



**cW 4.1**

**BDtivc gnv`k cwiPvZ : Ae`vb I AvqZb**

**Df`k`**

**GB cW tk`I Avcib**

- 1 BDtivci Ae`vb, AvqZb I mXgv RvbZ cvi`eb,
- 1 BDtivci DckTj i eY`v w`Z cvi`eb|

**4.1 Ae`vb AvqZb I mXgv**

**Ae`vb :** GB gnv`k vU 35° DEi Aqivsk t`K 71° Aqivsk chS Ges 25° cWdg `wNgv t`K 66° ce`wNgv chS we`Z| cW\_exi tgvU `j fvMi kZKiv cW 7 fvM GB gnv`tki ASMZ|

**AvqZb :** BDtivc gnv`tki AvqZb 99,71,462 eM`wKtj wgvU | cW\_exi gnv`k, t`j vi gta` AvqZbi w`K t`K GB gnv`tki `vb cAg| BDtivc AvqZbi w`K t`K Gvkvri cW 0.24 Ask, AvvKvi 0.35 Ask, DEi Avtgvv Kvi 0.43 Ask, `wNgv Avtgvv Kvi 0.59 Ask tQvU Ges At`ij qvi 1.37 Y I GvUvKvKvi 7.45 Y eo| BDtivc gnv`tki ce`wNgv `N`Gi DEi-`wNgv cW`i 1.25 Y|

**mXgv :** AvqZbi Z`vbq BDtivci Dckj- tiLv ht`o fMæGes mXvN` GB gnv`tki tgvU Dckj- tiLv 41,204 wKtj wgvU A`v cW 242 eM`wKtj wgvU AvqZb 1 wKtj wgvU Dckj- tiLv| AtbK RvqMvq gnv`tki Af`sti AtbK`i chS mMi DcmMi cWek KtiQ| BDtivci tKv`v AskB mgy`t`K 1.690 wKtj wgvU`i tenk `fi Ae`vZ bq| dtj BDtivci DckTj AtbK e`i I `vfvEK tcvZikt Mto DtvQ| G gnv`tki DckTj AtbK Dc`xc, `xc I `xc`i itqQ| DEi DckTj tkZ mMi, teti>Um mMi, tev`vbq DcmMi, evvEK mMi, DEi mMi, AvBv`k mMi, tKvj v Dc`xc, j tcvU`b `xc`i, AvBmj `vU `xc, `vU`b`v`q Dc`xc (bi l`q, m`vWb I vcbj `vU), tWbgvK`Dc`xc c`vb| GQvov t`v`q tRgvj qv I vUmer`R` `xc, DEi AS`xc I b`Kb AS`xc itqQ| cWdg DckTj we`v DcmMi Ges mivB`v`v qv Dc`xc (t`vb-cZ`v)| `wNgv DckTj fga`mMi, wj I DcmMi, tR`v`v DcmMi, wZi`vbq mMi, Avv`v`v`v mMi, AvBl`vbq mMi, GvRqvb mMi, gg`v mMi, Kò. mMi I AvRf mMi, tev`v`v K `xc`i, Kv`v `xc, m`v`v `xc, v`v`v `xc, BZvj x Dc`xc, AvBl`vbq `xc`i ej Kiv Dc`xc Ges v`v`v`v Dc`xc Ae`vZ| ce`w`K Gvkv gnv`k vKv GL`v`v GKgvI `j tev`vZ K`v`v`v`v mMi itqQ|

**mvisk**

BDtivc gnrft`kU 35° t\_tK 71° DEi A¶ivstK Ges 25 cUög `mNgvsk t\_tK 66 ce°` mNgvstK Aew`Z| BDtivtci AvqZb 99,71,462 e.¶K.¶g. hv mgMÖ f;fvfMi kZKiv 7 fM| BDtivtci DEi, `¶¶Y Ges cUög GB ¶Zb ¶`K Rj Øviv Ges c¶° ¶`tKi tewki fvMB `j Øviv tewZ| Divj ceZ, Divj b`x, Kw`úqvb m¶Mi, KtKkvm ceZ, `vR¶bij m cbvjx Ges B¶Rqvb m¶Mi G¶kqv t\_tK BDtivtK c\_xK Kti¶Q| BDtivtci DcKj tiLv fMæ Ges mÿxN¶ DcKj tiLvi cwigrY 41,204 ¶Ktj ¶gUvi |

**cvtVvEi gj`vqb-4.1**

**m¶K DEti i c¶k ¶K (v) ¶Py ¶b|**

1. BDtivc gnrft`tki AvqZb KZ?
 

(K) 9,71,426 e.¶K.¶g.	(L) 71,99,642 e.¶K.¶g.
(M) 9,71,264 e.¶K.¶g.	(N) 99,71,462 e.¶K.¶g.
  
2. mgMÖf;fvfMi kZKiv KZfvM BDtivtci AšMZ?
 

(K) 7	(L) 14
(M) 21	(N) 28
  
3. AvqZtb BDtivc A†=¶j qv Atc¶¶v KZ\_y eo?
 

(K) 1.37	(L) 1.37
(M) 137	(N) 713
  
4. BDtivtci DcKj tiLvi `N°KZ?
 

(K) 4,204 ¶K.¶g.	(L) 41,204 ¶K.¶g.
(M) 12,044 ¶K.¶g.	(N) 44,012 ¶K.¶g.

**DEi : 1| N 2| K 3| K 4| L**

**ms¶¶B c¶æ**

1. BDtivc gnrft`tki AvqZb KZ?
2. BDtivtci 5¶U Øxtci bvg ej ty|
3. BDtivtci 5¶U m¶Mti i bvg ej ty|

**iPbvgj-K c¶æ**

1. BDtivc gnrft`tk Ae`vb, AvqZb I m¶qv eY¶v Ki ty|

**cW 4.2**

**BDtiwtci f7cKwZ.**

**DtiK**

**GB cW tkfI AvciB**

- 1 f7cKwZ. Abywti BDtiwtci KqUfwtM fwm Kiv nq Zv RvbtZ cvi teb,
- 1 BDtiwtci f7cKwZi weeiY w tZ cvi teb|

**4.2.1 f7cKwZ.**

f7cKwZ. Abywti BDtiwtci gntf`kfk Pri fwtM fwm Kiv hvq

- 1. DEi-cwotgi cveZ` gij fig
- 2. ga` BDtiwtci we`kyngfig,
- 3. `wY BDtiwtci cveZ` fig, Ges
- 4. ga` I cwog BDtiwtci gij fig|

**1. DEi-cwotgi cveZ` gij fig**

GB AAj cwotgi Kwb wkvq MWZ cveZ` fig wQj | Gme ceZ eZwtb AbyP gij figtZ cwYZ ntqtQ| `wotgi (bi l tq l mwtWb) Dcwtci AwKvsk Gj vKv, `Uj vU, Avqvij vU l hyiwtR`i wKQyAsk Rto cveZ` gij fig itqtQ| GB Gj vKvi gij fig axi axi qqcwB ntq eZwtb AbyP figtZ cwYZ ntqtQ| hyiwtR`i mteP k1/2 Mwucwtbi teb twrfm| Gi D`PZv 1,344 wUvi |

**2. ga` BDtiwtci we`kyngfig**

ga` BDtiwtci mgfig cw\_exi eEg mgfig| dvY, tej wRqv, nj vU, Rvgtbx, tcvj vU Ges iwkvqi cw AwKvsk vb GB mgfigi AšMZ| mgy`mgZj t\_tK GB mgZj D`PZv AwKvsk tqtT 152 wUvti i AwK bq Ges DEi mmi t\_tK KtKvm chš GB mgfigi `N`cw 2,400 wK.wg. | GB mgfigtZ eu wgevn n` l wgevn Zj vbx t`L tZ cvl qv hvq| GRb` GtK Mwti Lv wv i MWZ mgfig etj ati tbqv nq|

**3. `wY BDtiwtci cveZ` fig**

BDtiwtci D`PZg gij fig Ges fwtj ceZ GB AAj Aew`Z| Aví m& BDtiwtci D`PZg ceZ tkYx| Aví tmi mteP k1/2 gvDvU ev | Gi D`PZv 4,807 wUvi | Aví m ceZ tkYx cw 1,116 wK.wg. `wGes 56 t\_tK 64 wK.wg. ck`l| Aví m& ceZ GB cveZ` figi tk`v fwtM Aew`Z| Aví tmi GKw kvLv `wY-ce`w tK we`Z ntqtQ| dvY l t`wtbi mqvst`wctibxR ceZ Aew`Z| wctibxR l wqtqv tbt`vi ga`eZP D`Pfig tgtmUv gij fig bwtg cw wPZ| Rjv Ges tFR Aví tmi DEti Aew`Z w cwotgi qqrVZ ceZ| Kvtc`qwb l w bwiK ceZi gta` `wqbe b`xi DcZ`Kvq nvt1/2ixi mgfig, AvtcbvBb l Aví tmi gta` tj v`wP Ges ej KvB l `wY

Kv̄tc̄q̄t̄bi ḡt̄ā i ḡmb̄q̄vi mḡf̄iḡ Aew̄Z | GB AĀt̄j Aew̄Z BUj xi w̄f̄m̄ȳq̄vm I  
 w̄m̄w̄m̄j ḡt̄ci GUBv BDt̄iv̄t̄ci w̄L̄v̄Z Av̄t̄M̄q̄w̄w̄i |

**4. gā I c̄w̄ḡ BDt̄iv̄t̄ci ḡj f̄iḡ**

gā I c̄w̄ḡ BDt̄iv̄t̄ci ḡj f̄iḡ : t̄Q̄v̄U-eo c̄w̄t̄w̄U w̄ew̄f̄jB ḡj f̄iḡ w̄b̄t̄q̄ G AĀj M̄w̄Z |  
 m̄v̄B̄t̄ew̄i q̄ Dc̄ḡt̄ci t̄ḡt̄m̄Uv ḡj f̄iḡ, d̄v̄Ȳi gā t̄ḡt̄m̄Uv ḡj f̄iḡ, R̄v̄ḡf̄ibi ēw̄f̄w̄i q̄v̄  
 ḡj f̄iḡ Ges t̄PK t̄m̄w̄f̄w̄K̄q̄vi t̄ev̄t̄n̄ḡq̄v ḡj f̄iḡ G AĀt̄j i AŠM̄Z |

