'Ò Origin of Species Ó clKvwkZ nq 1859 mvtji btf¤f gvtm | mvov wetk|12B tde²qvix ZvviLvU weÁvbx I AbþovÜrmygntj WviDBb w`em wntmte cvvjZ nq | Avgvt`i Bt"Q wQj H w`emwUtZ GB tmwgbvivUi Abpovtbi ga¨ w`tq Awfeïw³evt`i c_cÖkftK k²v Rvbvtbv, wKš′bvbv KvitY tmwU m¤e nq wb |

`ß| Avgv‡`i bvbv Kv‡Ri mn‡hvMx msMVb Ògy³gbvÓði `yRb m`m¨, hviv, wk¶v Av‡>`vjb g‡Âil m`m¨, cð‡Yi weKvk Kx fv‡e NUj Ges weeZ∯bi c_ a‡i cðÿxRM‡Z cðRwwZi D™ê Ges gvb‡li Awvef®i wb‡q m¤cðúZ `ywU cỹK wj‡L‡Qb hv AvR‡Ki †mwgbv‡ii mv‡_ cðinwi½K| cỹK `ywU njt

- 1. gnweţk¦cÖY I ew×gËvi †Lu‡R Ñ AwfwRrivq I dwi` Avnţg`
- 2. weeZ\bi c_a\ti \ti eb\v Avn\tg\

`yU eBŐB cKvk K‡i‡Q ÔAemiŐ bv‡gi cKvkbv ms~(wU)

GB †mwgbvi Abyôv‡bi Avi GKwU cÖQbœKviY nj cÖ‡Yi D™€ I weeZ® welq wb‡q Av‡jvPbvi ga¨w`‡q Avgiv GB cy¯K `ywU mv‡_ Avcbv‡`i cwiPq Kwi‡q w`‡Z PvB| Avgiv g‡b Kwi GB `ywU cy¯‡Ki ga¨w`‡q cÖ‡Yi D‡b‡Ii RwUj I ¸pinm¨¸‡jv Ges wÿeZ®ev‡`i Ašnb@nZ K_v¸‡jv Ges Gi eZ®vb îeÁwwbK Ae¯vb mvaviY eyn×gvb cvV‡Ki Kv‡Q mnR I myjwj Z fvIvq Z‡j aiv n‡q‡Q|

cy¯K`yU Avgvt`i nvtZ GtmtQ tde°qvix gvtmi gvSvgwstZ, dtj KvhZ tde°qvix gvtm Avgvt`i ct¶ GB tmwgbvtii AvtqvRb Kiv m¤@ bv ntj I `°ZZg mgtq Avgiv Gi AvtqvRtb mg_@nB|

Avgvţ`i AvgsţY Avgvţ`i m¤§wbZ Aw_wZe; AaïvcK g. AvLZvi"¾vgvb, AaïvcK wØţRb kg®, AaïvcK GBP tK Gm Avţiwdb, AaïvcK kwn`j Bmj vg Ges Rbve Awmd mvov w`ţq AvţjvPbvq Dcw¯Z nţqţQb Ñ Avgiv Avqvţ`i msMVţbi c¶ t_tK RvbwvO AţkI KZÁZv|

Avgvţ`i Bţ"Q GB AvţjvPbvi ga" w`ţq weeZ19evţ`i Avmj K_v¸ţjv Ges c19Ymwoi inm"gq w`K¸ţjv DţV Avmţe hvi ga" w`ţq Avgiv Wvi"Db I weeZ19evţ`i Ab" Kkxjeţ`i Rvbve Avgvţ`i k²xv| Avgiv Avkv Kie AvRţKi AvţjvPbv mfvi we`» AvţjvPKe; cy K `wUi AvţjvPbvţK tK; avRţKi tmwgbvţii welqe ý Ici AvţjvKcvZ Kţi tk²Zvţ`i Avil AvţjwwKZ Kiţeb|