**m̄v̄isk**

f̄-c̄K̄w̄Z. Āb̄ȳv̄t̄i BDt̄iv̄t̄K P̄v̄iU f̄v̄t̄M̄ f̄v̄M̄ K̄iv n̄q, h̄\_v : DĒi-c̄w̄ḡt̄gi c̄v̄eZ̄  
 ḡj f̄iḡ, gā BDt̄iv̄t̄ci w̄ēk̄Ȳḡmḡf̄iḡ, w̄f̄jȲi c̄v̄eZ̄ f̄iḡ Ges gā I c̄w̄ḡ  
 BDt̄iv̄t̄ci ḡj f̄iḡ | BDt̄iv̄t̄ci DĒi-c̄w̄ḡt̄gi c̄v̄eZ̄ ḡj f̄iḡ M̄t̄o 1,344 w̄ḡŪvi DP̄ȳ  
 gā BDt̄iv̄t̄ci w̄ēk̄Ȳḡmḡf̄iḡi D̄P̄Z̄v̄ 152 w̄ḡŪvi ev̄ Āb̄w̄aK̄ 500 | BZ̄v̄j xi w̄f̄m̄ȳq̄vm  
 Ges w̄m̄w̄m̄j x̄ ḡt̄ci GUBv BDt̄iv̄t̄ci w̄L̄v̄Z Av̄t̄M̄q̄w̄w̄i | BDt̄iv̄t̄ci m̄ḡP̄ c̄eZ̄t̄k̄Ȳ  
 Av̄i m̄&1,116 w̄K. w̄g. w̄x̄N̄Ges 56 t̄\_K̄ 64 w̄K.w̄g. c̄k̄-|

**c̄v̄t̄w̄Ēi ḡj-v̄q̄b 4.2**

**m̄w̄K DĒi i c̄v̄t̄k̄ w̄K (v̄) w̄P̄ȳ w̄b̄j**

1. f̄-c̄K̄w̄Z. Āb̄ȳv̄t̄i BDt̄iv̄t̄K K̄q̄w̄ f̄v̄t̄M̄ f̄v̄M̄ K̄iv h̄v̄q?  
 (K) 3 (L) 4  
 (M) 5 (N) 6
2. h̄ȳv̄t̄R̄i m̄t̄eP̄P̄ k̄½ M̄w̄v̄-úq̄t̄bi t̄eb t̄b̄w̄f̄m̄ Gi D̄P̄Z̄v̄ KZ?  
 (K) 4,413 w̄ḡŪvi (L) 4,134 w̄ḡŪvi  
 (M) 1,344 w̄ḡŪvi (N) 4,314 w̄ḡŪvi
3. BDt̄iv̄t̄ci w̄c̄t̄i b̄x̄R̄ I w̄m̄t̄q̄iv t̄b̄t̄f̄v̄i gā ēZ̄P̄D̄P̄ ḡj f̄iḡ w̄K b̄v̄t̄ḡ c̄w̄i w̄P̄Z?  
 (K) R̄jv̄ (L) t̄f̄R̄  
 (M) c̄v̄b̄x̄q̄ (N) t̄ḡt̄m̄Uv
4. d̄v̄Ȳ I t̄-ú̄t̄bi gā ēZ̄P̄-ú̄t̄b̄ t̄K̄iv̄ c̄eZ̄ Aew̄Z?  
 (K) w̄c̄t̄b̄w̄i R̄ (L) w̄n̄x̄-ḡk̄k̄  
 (M) Av̄j c̄v̄B̄b̄ (N) w̄nḡv̄j q̄
5. GUBv Av̄t̄M̄q̄w̄w̄i w̄U t̄K̄v̄\_v̄q̄ Aew̄Z?  
 (K) K̄m̄ḡx̄t̄c̄ (L) μ̄x̄U ḡx̄t̄c̄  
 (M) w̄m̄w̄m̄j ḡx̄t̄c̄ (N) m̄v̄w̄w̄q̄v̄ḡx̄t̄c̄
6. t̄K̄iv̄w̄U BZ̄v̄j xi Av̄t̄M̄q̄w̄w̄i ?  
 (K) ḡl b̄v̄ t̄j v̄q̄v̄ (L) w̄f̄m̄ȳq̄vm  
 (M) t̄÷-ḡx̄f̄ x̄ (N) w̄c̄b̄Ūz̄ȳ

**DĒi : 1 | L 2 | M 3 | N 4 | K 5 | M 6 | L**

**msvrfjB**

1. BDtivc gnvf`tki AvqZb I mxgv wj Lly|
2. f;cKwZ. Abyvfi BDtivc gnvf`kK Kq fvM fvM Kiv hvq Ges wK wK?

**iPbvj-K cke**

1. BDtivc gnvf`tki f;cKwZ. eYDv Kily|

**cW 4.3**

**BDtivtci venfbat`k**

**Dti`k`**

**GB cWtk`I Avcib**

- 1 BDtivtci meKiu t`tki bvg, AvqZb I ivRavxi bvg RivtZ cvi`teb,
- 1 BDtivtci KtqKiu t`tki msr`B weeiY w`tZ cvi`teb|

**4.3.1 : BDtivtci venfbat`tki bvg, AvqZb I ivRavx, 1991**

<b>t`tki bvg</b>	<b>AvqZb (eM`Ktj wglvi)</b>	<b>ivRavx</b>
<b>(K) DEi-cidg AAj</b>		
bi l tq	3,24,267	Am`j v
mBt`Wb	4,49,881	÷ K`nvg
h`y ivR`	2,43,977	j Ub
Avqvij`vU	70,188	Wvej b
AvBmj`vU	316	wi KRwFK
<b>(L) ewe`K AAj</b>		
wdbj`vU	3,36,958	tnj wmsuK
Gt`-`nbqv	45,100	Zvuj b
j vUwfqv	63,700	wi Mv
wj`_gmbqv	65,200	wfj`vbqvm
<b>(M) mgf`ig AAj</b>		
tb`vij`vU	33,670	w` tnM
tej`wRqv	30,303	eitmj`tn
j`y gevM`	2,590	j`y gevM`
drY`	5,07,006	c`wim
tWbgvK`	42,994	tKutcb`tn`Mb
Rvg`bx	3,56,253	eb
tcij`vU	3,12,612	I qvi m&
<b>(N) ce`AAj</b>		
ivnkqv (BDti`vcxq Ask)	23,00,892	gt`-`v
evBtj`vin`kqv	2,07,600	wgb`-`c
BDt`mb	6,03,700	wKtqf
tgvj`Wwfv	34,000	wKik`tbf
<b>(O) UY` KtKikqv AAj</b>		
RwR`qv	69,700	wZevj`im
Avt`g`bqv	29,800	Btqti`fvb

AvRvi evBRvb	86,600	evKz
<b>(P) ga` I `mY AĀj</b>		
tPK	85,247	cĀM
t`rfvK	42,623	emU`rfv
i gmbqv	2,37,502	elyti ÷
nv½ix	92,980	eytc÷
Aw÷tqv	83,657	wftqbr
mBRvij`vŪ	41,288	evY <sup>o</sup>
cZĀj	92,400	wj meb
t`úb	5,04,781	gwi` <sup>a</sup>
GtŪviv	466	jv wfv
BZvj x	3,01,295	ti vg
f`vUK`vb	0.18	f`vUK`vb wmiU
mvtgwi tbr	62	mvtgwi tbr
t`rfvmbqv	20,300	j gRvbr
tµvtqwkqv	56,500	RvMtie
emubqv nvrMwvfbv	68,300	mi vtqtfv
mveq̄v	77,141	tej tMŪ
tgm#Wmbqv	33,650	tgm#Wmbqv
Avj tēmbqv	28,860	wZi vbr
ej#Mwi qv	1,10,852	tmvdqv
Mām	1,32,090	Gt_Y
gvēv	316	tf t j Uv

tb`vij`vŪ ev nj`vŪ GKwU wPyt`k| t`kwU `yRvZ mvgMŪ iBmbi Rb` wL`vZ| Gi ivRavbx tnM| bitq I mBtWb`c`mŪtbfxq t`k wntmte cwipZ| dtYi cte<sup>o</sup> Aew`Z Rvgŵb c`lexi meftc`v Dbz t`k,tjvi GKwU| Gi ivRavbx evij`G GKwU wL`vZ kni| wZiq nekhtx Rvgŵb cĀq aŷsmcŪB ntq wMtuQj| epr kw<sup>3</sup>eM<sup>o</sup> RvgŵbK ce<sup>o</sup> cūōg GB`B Astk fvm Kti tbq| cti Dfq Ask`vaxbZv jvf Kti I GKwŪZ nq| dtY I Rvgŵb GB`B kw<sup>3</sup>kijx cĀZtekxi gvSLvfb Aew`Z mBRvij`vŪ cĀKwZK tmš`thP Rb` BDti vtci µxovfvg bvtg cwipZ| t`kwU chŵb I tnvŪj wkt`i Rb` wL`vZ|Gi ivRavbx evb<sup>o</sup> `mY BDti vtci Avti KūU wL`vZ t`k Mām|`B nvRvi eQtii I teuk mgq AvtM MĀK exi Avtj KRvŪvi cwi m` (eZŵv bvg Bivb) I cvĀvemn c`lexi AtbK t`k Rq Kti wQtj b| MĀmi ivRavbx Gt\_Y| BDti vtci ce<sup>o</sup>w`tK Aew`Z iwkv AvqZtbi w`K w`tq c`lexi epĒg iv<sup>o</sup> GiU c`lexi`B epr kw<sup>3</sup>i GKwU| iwkvqi GK nekij Ask Gwkvri AšMz ntj I GiU BDti vxcq iv<sup>o</sup> wntmteB AvāK cwipZ| iwkvqi ivRavbx gt`v| c<sup>o</sup>BDti vtci AvāKisk iv<sup>o</sup> bvbwea Kvi tY GLtbr Lg teuk mgw` AR<sup>o</sup> Ki tZ cvti w|

**4.3.2 BDtiṽci KtqKw t̄tki msṽB weiy**

BDtiṽci cṽq me t̄kB Dbz | Zte, BDtiṽci cṽḡvĀtj Aew-Z hṽivR, cZṽj, t̄úb, dṽY, tej ṽRqvg, nj ṽU, Rvgṽb tWbgvK, bil t̄q, mṽWb, BZij x cṽwZ. t̄k AwaKzi mgx | gvĀ AaKZvāx AvtMI cṽ\_exi AwaKvsk Abṽz t̄k hṽivR, dṽY, cZṽj ev t̄úṽbi `Ltj ṽQj | hṽivR" GKw ṽkṽvṽz t̄k | Gi ivRavb j Ūb cṽ\_exi AbZg tkḡ kni I e`i | GwU tUgm b`xi Zṽti Aew-Z | emṽṽvg, GwWbeiv I WwŪ hṽivR"i iṽcYṽkṽ kni | WwŪ cṽUṽkṽi Rb" weLṽZ | hṽivR" KtqKw tQvUeo ivR" ṽbṽ MvZ | hṽivR"i A`ṽi gj- BDṽvc f;LṽŪi Ask nt"Q dṽY | dṽYi ivRavb cṽm m GKw gṽbvg bMx | mṽmZ, ṽkṽ I ms`wzi RmṽZ cṽm m weLṽZ | dṽYi `ṽY cṽḡ ṽk Aew-Z t̄úb | t̄úṽbi Aww`R mṽvqZvqB Kj ṽm Avtṽv Kṽ Avneṽvi KṽiṽQj b | ṽKQKṽ AvtMI `ṽY Avtṽv Kṽ gṽv t̄ki AwaKvsk GjvKṽ t̄úṽbi Aaxṽb ṽQj | t̄úṽbi ivRavb gṽv` | dṽYi `ṽY-cṽBZvṽxi Ae`vb | BZij xi ivRavb tivg GKw cṽPxb bMi | cṽPxbKṽtj tivgṽv Lṽ Dbz ṽQj | cṽq mgMŪ BDṽvc, Gṽkqvi cṽḡ Ask Ges AvndKvi DĒi-ceṽAsk Zriv `Lj KṽiṽQj |

**mvisk**

tQvU I eo ṽgvj t̄q BDtiṽci tgvU 45wU `ṽaxb t̄k itqṽQ | eṽUb, Rvgṽb, BZij x, dṽY, ivkqv cṽwZ. BDtiṽci Dbz t̄k | AvqZṽbi ṽK t̄k ivkqv nj BDtiṽci Z\_v weṽkṽi meṽPṽtq eo t̄k | Gi AvqZb 23,00,892 eMṽKṽtj ṽgvUvi | AvqZṽbi ṽK ṽtq fṽwKṽb BDtiṽci meṽPṽtq tQvU t̄k | Gi AvqZb 0.18 eMṽKṽtj ṽgvUvi | BDtiṽci cṽq me t̄kB Dbz | Zte BDtiṽci cṽḡvĀtj i t̄k hṽivR, cZṽj, t̄úb, dṽY, tej ṽRqvg nj ṽU, Rvgṽb tWbgvK, mṽWb, bil t̄q, BZij x LṽB mgx | hṽivR"i ivRavb j Ūb weṽkṽi AbZg tkḡ kni I e`i | mṽRij ṽU cṽKwZK tmṽ`thṽ Rb" BDtiṽci ŪṽxovṽḡŪ bṽtḡ cṽiṽPZ |

**cuŋVĚi gj'vqb 4.3**

**mŋK DĚŋi i cuŋk ŋK (ŋ) ŋPŋ ŋ b|**

1. tQvU-eo ŋgij tŋ BDŋivŋci t`k msL`v KZ?  
(K) 54 (L) 45  
(M) 64 (N) 38
2. BDŋivc Z\_v ŋetkŋi metPŋtŋ eo t`k tKivŋU?  
(K) hŋŋ ivR` (L) t`-ub  
(M) iŋkqv (N) dŋŋ
3. tKivŋU ejŋŋMŋi qvi ivRavbx  
(K) gŋŋ` (L) tŋmŋdqv  
(M) Gŋ\_ŋ (N) ŋfŋqbv
4. AvqZŋbi ŋfiĚŋZ tKivŋU metPŋtŋ tQvU t`k?  
(K) Mŋm (L) gvĚv  
(M) Rvŋŋbx (N) f`ŋŋKiv
5. RŋMŋie tKiv t`ŋki ivRavbx  
(K) tŋvŋqŋqv (L) tŋmŋŋŋŋbqv  
(M) Avj tŋbqv (N) iŋŋbqv
6. dŋŋ I Rvŋŋb GB kŋ<sup>3</sup>kŋj x cŋZŋekx `ŋd t`ŋki gvŋS Aew`Z t`kŋŋi bvg ŋK?  
(K) mŋRvŋj`vŋ (L) mŋŋŋb  
(M) mŋbŋŋi tŋv (N) t`ŋfŋbqv

**DĚi : 1| L 2| M 3| L 4| N 5| K 6| K**

**msŋŋB cŋæ**

1. BDŋivŋci AĚj mŋŋŋK ŋK?

**iPbŋj-K cŋæ**

1. BDŋivc gŋŋŋ`ŋki KŋqKŋU t`ŋki msŋŋB eYŋŋ ŋ b|

**cW 4.4**

**BDtivtci Rjevqy**

**Dtiik**

**GB cW tktl AvciB**

- 1 BDtivtci RjevqyAAj , tj vi bvg RvbtZ cvi teb,
- 1 BDtivtci RjevqyAAj , tj vi meeiY w`tZ cvi teb,
- 1 gvbvPti RjevqyAAj , tj v c0k0 Ki tZ cvi teb,
- 1 tKvtrv RjevqyAAj tKvtrv tKvtrv t`k i tqto Zv Dtj L Ki tZ cvi teb|

**4.4.1 : BDtivtci Rjevqy**

BDtivtc bmvZkxtZv0 gUtj Aew`Z|uKszmgÿ<sup>a</sup> t`tK `iZi; D0 tmtZi cfi ve, tgiyEi Ae`vb, ceZi Ae`vb cfi vZ. Kvity BDtivtci weifbeAstK Rjevqy ZviZg` t`Lv hq|lcti ewyZ vbqvK, tjv metePbv Kti BDtivtcK Pviu cavb RjevqyAAj ef<sup>3</sup> Kiv nq|

1. **ZyR RjevqyAAj** : bil tq, mBtWb, ucbj`vU l i mKqvi DEivsk DEi tgiyEi 66.5° DEti Aew`Z nI qvq GB GjvKv mnggUtj i AšMZ Ges G GjvKvi RjevqyZz` Rjevqyvtg cwi wPZ| GLvrb kvZ FZz`xN<sup>o</sup> kvZi XzeZv tevk| GLvrb cPj Zzvi cto Ges eQti c0q bq gvm fiq ei dveZ`vtK|
2. **bvZkxtZv0 RjevqyAAj** : Avlj wUK gnmvMti i DcKtj Aew`Z DEi cu0g BDtivtci bil tq l mBtWtbi`wYyisk, Rvg0x, dvY l t`utbi DEivsk, tejwRqv, tb`vij`vU, j ty gevM<sup>o</sup> tWbgvK<sup>o</sup> hÿivR` Ges AvBmj`vU G AAj i AšMZ| D0 DcmvMixq tmtZi ewaZ kvLv D0 DEi Avlj wUK c0v G AAj i cvk w`tq c0v nI qvq Ges tKvtrv AskB mgÿ<sup>a</sup> t`tK `ti bv nI qvq G AAj i Rjevqyngfievcb0 kvZKtj ew0cvtZi cwi givY tevk| kvZi XzeZv tevk bq|
3. **gvnt`kxq RjevqyAAj** : ce<sup>o</sup>BDtivtci tcj`vU,`wYy ucbj`vU, Gt`lvbqv, jvUwfvq, wj`ybqv, igvnbqv, evBtjv i mKqv, i mKqv, BDtub, RvR0v, Avtg0qv, AvRvievBRvb Ges KvRvK`itbi cu0gvsk G AAj i AšMZ| G AAj mgÿ<sup>a</sup> t`tK AtbK `ti Aew`Z| DEti i kvZj evqyG AAj i lci w`tq c0v nI qvq nq| kvZ Kvj kvZi XzeZv AtbK tevk| M0Kvjtj cu0gv evqy cfi ve mivb` ew0cvZ nq| kvZKtj kvZi XzeZv AtbK tevk| cu0gv evqy cfi ve M0Kvjtj mivb` ew0cvZ nq| ce<sup>o</sup>w`tK ew0cvtZi cwi givY mgk nvm cvq| GRb` GB AAj i RjevqyK Pigfievcb0gvnt`kxq Rjevqy etj |
4. **fga`mMixq RjevqyAAj** :`wYy BDtivtc fga`mMti i Abw`ti cZ0j,`wYy t`ub,`wYy dvY, BZvjx, Avj tevbqv, M0m, BDtivtcxq Zz` Ges fga`mMixq 0xc KvmRv, miv`0qv, wmwuj l mxU G AAj i AšMZ| M0Kvjtj

mhKiy cLi ntjI mgÿi cFvte DòZv Kg \_vK| kxZKvtj kxZI cKvc  
teik nq bv| cãvbZ kxZKvtj B epó nq, MÿKij i<sup>®</sup>\_vK|

**mvisk**

BDtivtci AnaKisk GjvKv bmvZkxZvò gÚtj Aew-Z| mgÿ<sup>a</sup>t\_tK`i-Z; Dò tmñZi  
cFve, tgiyeÿÈi Ae<sup>-</sup>vb, ceÿZi Ae<sup>-</sup>vb BZ<sup>im</sup> KviÿY BDtivtci weifbæGjvKvq  
Rj evqÿ Zvi Zg<sup>o</sup> t`Lv hvq| BDtivtcK PviU Rj evqÿgÚtj fVM Kiv hvq| h<sub>v</sub>- Zy<sup>o</sup>  
Rj evqyAAj, bmvZkxZvò Rj evqyAAj, gnv<sup>t</sup>`kxq Rj evqyAAj I fga<sup>im</sup>Mixq  
Rj evqyAAj | <sup>im</sup>Útbwfvb (wdbj<sup>v</sup>Ú, bil<sup>t</sup>q, mÿWb) t`kmg<sup>a</sup> DEivsk Ges  
ivkqvi DEifvM Zz<sup>o</sup> AAj ev wnggÚtj i AšMÿ| AvUj wUK gnv<sup>im</sup>M<sup>ti</sup>i DcK<sup>tj</sup>  
Aew-Z t`kmg<sup>ni</sup> DEi-cwðg BDtivtci bmvZkxZvò Rj evqyAA<sup>tj</sup> i AšMÿ| ce<sup>®</sup>  
BDtivtci t`kmg<sup>tn</sup> gnv<sup>t</sup>`kxq ev Pigfievcbæ Rj evqyt`Lv hvq| fga<sup>im</sup>M<sup>ti</sup>i  
DcK<sup>tj</sup> i AAj mg<sup>tn</sup> fga<sup>im</sup>Mixq Rj evqyt`Lv hvq| BDtivtci AnaKisk <sup>v</sup>tb  
epócv<sup>t</sup>Zi cwi gvY 50 tm. wq. n<sup>t</sup>Z 150 tm.wq. ch<sup>š</sup>|