Awwg Av‡j vPbv ce¶k‡l c†pivq Avcbv‡`i Kv‡Q wd‡i Avme °₽ Av‡j vPbvi mgq| BwZg‡a¨ Awwg Avgv‡`i g‡Âi

mn m¤úv`K Rbve mvBdi ingvb Zcb‡K AbpôvbwU cwiPvj bvi Rb¨ Abţiva KiwQ | Avwg Avkv Kie Avţj vPbwU cŵYeš-nţe Ges Avcbvi v Mfxi fvţe DcţfvM Kiţeb | Avcbvţ`i Aţkl ab¨ev` |

mfvcwZi fvlY

we`» I g‡bvgy» Ki Av‡j vPbv I cikteËvi ce¶k‡l c<u>ü</u>vgwwdK mfvcwZ wn‡m‡e Avgvi `jPvi K_v ej vi K_v| ej v evûj¨†h, wKQ¶∏Y Av‡M ciNY I weeZ19ev` wb‡q†l, ÁvbMf®Av‡j vPbv n‡q‡Q Gi Ici Avgvi H`yU wel‡q†hvM Kivi mvgvb¨B Av‡Q|

mfvcwZi GKwU cweî `wwqZinj AvtjvPbvq Asktbqv Avgvi mnKg@weÁ eÜt`i Avgvt`i msMVbwUi c¶ †_tK ab¨ev` I KZÁ ciKvk Kiv| cvtQ K_vi Rvtj Ave× ntq G gnr KvRwU KitZ ftj hvB ZvB GwU me@tMim¤úbœ Kwi| Aa¨vcK Rvgvb, Bmj vg, Avtiwdb, kg@l Awmd Avcbvt`i Atkl ab¨ev`| myaxgêj x Avcbviv Atkl ah® wbtq GKwU bxim weltqi Ici AvtjvPbv ïtbtQb GeRb¨ ab¨evt`i wmsnfvM Avcbt`i cic¨| Avcbviv Avgvt`i KZÁZv cvtk Ave× KtitQb, Zte Avgiv Avkv Kie th Avgvt`i fwel¨tZi Abyôvtbl Avcbviv Avmteb|

GK_v KwU eţj B Awwg Avgvi `vq mvi‡Z cvi Zvg, wKš' GwU Ki‡j Avgvi AwZ wcðqfvRb MðšKvi \hat{I} qxi Ici AwePvi Kiv n‡e| Zviv wbðq PvB‡e AvR‡Ki Av‡j vPbv mfvi mfvcwZ wn‡m‡e AcUz fvIvq n‡j I ` \hat{J} PviwU fvj g>` K_v ewj | Awg Zv‡`i g>`evmvi cv \hat{I} n‡Z PvB bv| mZivs ms‡¶‡c wKQy K_v, weIq mZu‡K \hat{J} bq, eB `Zu mZu‡K \hat{J}

cůtgB etj iwL eB `yUi tKvb mgvtjvPbv AvR Awng Kie bv| ctoïtb axti myt 'H KvRwU Awng cti Kie, K_v w`jvg| wZb Rb MiskviB Avgvi tek wbKtUi Ges Gt`i mvt Avgvi m¤úK©tmnamm³| etj ivLv fvj wZbRbB gy³gbvi m`m", tmB m‡î Avgvt`i wk¶v Avt>`vjb gtÂil m`m", Awng AšZ ZvB wetePbv Kwi| Avcbviv Aemtii GKRb AwaKZM e³te" Kx KvitY Zviv eB `yU clkvk KtitQb ïbtjb| mvgvb" wKQyî "wU (100% î "wU gy³ Kiv cliq Am¤te) _vKv mtEl clkvkbv `yU GK K_vq cwi "Qbde Avgvi tek fvj tjtMtQ, Ab"t`i K_v Rwwb bv| Zte wei "c qše" tZv Kvil AvtjvPbvtZB t`Ljvg bv|