**cuŋVĒi gj'vqb 4.4**

**mŋK DĒŋi i cuŋk ŋK (ŋ) ŋPý ŋ b|**

1. BDŋivŋci Rj evqygŪj ŋK KqŋU fiŋM fiM Kiv nŋqŋQ?

(K) 2ŋU

(L) 3ŋU

(M) 4ŋU

(N) 5ŋU

2. Zŋŋ AĀj eQŋi Kq gym ei dv"Qbæ\_vŋK?

(K) 6 gym

(L) 9 gym

(M) 10 gym

(N) 12 gym

3. BDŋivŋci bŋZkŋZvò Rj evqyAĀŋj eQŋi i tKŋb FZŋZ meŋPŋq tenk epócvZ nq?

(K) kir Kŋŋj

(L) emšŋ Kŋŋj

(M) kŋZ Kŋŋj

(N) Mŋŋŋ Kŋŋj

4. BDŋivŋci tKŋb Rj evqyAĀŋj kŋZKŋŋj epócvZ nq Avi Mŋŋŋ Kŋŋj i'ŋ\_vŋK?

(K) Zŋŋ AĀŋj

(L) bŋZkŋZvò Rj evqyAĀŋj

(M) gŋvŋŋ kŋq Rj evqyAĀŋj

(N) f-ga'mŋMŋxq Rj evqyAĀŋj

**DĒi : 1| M 2| L 3| M 4| L**

**msŋŋB cŋæ**

1. fga'mŋMŋxq Rj evqyAĀŋj i ŋeeiY ŋ b|

**iPbŋj-K cŋæ**

1. BDŋivŋci Rj evqy ŋeeiY ŋ b|

**cW 4.5**

**BDtiwtci b`-b`x l nã**

**Dt`ik`**

**GB cW tk`l Avci b**

- 1 BDtiwtci cãvb b`-b`xi bvg ej tZ cvi teb,
- 1 Dtj l thvM` b`-b`xi DrctE`j Dtj l KitZ cvi teb,
- 1 cãvb b`-b`xi ``N`ej tZ cvi teb|

**4.5.1 : BDtiwtci b`-b`x l nã**

cãpxb Kyj t`tk bre` b`x l Lvj c\_B emYR` c\_ wntmte e`eüZ ntq AvmtQ| wtkl Kti Avst` kxq Rj c\_ ej tZ b`x, nã Ges Lvj tKB e`svq| BDtiwtci gnt`tk tQvU eo wgvj tq AmsL` b`-b`x itqtQ|BDtiwtci GKgvI Dtj l thvM` nã Kõ. mvmi | `wbgq, i vBb l fêv G wZbwU eo b`xB BDtiwtci cwienb Kvtr , i zcy`fugKv cvj b Kti |

**4.5.2 : BDtiwtci cãvb cãvb b`-b`xi wci Y**

- 1. `wbgq : Gi ``N` 2,777 wK.wg| hwi l fêv BDtiwtci `xNzg b`x Zely `wbgqK BDtiwtci tkõ b`x ejv nq| Gi 2,576 wK.wg. c\_ bre`| GiU Rvgfbi Avixq ewK dti ÷ ceZ ntZ DrctE` jvf Kti tQ|
- 2. i vBb : Gi ``N` 2,223 wK.wg. | Gi 805 wK.wg c\_ bre`| GiU Avim ceZ ntZ Drctentq DËi mvmi cWZZ ntqtQ|
- 3. b vBv : Gi ``N` cãq 4,186 wK.wg. |
- 4. w f i j v Ges l wvi : w f i j v l l wvi ga` BDtiwtci D`P fug ntZ Drctentq ej wUK mvmi cto tQ|
- 5. f j Mv : BDtiwtci `xNzg b`x f j Mv (3685 wK.wg.) cwõg i wkvqi f j `vB cvnvo ntZ Drctentq Kw`úqvb mvmi cWZZ ntqtQ| tctPriv Ges fBbv b`x DËi gnmvmi cWZZ ntqtQ|  
GQvov Rvgfbi Gje Ges Bsj `vÜi vBb, wJR l tUgm b`x DËi mvmi cWZZ ntqtQ| Kõ. mvmi cWZZ b`x, t j vi gta` `wbgq, Wb, wbcvi l w b ÷ vi cãvb|  
BDtiwtci AtbK nã AvtQ| Gt`i gta` Avim AA t j i tRtbfv, j yvY, Rvj L, g`wRI ti, Mv`v, Kb ÷ vY, i wkvqi l t b Mv, t j t f Mv, m b t W t b i t f Uvi Ges wdbj `vÜi Bbvix cãm x |

**mvisk**

fj Mv BDtivtci `xNŹg b`x| GwU iwkqvi fj Mv ceŹ t\_#K Drcbentq K`w`úqvb  
mvMti ctotQ| `wbg b`x evK dti ÷ t\_#K Drcbentq Kò. mvMti i cwZZ ntqtQ|  
GwU BDtivtci wŹxq `xNŹg b`x| ivBb b`x Avítm Drcbentq DEi mvMti cwZZ  
ntqtQ| Ab`vb` iŹcY`b`x,tjv nt`Q Wb, w ÷ vi, Gje, tUgm, I Wvi BZ`w`|  
BDtivc I Gwkqvi gvŹS Aew`Z Kvw`úqvb D#j L#hvM` n` | Gi AvqZb cŹq 3 j ¶ 72  
nvRvi eM`K.ig. | GwU jeYv<sup>3</sup> cmbi n` |

**cvVvEi gj`iqb 4.5**

**mwK DEti i cvk wK (v) wPy w`b|**

- BDtivtci `xNŹg b`x tKvbwU?  
 (K) Wb (L) Gje  
 (M) fj Mv (N) `wbg
- `wbg b`xi `N`KZ wKtj wqUvi?  
 (K) 227 wK.ig. (L) 2227 wK.ig.  
 (M) 772 wK.ig. (N) 2777 wK.ig.
- wfijv I I Wvi b`x tKvb mvMti cwZZ ntqtQ?  
 (K) Kò. mvMti (L) evj wK mvMti  
 (M) Kvw`úqvb mvMti (N) tj wvZ mvMti

**DEi : 1| M 2| N 3| L**

**mswB cŹkEi**

- BDtivtci c`vb KtqKwU b`xi big wj Lty
- `wbg Ges ivBb b`xi `N`KZ?

**iPbgj-K cke**

- BDtivtci c`vb b`-b`xi weei Y w`b|

**cw 4.6**

**BDtiwtci iki**

**Dfik**

**GB cw tktl Avcub**

- 1 BDtiwtci iki vAj, tj vi big RvbtZ cvi teb,
- 1 BDtiwtci cavb cavb iki, tj vi weei Y w tZ cvi teb|

**4.6.1 : BDtiwtci iki vAj**

BDtiwtci cavb iki vAj, tj v| h\_v-

- 1. DEi cwOgvAj i iki vAj,
- 2. mvtEK tmvftqZ BDubgtbi iki vAj |

BDtiwtci DEi cwOgvAj i gta hYivR, dvY, tej wRqvg, tb vij vU, Rvgvbx, bil tq, mBtWb, j t geiM, mBRvij vU, tPK Ges tkwfmKqv itqtQ|  
 Aciw tK ik idWtiktbi iki vAj gt v, Uzv, tj wj bMw, Divj, eKuj n, emv f ÷ K AAj wtq MvZ |

**4.6.2 : BDtiwtci cavb cavb iki**

**K. tj Sn I B uvZ iki**

AvanbK hM tj Sn I B uvZ iki i cOqvRb metPtq tenk | Ab vb iki i wvE Gi Dci wbfPkj t k iwikqv t kmgw, Rvgvbx, BUvj x, dvY, tPtKv t wfmKqv, hYivR cfwZ. t k tj Sn I B uvZ iki wtkl DbwZ j v f Kti tQ | BDtiwtci Gme t k tj Sn I B uvZ wbgZ mvgMw w t k idZvnb Kti |

**L. cz iki**

tj Sn I B uvZ iki Ges v Kwi Mwi we vi Dci wbfP Kti th iki Mto I tV ZvtK cz iki etj | Kw. I iki i hscwZ, cw enb iki h\_v- tij, wegvb, RvnuR, tgvUihvb cfwZ iki, e yZK hscwZ iki cz iki i ASMZ | GB iki i iwikqv, Rvgvbx, hYivR, BZvj x, dvY, tej wRqvg, mBRvij vU, tPtKv t wfmKqv, mBtWb cfwZ t k DbwZ | Gme t k cz iki RvZ e w idZvnb Kti |

**M. eqb iki**

eqb iki, tj vi gta Kvcw eqb iki, ckg iki, tikg iki, cvU iki B cavb | GB gnv t k i iwikqv, hYivR, tcvj vU, igvmbqv, ej t Mwi qv, nvt 1/2 ix, Rvgvbx I dv t Yi eqb iki i L v mZ itqtQ | K v gvt j i chwBZv, Av e Rj evqy Kaj vLwb, cvnb we y kw<sup>3</sup>, M v m Ges emv w R K mveavi Rb GB AAj eqb iki i DbwZ ntqtQ |

**N. KvMR iki**

mf mgvtR KvM t Ri cOqvRbxqZv Acwi mxg | Pxb t k me cOg KvMR Zix nq | eZgvb wtkj cOg mKj t k B KvMR Zwi nq | BDtiwtci iwikqv, mBtWb, tej wRqvg, bil tq, Rvgvbx, dvY Ges hYivR KvMR Zwi nq | Gme t k KvMR idZvnb Kti |

**O. wmtgU iki**

emvNi, iv vNVU Zwi Kivi Rb wmtgU, izcY DcKiY | cOwZK Dcv v tbi gta K v gvt j, kw<sup>3</sup> m v u, Rj evqy Ges A w ZK Dcv v tbi gta gj-ab, klgK, m j f cw enb I emv w R K e e vi AbKj- cw i t k wmtgU iki Mto I tV | Pgv cv i, wRcmvg, K v vgvU cfwZ. wmtgU iki i K v gvt j | BDtiwtci iwikqv, BZvj x, Rvgvbx,

dvY, t`ub, Zz`c, tcuj`vU, h9ivR` I nvt2ix c0jy wmtgU Drcv`b Kti |  
Drcv`bKvix t`kmgR wmtgU idZvnb Kti |

**P. Ab`vb`**

wkf`i gta` ivmqubK wk`i I ivevi wkf`i BDfivtci AfbK t`tki L`vWZ itqtQ | wewfbae  
Jl9cT, c0hvb mvgM0, wettuviY `e`v, Kul.mvi, is, cvbxq Rj BZ`v` ivmqubK  
wk`i | ivevi RvZ mvgM0i gta` itqtQ hubevntbi Uvqvi, wUDe, Mw`, RzV, e`vM, ewj k,  
tLjvi wRvbmcl, ej, c9z BZ`v` | tnwfvq e0wuj tqbwm bvgK MtQi im t`tk Ges  
Kwlg Dcvtq ivevi `Zwi Kiv nq | ivevi Drcv`tb BDfivtci iwkvq Ges dvtYi `vb  
wefk! h`vmtg w0Zxq Ges PZZ9 GOvov Rvgfbx, BZvj x, tb`vij`vU ivmqubK I ivevi  
wkf`i ht`o Dbz |

**mvisk**

BDfivc gnvf`tki clq me t`kB wkf`ivbz | DfjLthM` wkf`i gta` itqtQ tjvnu I  
B`uvZ wk`i, e`jwk`i, ckg I tikg wk`i, eqb wk`i, ivmqubK wk`i, tiqb wk`i c0vWZ |  
h9ivtR`i Mm0Mv AAj, nj`vtUi iUvW9 I Avg`vW9, m9tWtbi MtU0M`Ges  
iwkvqvi tj wbbM0t` BDfivtci Rvnr wk`i ,tjv Aew`Z |

**cvtVvEi gj`vqb 4.6**

**mWK DEti i cvtk wK (-) wPy`w b |**

1. clq mKj wkf`i i wfvE wntmte tKvb wk`i tk aiv nq?  
(K) tj Sn I B`uvZ wk`i (L) mvi wk`i  
(M) ivevi wk`i (N) Jla wk`i
2. tKvbwU cZ9wk`i bq?  
(K) cwi enb wk`i (L) eqb wk`i  
(M) Kul. I wkf`i i h9cvmZ (N) `e`jvZK h9cvmZ
3. KvMR wk`i me`clg tKvb t`tk Mto I fv?  
(K) M0m (L) dvY  
(M) Pxb (N) Nvbn
4. tKvbwU wmtgU wkf`i i KvRvgvj bq?  
(K) wRcmvg (L) P9vci\_i  
(M) Kv`gvU (N) Avtqvw/b

**DEi : 1 | K 2 | N 3 | M 4 | N**

**msv7B c0e**

1. BDfivtci wk`i vAj mgr`wK wK?

**iPbvj-K c0e**

1. *BDiivci cãvb cãvb wki i weiy w b|*

**cW 4.7**

**BDtiwtci ebR maw`**

**DtiK`**

**GB cW tkli AvciB**

- 1 BDtiwtci ebR maw` , tji vi bvg RvbtZ cvi teb,
- 1 BDtiwtci ebR maw` i weeiY w` tZ cvi teb|

**4.7.1 : BDtiwtci ebR maw`**

ebfiwg ntZ AvniZ th maw` ZvBB ebR maw` | RvZxq RxeTB GB maw` i gj` Acwi mxg| ebfiwg cZ` qI I ctivqI fite gvbtjI AtkI Kj` vY mvab Kti | ebfiwg ntZ cvlqv hvq weifbawktI i Kxvgyj , KvV, Rvj vbx KvV, ci cvLx, im, gaytgvq I weifbawktI cOYxR wWg BZ` w | BDtiwtci AtbK t` kB ebR maw` mgx` | Kul. KvthP cOqvRtb BDtiwtci Awakvsk AAj tk Kul. RvgtZ cwiYZ Kiv ntqtQ| mgMocw extZ 30,311 j qI tn±i ebfiwg itqtQ| BDtiwtci ebfiwgi cwi gvY 3,137 j qI tn±i |

**4.7.2 : BDtiwtci ebR DwiC**

BDtiwc eZqvtb` rfiweK DwiC` i gta` cYqgvPx etqIi cOavb` tenk t` Lv hvq| DEi BDtiwtci Zz` AAjt` kevj, Nvm I , jvt` LtZ cvlqv hvq| Zz` AAjt` i` wqIY evP, dvi, t` cm, cvBb cfwZ. mij eMiq e` Rtb` | wqIYce` i wkwqvq I nvt` ixi mgfiwtZ t` cm&ZY.fwg t` Lv hvq| AvUj wUK gnvmMti DcKtj Aew` Z t` kmgtj cYqgvPx etqIi eb AvtQ| IK, exP, Gjg, DBtjv GB AAjt` i cOavb e` | f- ga` mMixq AAjt` `xNqj- wPinwir e` Rtb` | KK, Rj cvB Rtb` | GLvtb Kw` uqv mvmMti DcKtj , j` fwg AvtQ| mgM0 BDtiwtci tgvU ebfiwgi cOq GK ZZxqvsk GKgvI i wkwqvZB AvtQ| BDtiwtci mBtWb, wdbj` vU, mBRvij` vU, dvY, RvgRbx, BZvj xZ mij eMiq e` ntZ cPj KvV AvniY Kiv nq| mBtWb cPj KvV idZwv Kti | dvY, RvgRbx, mBtWb I BZvjx ebfiwgi KvV Oviv KvMR, tcwYj, t` lqvj Nwoi tdg, Kw` g tikg, w` qvkj vB cfwZ. eu cOqvRbxq `e` w` cOZ I idZwv Kti |

**mvisk**

mgM0BDtiwtc 3,137 j qI tn±i Gjkvq ebfiwg itqtQ| cYqgvPx I mij eMiq ebfiwg mgvB BDtiwtci tmiv ebfiwg| f- ga` mMixq AAjt` `xNqj- wPinwir e` Rtb` | BDtiwtci GK ZZxqvsk ebfiwg i wkwqvZB itqtQ| mBtWb cPj KvV idZwv Kti |

**cuŧVŧĒi gj-ŧqb 4.7**

**mŧWK DĒŧi i cuŧk ŧWK (ŧ) ŧPŧ ŧ ŧ b|**

1. mgMŌŧeŧk; ŧgvU ebfiŧi cuŧi gvY KZ?  
(K) 33,111 j ŧ ŧ ŧnŧi (L) 30,311 j ŧ ŧ ŧnŧi  
(M) 30,0021 ŧnŧi (N) 21,001 j ŧ ŧ ŧnŧi
2. mgMŌBDŧi ŧŧci ŧgvU ebfiŧi KZ Ask GKgvŧ i ŧŧkqvŧZ AeŧŧZ?  
(K) GK ZZŧqvsk (L) ŧŧ ZZŧqvsk  
(M) GK PZŧŧk (N) ŧŧb PZŧŧk
3. BDŧi ŧŧci KZ j ŧ ŧ ŧnŧi RŧŧŧZ ebfiŧi i ŧŧŧŧ?  
(K) 13,337 ŧnŧi (L) 1,373 ŧnŧi  
(M) 3,137 ŧnŧi (N) 7,331 ŧnŧi
4. ŧŧŧY-ceŧŧ ŧŧkqv Ges nŧŧŧxi mgfiŧŧZ th ZY.fŧŧ ŧŧ Lv hvq Zvi bvg ŧK?  
(K) ŧKŧ (L) WŧDŧŧ  
(M) ŧkŧ (N) ŧŧŧm
5. BDŧi ŧŧci ŧKvb ŧŧk cŧŧy Kw idZŧvb Kŧi?  
(K) mŧŧWb (L) mŧŧRvi j ŧŧŧŧŧ  
(M) Rŧŧŧŧ (N) BZŧŧx

**DĒi : 1| L 2| K 3| M 4| N 5| K**

**msŧŧŧB cŧŧe**

1. mgMŌBDŧi ŧŧc ebfiŧi cuŧi gvY KZ?
2. BDŧi ŧŧci ebfiŧi KŧŧKŧŧ eŧŧŧi bvg ŧj Lŧy|

**iPbŧŧj-K cŧŧe**

1. BDŧi ŧŧci ebfiŧi ŧŧeiY ŧ ŧ b|

**cW 4.8**

**BDtivtci kwi³ mæú`**

**Dt'ik`**

**GB cW tktl AvciB**

- 1 BDtivtci kwi³ mæú` ,tj vi big RvbTZ cvi`teb,
- 1 BDtivtci kwi³ mæú` ,tj vi weeiY w`tZ cvi`teb,
- 1 BDtivtci kwi³ i Dm wntmte Kajv, tctUtnj qvg, AvbieK kwi³ I cmb we`jtZi Drcv`bKvix t`k ,tj vi big Dtl Kitz cvi`teb|

**4.8.1 BDtivtci kwi³ mæú`**

kwi³ mæú` wntmte Kajv, tctUtnj qvg, AvbieK kwi³ Ges cmb we`j kwi³B Dtl tthvM`| chß MtelYv I tPóvi dtj BDtivtci Dbz t`k ,tj v D³ Pri cKvi kwi³ mæú` i t¶tB mgx jvf KitiQ|

**K) Kajv**

ivbwi Rjvbx wntmte Kajv eü ceRij ntZB e`eüZ ntq AvmtQ| Avank hš; mf`Zvi Dbzi gtj I itqtQ Kajv|erúxq kwi³ Drcv`tbi Rb` KajvtK cPj cwigvY e`envi Kiv nt`Q| tij Ges w`gvtti BwÁtb Kajv cwtq erúxq kwi³ Drcv`b Kti Zv KvR jvwtbv nt`Q| weÁvbxiv we`kl e`e`vq Kajv ntZ tctUtnj , M`vm, wltRj, `Zj, Rjvbx tZj cÜZ Kti| BDtivtci iK tdWtikiB, hšivR` Rvgbx tPtkvKvFvKqv, dvY, tejwRqvg, t`úb, nv½ix Av`qv, igmbqv, BZvjx, mBtWb, cFwZ. t`k Kajv kwi³ e`envi KtiB mgx t`tk cwiYZ ntqtQ|