Avi GKwU K_v ewj, eB`yUi welqe⁻ʻwKšʻci⁻úţii m¤úţK| AwfwRr I dwiţ`i eBwU côţtyi Dţb\landle GKtKvIx Rxtei D™e Ges Zv ţ_tK eûţKvIx RwUj †_ţK RwUj Zi Rxţei DËiY, weKvk I weeZ\bi PgKcô Kwwnbx thLvtb tkI ntqtQ, tmLvb †_tKB weeZ\bi c_ aţi cw_extZ wewfbœl mxgvnxb ^ewPîgq c\bar{R}wZi D™e, weKvk, weeZ\bar{B} Avevi KLbI webvk NţUţQ Zvi GK `xN\bi ivgwbUK DcvL¨vb eb`v Avnţg` Zvi weeZ\bi c_ aţi eBwUţZ Ztj aţiţQ| metkţI GK aiţYi côBţgU t_tK weeZ\bi c_ teţq tKgb Kţi Avgiv tnvţgv m¨vwcţqbm A_\bar{P} ewx`x\bi gvby c\bar{R}wwZivj ¶\waK eQi AvtM aiv cţô Awwef\bar{P} ntq Ôwecjv G cw_exi KZ UKzRwwbÔ we¯\qfiv`wó wbtq tmvRv ntq`wwotqwQj vg Zvi ^eÁwwbK Z_¨wbô A_P tivgvÂKi GK Kwwnbx Ztj aţiţQ eb`v Avntg` bvtgi GKwU wgwó tgtq hvi tckv wmmtUg Gbvj vBwmm ev c×wZ weţkłY|

Rxtei, Zv hZ \P ì a I a I

cíRwZ Kx? cíRwZ nj GKwU AvcvZ m`k Rxe-tkYxi tgŚwjKZg GKK GB tgŚwjKZg GKţKi Ašŧjß m`mïiv G‡K A‡bïi g‡aï thŚb ev cíRbb cólpuqvi gvaï‡g cĺpji"rcv`b A_fr mšwb D`cv`b ev esk ew Ki‡Z m¶g GKwU D`vniY†`qv th‡Z cvţi, Avgiv bvbv ai‡Yi B`yi t`L‡Z cvB, thgb tj swU Bùyi, taṭi Bùyi, tMtQv Bùyi, ebï Bùyi ... BZïwi | tj swU B`ţii g‡aï cíRb‡b tj &wU Bùyi Rb¥ţe | wKš'tj swU Bùţii mvţ_ ebï Bùţii cfRbb NUţe bv- thŚb wpqv mgvav nţi I mšwb Drcv`b NUţe bv | Avi mšwb D`cwi Z nţi I H mšwziv nţe Abyi cv`bkxj cólwY | Mvav I tNvovi wgj b RvZ L″Pi bvgK cólwYwU eÜïv, G Avgiv mevB Rwb | Avgiv Kvţj v gvby B nB Avi tkZKvq nB cy_exi th tKvb AÂţj i bvix-cyi"ţI i thŚb wgj ‡b Rb¥tbţe cĺpyi"rcv`b¶g gvbe ev gvbex | ZvB cy_exi mKj gvby Zvi tPnviv Qyi‡Z, eţY©ewPţÎ hZ %emv`kïB cokwUZ tnvK Giv GKB cokwuZi ev w`úwmR |