**L) tctUtnj qvg**

f-Mf` wefbcakjv`li ntZ DtEviZ tZj tK LwbR tZj ev tctUtnj qvg ejv nq| Gi eüglx e`envi eZgvb hšM gvbytk bvbwea fite tctUtnj qvtgi Dci wbfPkj Kti tdtj tQ| cwi enY t¶t, wki KviLvbrq Avtjv I Av`b RjvtZ, Kwl. t¶t, kwi³ Drcv`tB tctUtnj qvg e`eüZ nq| BDtivtci mteK tmwftqZ iwkqmn Ab`vb` t`k thgb- hšivR`, igmbqv, Rvgbx, dvY, tb`vij`vÜ, Avjtenbqv, nv½ix, tcvj`vÜ cFwZ. t`k tctUtnj qvg DtEviZ b Kti| iK tdWtikiB 1993 mtj 35 tKwU tguUKub tctUtnj qvg I LwbR tZj DtEviZ b Kti|

**M) AvbieK kwi³**

weÁvbxiv BDtiubqvg, t`wi qvg, nvBtWtRb, cjtUmbqvg I wjw qvg- GB 5 wU tgšij K Dcv`vb t`tk cvigvbieK kwi³ Drcv`b Kti| eZgvtb mgMöcwx exi fvm` wbfP Kitz cvigvbieK kwi³ mwóKvix ev aYsmvZK ¶lgZvtK e`envi Kivi Dci| BDtivtci mKj t`k cvigvbieK kwi³ Drcv`b Kitz GLbl m¶g nqub| iwkqv, bil tq, dvY, BZvjx, mBtWb, mBRij`vÜ, Av`qv, Rvgbx, hšivR` cvigvbieK kwi³ Drcv`b I e`envi Kti|

**N) cumb-ue`y kwi³**

b`x I Rj c`vZi cumbi MuzteM nZ hšj minvth` th ue`y kwi³ Drcv`b Kiv nq ZvK cumb ue`y kwi³ etj | cumb-ue`y kwi³i GKK ÒAK! kwi³” (Horse Power msf`c HP) intmfe cwi gvc Kiv nq | 1993 mtj i vnkqv 72 j ¶, dvY 60 j ¶, BZvj x 60 j ¶, bi l t q 52 j ¶ Ges Rvgf`x 40 j ¶ uKtj vl qvU Ak!kwi³ cumb ue`y Drcv`b Kti tQ |

**mvisk**

BDti vci c`q mKj t`kB kwi³ m`u` Drcv`b I e`envi Kti | kwi³ m`u` intmfe Kqj v, tctU`nj qvg, AvbieK kwi³ I cumb-ue`y kwi³i bvg Dtj L`thvM |

**cvtW`Ei gj`iqb 4.8**

**mWk D`E`i i c`k uK (v) iPy`v b |**

1. er`uxq kwi³ Drcv`tbi Rb` tKivU i e`envi tenk?
 

(K) Kqj v	(L) c`KuzK kwi³
(M) AvbieK kwi³	(N) cumb-ue`y kwi³
  
2. 1993 mtj i g` tdWv`i kb KZ tKvU tgvUKUb tctU`nj qvg ev LubR tZj D`E`v b Kti?
 

(K) 15	(L) 25
(M) 35	(N) 45
  
3. 1993 mtj i vnkqv KZ j ¶ Ak!kwi³ cumb ue`y Drcv`b Kti?
 

(K) 40	(L) 52
(M) 60	(N) 72
  
4. 1993 mtj dvY`i cumb ue`y Drcv`tbi cwi gvY KZ uQj?
 

(K) 60 j ¶ Ak!kwi³	(L) 50 j ¶ Ak!kwi³
(M) 40 j ¶ Ak!kwi³	(N) 30 j ¶ Ak!kwi³

**D`E`i : 1 | K 2 | M 3 | N 4 | K**

**msv`f`B c`k`e**

1. BDti vci kwi³ m`u` i bvg vj Lg |

**iPbvj-K c`k`e**

1. BDti vci kwi³ m`u` i ueiY`v b |

**cW 4.9**

**BDtivtci LibR mru`**

**Dik`**

**GB cW tkfI AvciB**

- 1 BDtivtci Dti LthvM` LibR mru` ,tj vi biv RvbZ cvi teb,
- 1 BDtivtci tKv\_vq tKvb ,iZcY@LibR mru` cvl qv hvq Zv Dti L KiZ cvi teb|

**4.9.1 : BDtivtci LibR mru`**

BDtivtci LibR mru` mgx| LibR mru` ,tj vi gta` Kajv I tj sn cava| BDtivtci Ab`vb` LibR `te`i gta` cOKuZK M`vm, Zivg, `v, e- vBU, cmUvbg, tμvgnBU uUv, Gjvgnbqv, mμv, g`v`vnbR cFvZ. cava|

**4.9.2 : BDtivtci ,iZcY@LibR mru` i cOB`vb**

**K) Kajv**

Kajv kv<sup>3</sup> Drcv`K LibR| BDtivtci Avakisk t`kB Kajv Drcv`b Kti| G gta` h`ivR`, Rvgv, iμqv cava Kajv Drcv`bKvix t`k| dvY, BUvjx mBtWb cFvZ. t`k Kajv Avg`vb Kti| Dctiv<sup>3</sup> mKj Drcv`bKvix t`kB Kajv idZvb Kti| vekt; mμZ Kajvi kZKiv 13.2 fVM BDtivtc itqtQ|

**L) tj sn**

tMuv BDtivtci gnv`kUvB tj sn Avkvi tK mgx| iμqv mBtWb, dvY, h`ivR`, Rvgv Ges t`vb cPj cμqvY tj sn Avkvi K Drcv`b Kti| Drcv`bKvix Gme t`k Avei Avkvi K tj sn idZvb Kti|

**M) cOKuZK M`vm**

Mp`jx iUv Kvth,`kí KviLvq, `Zj, tkvabi Rjvbx, MtelyvMti M`vm e`envi Kiv hvq|Drcv`bKvix t`k vnvte iμqv, nj`vU, igvbnqv, h`ivR`, bil tq mgwi vPZ| Zte BDtivtci tKvtr t`kB cOKuZK M`vmtm `qsmruY`bq| Drcv`bKvix t`k ,tj v uKOycvi qvY cOKuZK M`vm idZvb Kti|

**N) Zivg**

Zivg cPxb Kvij GgbuK ga`h`MI cOq Lvu Ae`vq Lib ntZ cvl qv thZ| BDtivtci iμqv, t`vb, Rvgv, bil tq, tcvj`vU I mBtWtb Zivgi Lib AvtQ| Zivg Drcv`b iμqv vekt; PZz`Ges tcvj`vU Aog| h`ivR`, dvY, Rvgv, BZijx Zivg Avg`vb Kti|

**O) `~l**

`~l bgbxq Ges gwiPr ubeviK avZz Zvgvi mvt\_ `~l ugnktq ucZj cŃZ Kiv nq| BDtivtci tcij vU, RvgfŃx, BZij x, mŃWb, bil tq, i mtkqv I tej uRqvtg cŃj `~l Drcw Z nq| Drcv bKvix mKj t`k B `~l idZmb Kti |

**P) e· vBU**

avZe Gj ugnbqvqg ub®vktb I ivmivubK iktf e· vBU e`eüZ nq| i mtkqv, mteK hŃMv mfvq, Mm Ges nustMix e· vBU Drcv`b Ges idZmb Kti | hŃivR, dvY e· vBU Avg`vnb Kti |

**Q) ~Y®**

~Y®AvZ D¾aj, AZ`sl fvi x I gj`evb avZz AvšR®ZK emvYfR` GUv ueibgg gŃj| AvZ cŃPxb Kij t`k B GUv Aj sKvi I gŃj ubgŃY e`eüZ ntq AvmtQ| i mtkqv ~Y® Drcv`b cŃ\_extZ cÂg `vb Avakvix t`k| BDtivtci mteK tmvftqZ i mtkqv i tKvuj gv, Gvj Wvb, eKvj nt`i ZxieZ® Gj vKv mivBtemi qv Ges BDivj AÂtj ~Y® Lvb tj v Aew`Z| cŃ\_exi 17% fivM ~Y®GB Gj vKv ntZ DfEvmj Z nq|

**R) tµvngqvqg**

tµvngqvqg A`\_i vPvKrmvi mivgM®, ^ZRmcT, hibevntbi DcKiY, e`jvZK mivgM® BZ`w` ^Zwi KitZ e`eüZ nq| i mtkqv, Zz®, vdbj vU tµvngqvqg Drcv`b Ges idZmb Kti | tµvngqvqg Drcv`b i mtkqv vekt; vZixq| hŃivR, RvgfŃx I dvY tµvngqvqg Avg`vnb Kti |

**S) vub :** Ntii Qv, c`vks ev· I cvZ cŃZ KitZ vub e`eüZ nq| BDtivtci hŃivR, RvgfŃx, i mtkqv cŃvZ. t`k vub Drcv`b I idZmb Kti | BDtivtci gta` hŃivR` metPtq tenk vub Drcv`b Kti | BDtivtci Ab`vb` t`k Kgtenk vub Avg`vnb Kti |

**T) G`vj ugnbqvqg**

Mq`ij i ^ZRmcT, e`jvZK hšcvwZ, Gti vtcb, tij Mmo, tgvUi Mmo, A`k`\_i ^Zwi KitZ G`vj ugnbqvqg e`envi Kiv nq| BDtivtci i mtkqv, bil tq, dvY, hŃivR, RvgfŃx, BZij x, Avqij vU G`vj ugnbqvqg Drcv`b Kti |

**U) g`v½vnbR**

g`v½vnbR tj šntK `p KitZ I B`uvZ ^Zwi KitZ e`eüZ nq| Zivrov Gbrtgj, cvw`K, KvŃ, emvYR, e`vUmi, vevPs cvDvvi cŃvZ. ^Zwi KitZ g`v½vnbR e`envi Kiv nq| BDtivtci i mtkqv, RvgfŃx, tPtKv`vfvvKqv cŃvZ. t`k cŃj cvi gvtY g`v½vnbR Drcw Z nq| g`v½vnbR Drcv`b i mtkqv vekt; cŃ\_g| hŃivR, RvgfŃx, dvY, tej uRqvqg g`v½vnbR Avg`vnb Kti |