weeZ∯bi c_ ati eBwU m¤útK® ÕPvi K_v etj wbB cÖtg, Gi tjLK Avgvi Lje KvtQi gvbyl eBwUi 8g Aa~vg Aewa Awag D‡`"vM wbtg wewPÎvg avivewnKfvte ciKvtk hZevb nB Ges tmmgg cvÊwj wci GLvtb tmLvtb Clr m¤úv`bvi KvRI KţiwQ| bvbv e¨-\Zvi KviţY tmmgq ţjwLKv Ab cwiţ"Q` ţjv tkl KiţZ cvţi wb, dţj cľkvkbvq t0` cto| tm w`K t_tK eBwUi cŵZ Avgvi GK aitYi ggZv teva KvR Ktit0| 8g Aaïvq ch®-†jwLKv AwZ h‡Znic mv‡ RxeRM‡Z wewfbocciRwZi D™0eb I weeZni, GK ciRwZ† ‡K Ab¨ ciRwZi DËiY Kx fvte weeZ¶bi ga w`tq my`xN©Kvj ati NtUtQ ev NUtZ _vtK Zvi PgrKvi wPÎ Ztj atitQ| WviDtbi Kvj t_‡K weeZ®ev` wb‡RB †Kqb K‡i µqk AbKí †_‡K ^eÁwbK Z‡Ë; cwiYZ n‡q‡Q †m Qwel cvV‡Ki Kv‡Q D™nmZ ntg ItV| neÁvtbi Ab" kvLv thgb c`v_ne`"v, Rxene`"v, AYnRxene`"v, fne`"v I Rxevkne`"v, cÖZRxene`"v BZ"wi`kv=¿Kx fvţe neeZ19ev` cÖZôvq Ae`vb ivLţQ tm nPÎI cvVK tcţq hvb| 9q Aa"vţq enYZ ntqtQ Wvi Dtbi AmgvB K v Ô Descent of Man Õ Gi cồg m¤úY©Kwnbx| ïav dwmti i ti KW©t tK bg, ‡R‡bvq we‡kł‡bi AvawbK djvdj_wj‡K mv_ wb‡q Avqv‡`i gvbe RvwZi wewfbœciRvwZi weKvk mvab Kxfv‡e NţUţQ, Kxfvţe †nvţqv-m~wcţqţbţmi ce@i"ţliv 70-80 nvRvi eQi AvţM AvwdKvi DcKijfvM †Qţi Gwkqv BDţivc gnvţ`ţk Qwiţq coj Zvi BwZnvm Avgvţ`i we-ştqi Dţ`K Kţi| eb"v Avnţg` BbţUwjţRvU wWRvBb ZË; wbtql mgvtjvPbvgjK GKwU Z_" wbfP Aa"vq wjtLtQ| me K_v Avcbviv Avgvi gyL t_tKB i bteb ZvtZv nq by AbMin Kti eBwU wKtb cvV Ki"b Avcbyi AtbK tawayky tKtU hyte, ZLb Aycwb Ayi ejteb by Awa eybi t_‡K mivmwi G‡mwQ| Z‡e fyi‡eb bv wk¤úvÄx Avgv‡`i wbKUZq AvZ*kq Avi Mwijv mvgvb¨GKUz`‡i; Mwijv, wk¤úvÄx I qvbe A‡bK A‡bK Kvj. Av‡M GK Awfbœce©cji"I †_‡K weeZ∯bi ga`w`‡q AvR‡Ki Mwijv, AvR‡Ki gyby Avi AvR‡Ki wk¤úvÄx‡Z DcbxZ n‡q‡Q| cíðq 60 j¶ eQi Av‡M wk¤úvÄx‡`i †_‡K Avgiv wew"Qbæn‡q ¯ZŠįweeZ∯b GLv‡b D‡V G‡mwQ|

AwfwRr-dwi`I Avgvi KvtQi gvby | eBtqi wewfbccwit"Q`_tjvi AtbK_tjvB BbUvitbtUi gva"tg Avgvi AvtMB cov ntqtQ | fvIv tek mvej xj I _"Q | imvqb kvt_i RwUj mgxKiY_tjv AtbK mnR Kti evOgq Kti ZtjtQ Zviv | gvî KtqKwU tg\$j (element) thgb CHON SP t_tK côV mwoi gj Dc`vb thgb Gwgtbv GwmW, Zv t_tK tcôwUb Zix Kiv m¤e Zv cvVtKi KvtQ mhtZcZtj atitQ Zviv | côn½Z GKwU K_v ewj , Avgvi gtb AvtQ Avgiv hLb wekpe`"vjtqi Qvî 1954 mvtj , cog Rvbjvg Avgvt`i tKtgw÷i wk¶tKi KvtQ BDti-wgjvtii PgKco cix¶tYi K_v | Avgvt`i gvtS tek ^n ^P cto wMtqwQj , ZLb Avgiv etSwQj vg th j "veti UwitZ côV mwo Kiv m¤e ntqtQ | cti Avgvt`i AiMwbK tKtgw÷i wk¶K Aa"vcK thvtMk kg®Rvbf tNtU GKw`b Avgvt`i Rvbvtj b th côY bq Zte côtYi th me fvBUvj %Re Dcv`vtbi côqtRb nq tmBme Dcv`vb ^Zix Kiv tMtQ | cieZfKvtj KvKZvj xqfvteB nqtZv, BDtiv-wgj vi Drcw`Z AtbK_tjv Gwgtbv GwmtWi (alanine, glycine, amino butyric acid, aspartic acid, beta alanine etc ...) tiwWtqkb tKtgw÷i wbtq KvR KtiwQ IvtUi `ktKi gvSvgwstZ | mpx gêj x AvgvtK gvd Kiteb e"w³MZ côn½ tZvj vq |