**V) mxxv**

mxxv mvari YZ tišc` I `~li mvt\_ ugnkZ \_vtK| Qvcvi UvBc, M`vm, e`vUmi, e`\_kKi \_uj, hšcvwZ, Sij vB cŃvZ. KvR mxxv e`eüZ nq| BDtivtci RvgfŃx, t`ub, hŃivR, ejtMvi qv, BZij x Ges uvmuj I mivvŃvq Ńxtc mxxv Drcw Z nq| RvgfŃx I

t`úb meþPq tenk cwigvY mxmv idZvb Kfi | Aciw`K hÿivR" I Mm mxmv  
Avg`vb Kfi |

**mvisk**

BDtivtci cġ mKj t`tkB tKvfbv bv tKvfbv LwbR cvl qv hvq| LwbR m`ú` BDtivc mgx|LwbR m`ú` t`jvi gta` Kajv, tj`sn, cġKwZK M`vm, Zvgv, `´í, wUb, G`ij wubqvg, `Y© m`mv Ges g`v`vwbRB cġvb| BDtivtci i`vkqv, h`y`ivR`, Rvgfbx, BZvjx, tej wRqvg LwbR m`ú` mgx|

**cvwEi gj`iqb 4.9**

**mWK DĒi i cvk wK (v) wPy w`b|**

1. wtkj m`wAZ Kajvi kZKiv KZ f`wM BDtivtc AvtQ?  
 (K) 1.32 (L) .132  
 (M) 13.2 (N) 132 f`wM
2. Zvgv Drcv`tb i`vkqv wtkj KZZg `vtbi AwvKvix t`k?  
 (K) cġg (L) PZz©  
 (M) Ió (N) Aóg
3. c`w`exi kZKiv KZ f`wM `Y© i`vkqv I Gi Avtk cvk GjvKv n`z D`E`wvj Z nq?  
 (K) 17 (L) 27  
 (M) 37 (N) 47
4. BDtivtci tKvb t`k metP`tq te`wk wUb Drcv`b Kti?  
 (K) i`vkqv (L) Rvgfbx  
 (M) tej wRqvg (N) h`y`ivR`
5. BDtivtci tKvb t`k metP`tq te`wk m`mv idZvnb Kti?  
 (K) t`úb I Rvgfbx (L) i`vkqv I ejtMwi qv  
 (M) dvY I BZvjx (N) nj`vU I h`y`ivR`

**DĒi : 1| M 2| L 3| K 4| N 5| K**

**mswB cġe**

1. BDtivtci LwbR m`ú` t`jv wK wK?

**iPbuj-K cġe**

1. BDtivtci LwbR m`ú` i w`eiY w`b|

**cW 4.10**

**BDtiṽci grm̄ m̄ú`**

**Dti`k`**

**GB cW tk̄l Avcib**

- 1 BDtiṽci grm̄ m̄ú` i weeiY w̄ tZ cviṽeb,
- 1 BDtiṽci aZ mvḡy`K grm̄, t̄j vi bvg ej tZ cviṽeb,
- 1 iḡ tdWti kb Ges bil t̄qi grm̄ w̄k̄t̄i i eYḡv w̄ tZ cviṽeb/

**4.10.1 : BDtiṽci grm̄ m̄ú`**

BDtiṽci grm̄ t̄ḡt̄ b`-b`x, Lij -wej, c̄k̄z-tWvev, n̄ Ges mvḡy` i ḡta`B m̄xgve× | mvḡy`K grm̄ w̄k̄vi ew̄Yw̄R`K w̄f̄w̄E tZ Ges Af`šl̄i`-` Rjvkq n̄Z t̄Kej ḡv̄ t`kR Pw̄n`v c̄j̄t̄Yi Rb` grm̄ w̄k̄vi Kiv nq | grm̄ aiv, grm̄ Pvl Kiv, grm̄ msiḡY, grm̄ evRvi RvZKiY BZ`w̄ Kvh̄K grm̄ w̄k̄i ej v nq | BDtiṽci tek w̄k̄Qy` k grm̄ w̄k̄t̄i h̄\_ó Db̄z | BDtiṽc ḡv̄t̄ t̄ki DĒi-cw̄ḡg DcKt̄j Aew`Z grm̄ t̄ḡt̄w̄ Ab`Zg weL`vZ grm̄ t̄ḡt̄ | ḡw̄ AvUj w̄w̄UK ḡv̄m̄v̄M̄t̄i DĒi-ce`w̄ t̄K Aew`Z | ḡw̄ wēt̄k̄j w̄Zxq ep̄Eg grm̄ t̄ḡt̄ | c̄l̄Z eQi GB grm̄ t̄ḡt̄ n̄Z 96.19 t̄ḡw̄K Ub grm̄ aiv nq |

**4.10.2 : BDtiṽci Ab`Zg grm̄ t̄ḡt̄ : W̄m̄e`isK |**

**W̄m̄e`isK** : BDtiṽci cw̄ḡg DcKt̄j i GB grm̄ t̄ḡt̄w̄ ēt̄Ūt̄bi c̄te, t̄Wbgv̄t̄K̄P cw̄ḡt̄g, t̄b`vij`v̄t̄Ui DĒi Ges bil t̄qi` w̄ḡY-cw̄ḡt̄g DĒi m̄v̄M̄t̄i Aew`Z | ḡw̄ c̄w̄\_exi mēḡr Ges c̄m̄× grm̄ PviY t̄ḡt̄ | Gi AvqZb 300 eM̄w̄Kt̄j w̄ḡŪv̄t̄i i AwaK | c̄w̄bi M̄f̄xi Zv 22 n̄Z 27 w̄ḡŪv̄i | GB grm̄ t̄ḡt̄ n̄Z t̄n̄is, KW, m̄vgb n̄v`K, ḡv̄Kv̄t̄j RvZxq grm̄ aiv nq |

**4.5.3 : BDtiṽci grm̄ w̄k̄t̄i Db̄z t`kmḡr**

**K) iḡ tdWti kb**

mvḡy`K grm̄ Avni t̄Y i w̄k̄qv c̄w̄\_extZ w̄Zxq`v̄b AwaKvi K̄t̄i | ḡt`k̄w̄ c̄k̄v̄šl̄ ḡv̄m̄v̄t̄i DcKj- n̄Z mēt̄P̄t̄q teiw grm̄ āt̄i | Af`šl̄i`-` b`-b`x t̄\_t̄Kl̄ c̄ḡy grm̄ w̄k̄vi K̄t̄i |

**L) bil t̄q**

grm̄ w̄k̄vi Ges grm̄ w̄k̄t̄i bil t̄q L̄yB Db̄z | BDtiṽci DĒi-cw̄ḡg DcKt̄j i wēw̄fb̄ēt̄ t̄ki ḡta` bil t̄qB teiw grm̄ āt̄i | t̄`k̄w̄i A\_ḡw̄ZK w̄msn̄f̄v̄M̄ ḡr̄t̄mi Dci w̄b̄f̄P̄k̄j | grm̄ w̄k̄t̄i bil t̄q wēt̄k̄l̄v̄`k`v̄b AwaKvi K̄t̄i Av̄t̄Q | ZvQvov BDtiṽci t̄Wbgv̄K, h̄ȳivR, AvBmj`v̄U c̄f̄w̄Z. t`k̄l̄ grm̄ Avni t̄Y m̄ḡ× | Gme t`k̄ Zv̄`i aZ ḡr̄t̄m̄i AwaKv̄skB h̄ȳiv̄t̄o`i dZv̄b K̄t̄i |

**mvisk**

BDþivþci tek KIU t`k grm` m`úf` mgx | BDþivþci i vnkqv Ges bil tq grm` ukfí  
h\_vµtg wZxq Ges ðv`k `vb AwKvi Kþi | BDþivþci mvgw` K grþm`i gþa` tnwis,  
KW, m`vgb, n`vWK, gv`Kvþij RvZxq grm`B çåvb | WvMm`e`isK BDþivþci Ab`Zg  
grm` PviY t`qT |

**cvþvEi gj`iqb 4.10**

**mWK DEþi i cvþk WK (v) vPy v b |**

- BDþivþci DEi-cwðg Dckþj Aew`Z grm` t`qT nþZ evml R KZ tgvUKUb grm`  
aiv nq?  
(K) 9.19 (L) 69.19  
(M) 96.19 (N) 91.19
- cu\_exi meþpr grm` t`qT WvMm`e`isK Gi AvqZb KZ?  
(K) 200 eM`K.ug. Gi teik (L) 300 eM`K.ug. Gi teik  
(M) 400 eM`K.ug. Gi teik (N) 500 eM`K.ug. Gi teik
- BDþivþci AvniYKZ.grþm`i teiki fvM tKvb t`þk idZvnb Kiv nq?  
(K) Rvcvþb (L) KvbvWvq  
(M) Aþ`þj qvq (N) hþ`i vto`

**DEi : 1 | M 2 | K 3 | N**

**msvþB cþæ**

- WvMm`e`isK vK?

**iPbvj-K cþæ**

- BDþivþci grm` m`ú` m`úþK`hv Rvþbb vj Lþ |

**cW 4.11**

**BDtivtci hvZvqvZ e'e-v**

**Dti'k**

**GB cW tkfI AvciB**

- 1 BDtivtci hvZvqvZ c\_, tj vi bvg ej tZ cvi teb,
- 1 hvZvqvZ c\_, tj vi weeiY w tZ cvi teb|

**4.11.1 : BDtivtci hvZvqvZ c\_**

BDtivtci Avakisk t'k Zvt'i A\_ %ovZK Dbwzi mvt\_ mvt\_ hvZvqvZ e'e-vtKI m'utnwi Z Kti tQ| hvZvqvZ ct\_i gta" moK c\_, tij c\_ Ges wegvbc\_ itqtQ| GK t'k nbtZ Ab" t'k wKsev AStt'k emYwR"K cY" tcl'tYi Rb" th c\_ e'euZ nq ZvtK emYwR"K c\_ etj | th vtb th aitYi emYwR" c\_ e'euZ tnuk bv tkb Zv wefwæemYwR" tK>^, kni ev ex'tii mvt\_ thwMvthvM i'qv Kti Ges cY" Pj vPtj i Øvi Dbk' Kti v'tK| BDtivtci moK ct\_ tguUihvb tij ct\_ tij, AvKvk ct\_ DtoivRvnr, tnij KPvi Ges Rj ct\_ j A-w÷gvi, Rvnr, tbSKv BZ"v Pj vPj Kti |