112 côvi GB eBwU 8wU Aa¨vṭq wef³ | côg Aa¨vṭq gZ¨ji I Rxeṭbi mswAv wbṭq Avṭj vPbv Kiv nṭqṭQ | cvVK RvbṭZ cviṭeb gZ¨"Kx, RxebB ev Kx | ṭj LKØq ṭRvi wʾ ṭqṭQb cw_exṭZ côṭYi Dṭb\textup I tcQtb iṭqṭQ ivmvqwbK DrcwE ZËį A_Pr e¯ev`x ZEį GB ZËwUi bvbv ẁ K wbṭq Zviv weṭk-IY KṭiṭQ 2-5g Aa¨vṭq | 6-8 Aa¨vṭq

ewn letk côty i D‡b\ti i m=0ebv, gnwetk Ab Î mf Zvi Aw Z_i Ges Zvt i Avgiv cw_exevmx \$\text{tmB}\$ ARvbv mf Zvi wbg ly Kvixt i mvt_ Kxfvte \(\text{µgvMZ} \) †Póv Pwj tq hw Q Zvi mvdj "-e"_\(\text{Zvi} \) K_v ej v ntqtQ, c`v_\(\text{le} \) Av\ti bi RwUj mgxKiY I Z\(\text{E}_i \) fiv\(\text{µv} \text{S} \) bv K\(\text{ti} \) | c\(\text{ln} \) ½Z Dtj L Kwi gvbexq \(\text{NPS} \text{~`k} \text{~ k} \) tKej gv \(\text{fivev} \) xiv B iv RZ_i Kti tQb GUv \(\text{WK} \text{~`wVK} \) bq \\ wh i i Rtb\(\text{ii} \) 600 eQi AvtM fvi Zxq e \(\text{e} \text{v} \) \(\text{v} \) k\(\text{Re} \) K Kwcj etj \(\text{uQtj} \) b† Kvb Aki wi AvZ\(\text{v} \) bq, c\(\text{0} \text{V} \) mwo ntqtQ GB awi \(\text{1} \text{xtZB Acor-A}\) A\(\text{Re} \) c\(\text{A} \) \(\text{PZ} \) \(\text{p} \) \(\text{v} \) tA\(\text{Re} \) Ro \(\text{TK} \) \(\text{WK} \) K\(\text{ti} \) \(\text{PZ} \) bgq Rxtei \(\text{D}^\mathbf{e} \) nq Zv \(\text{tevSvtZ ZLbKvi Avtbi mxgvq etj tQb, 0} \) th th \(\text{e} \) \(\text{w} \) \(\text{TE} \) \(\text{V} \) \(

th mvavi b eyv \leq yvb cvVK \ddagger `i D \ddagger Ï \ddagger k \equiv eBwU \ddagger j Lv n \ddagger q \ddagger Q Zvi v GwU cvV Ki \ddagger j th A \ddagger bK DcKZ n \ddagger eb G \ddagger Z Avgvi †Kvb m \ddagger >`n \dagger bB| Avgiv th Kw \ddagger g Dcv \ddagger q c \dagger Y myvoi Lye KvQvKvwQ G \ddagger m \dagger c \ddagger PwQ Zv Rvbv hvq GB eBwU cvV Ki \ddagger j |

Awng PvBe eB`yUi eûj cPvţii | Avkv Kwi cKvkK G e"vcvţi wKQyc`ţ¶c tbţeb | Avgiv hw` wKQymnvqZv w`ţZ cwi Zv mva"gZ Kiv nţe | Avcbvţ`i Aveil Aţkl ab"ev` |

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

http://www.mukto-mona.com/new_site/mukto-mona/fag_mm.htm#Bangla

মডারেটর।