**4.11.2 : wefwæct\_i eYØv**

**K) moK c\_ :** BDtivtc clq mKj t'ki mvt\_ moK ct\_ mKj t'ki m'uk'itqtQ| moK c\_, tj v Avevi wZb cKvti i | h\_v- c'vb ivR c\_, kvLv ivRc\_ Ges M'g" c\_ | t'ki GK c'šl n'tZ Aci c'šl ch'šl th c\_ wMtqtQ ZvtK c'vb ivRc\_ etj | ivR ct\_i mvt\_ thme kvLv Gtm wgvj Z nq ZvtK kvLv ivRc\_ etj | M'g cvtq Pj vPtj i c\_tK M'g" c\_ etj | BDtivtci mKj t'kB me aitYi moK c\_ Rvtj i b'vq wevQ'tq itqtQ| h'v ivtR"i clq 3,53,980 wK. wv. cvKv moK c\_ AvtQ|

**L) tij c\_ :** 1825 mvtj RR"v÷tdbmb tij BwAb Ave"vtii ci t\_tK BDtivtci wefwæct'k tij c\_ Mto l'tv| eZ'v'tb BDtivtci mKj t'kB tij c\_ Pj yitqtQ| c\_w\_exi wZb wL'vZ gnv't'kxq tij c\_ BDtivtc itqtQ| G\_tjv nj- 1) U'Y mvtewi qvb tij c\_ 2) U'Y Kvw'úqvb tij c\_ Ges 3) U'Y KtKkxq tij c\_ | Gt' i gta" U'Y mvtewi qvb tij c\_ w c\_w\_exi `xN'g tij c\_ |

**M) Rj c\_ :** BDtivtci wZb w KB mgv' Øviv tei'Z | Pj vPtj i DcKj- fMpe dtj mvgv'K Rvnr Ab'kj cwi tek v'kvq BDtivtci Rj c\_ e'env'tii , i'z' tevk | BDtivtci Af'si' `w'bqe, ivBb, b'BRvi, Wb, mxv c'f'wZ. b`x\_tjv bre" | GQrov eo eo Lvj , tj vi gta" wKtqj Lvj , g'v'p÷vi Lvj l Avg÷vi Wvg Lvj D'tj l'thvM' | BDtivtci Rj ct\_ B emYwR"K m'pav metPtq tevk |

**N) ɱegvb c\_ :** cwi enb e'e'vi gta' ɱegvb c\_B me'c'ŋv `ŋZg| So, epó, Kqvkv BZ'w' t'Lv bv w'tj cwno-ceZ, eb-R'zj, b`x-bvj v, mvmi-gnvmMi Gi Dci w'tq ɱegvb PjvPj Kti | BDti'vtci c'q mKj t'tki mvt\_ ɱegvb thvMvthvMi e'e'v AvtQ| BDti'vtci ɱeL'vZ ɱegvb c\_, t'j v nj -

1. BDti'vc Ges AvndKvi ga'eZ'P'ɱegvb c\_
2. BDti'vc Ges Avt'gwi Kvi ga'eZ'P'ɱegvb c\_
3. BDti'vc, Gnkqv Ges At÷'ij qvi ga'eZ'P'ɱegvb c\_|
4. cwi'og BDti'vc ntZ i'v'kqv Ges ce'Gnkqvi ɱegvb c\_|

**mvisk**

BDti'vtci hvZvqvZ c\_ mgx| BDti'vtc ɱZbvU gnv't'kxq tij c\_ i'tqtQ G, t'j v nj U'Y' mivB'tewi qv, U'Y' Kwi'úqv Ges U'Y' Kt'Kkxqv tij c\_| U'Y' mivB'tewi qv tij c\_w ɱe't'k'i `xN'Zg tij c\_| ɱe't'k'i mKj t'tki mvt\_B BDti'vtci ɱegvb thvMvthvM AvtQ|

**cvt'V'Ěi gj'vqb 4.11**

**mivK DĚti i c'k ɱK (l) ɱP'ý w' b|**

1. `ŋZg thvMvthvM c\_w t'KvbwU?
 

(K) moK c_	(L) Rj c_
(M) tij c_	(N) ɱegvb c_
  
2. h'ŋ'iv'tR'i cvKv moK ct\_i `N'KZ ɱK.ig?
 

(K) 3,53,980	(L) 35,398
(M) 53,890	(N) 89053
  
3. t'KvbwU BDti'vtci Lvj bq?
 

(K) ɱK'taj Lvj	(L) cvbvqv Lvj
(M) g'vb'tP÷vi Lvj	(N) Avg÷vi W'ig Lvj
  
4. t'KvbwU c\_w'exi `xN'Zg tij c\_?
 

(K) U'Y' Kt'Kkxq	(L) U'Y' Kwi'úqv
(M) U'Y' At÷'ij qv	(N) U'Y' mivB'tewi qv

**DĚi : 1| N 2| K 3| L 4| N**

**iPbvj-K c'kæ**

1. BDti'vtci hvZvqvZ e'e'vi Dci ms'ŋ|B i'Pbv ij L'g|

**msw/B cæ**

1. BDtvtci tijct\_i eYv w b|

**cW 4.12**

**BDtvtci Kul.mú`**

**Dt`k`**

**GB cW tk`I Avcb**

- 1 BDtvtci cãvb cãvb Kul.R cY` ,tj vi bvg RvbTZ cvi`teb,
- 1 BDtvtci tk` Kul.AAj` ,tj vi bvg RvbTZ cvi`teb,
- 1 BDtvtci tKvb t`k ev GjvKvq tKv`bv tKv`bv Kul.R cY` Drcw` Z nq Zv D`j` Kitz cvi`teb,
- 1 BDtvtc gnv`tki tk` Kul.AAj` ,wj i bvg ej`TZ cvi`teb|

**4.12.2 : BDtvtci Kul.Kvh®**

Kul.mú` I Kul.AAj` , f`cKwZ. Ges Rj evqy Kvi`Y BDtvtci mKj RvqMvq Kul. Kvh®m`e bq| Zte Z`j`bvgj-Kfivte GB gnv`k Kul.t`j`T Dbz`| Mg, avb, I U, exU, he BZ`w` BDtvtci cãvb Kul.R `e`| `w`Y imkqvi BDt`ub AAj` Ges `w`Y-BDtvtci ej`Kvb Dc`vtci mgf`g I BUj`xi tcv b`xi AeemKv tk` Kul.AAj`| GB gnv`tk bvbv`iYi Lv`km` Ges A\_`Rix km` Kul.n`Z Avtm|

**4.12.2 : BDtvtci cãvb cãvb Kul.mú`**

**K) Mg :** imkqvi BDt`ub, D`i K`Kkvm Ges fj Mv AeemKv AAj` c`y M`gi Pvl nq| GQvov BDtvtci dv`Y, Rvq`bx, BZvj`x, nvt`ix, tej`w`Rqvg, tb`vij`vU I h`y`iv`R` c`y Mg Drcw` Z nq| Drcv`bKvix mKj t`kB Mg idZvb Kti| GmKj t`tki Rj evqyGes A\_`w`ZK e`e`v Mg Pvl i Rb` Dc`thw`x| Mg Drcv`tb BDtvtc gnv`k w`tk`w`Zxq|

**L) avb :** avb Drcv`tb BDtvtc mg` bq| mgM`BDtvtc 9.92 j`q` tn±i RvgtZ avb Pvl nq| w`tk`i gv` 0.86 kZisk avb BDtvtc Drcb`nq| tgvU Drcv`tbi tenki fivMB BZvj`x, t`ub I imkqvg nq| mvteK h`j`Mvkwf`qv, cZ`j`j` , M`m Ges ej`t`Mv`qv`Z avtbi Pvl nq| BZvj`x avb w`Ksev Pij idZvb`Z c`m`x|

**M) f`v :** Lv` km` w`tmte Mg Ges avtbi c`iB f`vi `vb| `w`Y BDtvtc f`v Pvl Avak mg`|BDtvtci dv`Y, isymbqv, imkqv BDt`ub, tej`w`Rqvg, BZvj`x, h`j`Mvkwf`qv

I nıfıixZ fÆv Pvl nq| fÆv Drcv`tb drY wtk! cÂg, igmbqv beg Ges imkqv`kg`vb AwKvix| Drcv`bKvix mKj t`kB fÆv idZvb Kti|

**N) ivB** : ivB gj-Z ga` cÖP`i Kul.dmj | Lv` wntmte Mgi ctiB ivBtqi`vb| ivB Mixtei Lv` ntjI Dbz t`tk ivB ciLv` wntmte aiv nq| ivB Drcv`tb tcvj`vÜ wtk! wZxq Ges Rvgföx ZZxq`tbi AwKvix| GQvov Zz®, t`úb, drY, mBfWb ivB Drcw`Z nq|

**O) tRıqvi evRiv** : tRıqvi evRiv i® tgšmgx AÂtj i gvbj i Lv` | GıU ciLv` wntmteI e`eüZ nq| BDtiıtc mıgvb` GjvKıq tRıqvi evRivi Pvl nq| GQvov evıj®, RB, Pv, tKıfKv, Kıwd BDtiıtci Aıbk t`tkB Rıtbj|

**mvisk**

mıgvMıKfıte GB gıvı`kıU Kul.KıfR Dbz| BDtiıtci cäv cäv Kul.R cY` nı`Q Mg, avb, ivB, IU, exU, he cıfıZ| Ab`vb` , iıpcY`Kul.cY` nı`Q AvOj, Kgj vtjey Avıtcj, bımcıwZ, AvLııvU, Rj cıB, Wgy ev`ıg BZ`wı | BDııb AÂj,`ıııY BDtiıtci ej Kvb Dcöıtci mgfıg I BZıj xi tcv b`xi AeewıKv G gıvı`tki tkö Kul.AÂj |

**cıfıwEi gj`ıqb 4.12**

**mıWK DEııi cıtk wK (v) ıPy`ı b|**

1. tKıvıU BDtiıtci tkö Kul.AÂj i Aıfıı bq?  
 (K) ivkqvi BDııb (L) ej Kvb Dcöıc  
 (M) BZıj xi tcv-b`xi AeewıKv (N) mıBıewı qv
2. Mg Drcv`tb BDtiıvc gıvı`k wtk! KZZg`tbi AwKvix?  
 (K) cıg (L) wZxq  
 (M) ZZxq (N) PZZ®
3. mgMöBDtiıtci tıvU KZ j ıı tııı RıgıZ avb Pvl nq?  
 (K) 9.92 (L) 99.2  
 (M) 992 (N) .992
4. fÆv Drcv`tb wtk! drY KZZg`vb AwKvi Kti?  
 (K) PZZ® (L) cÂg  
 (M) mıBg (N) beg
5. tKıvıU i® tgšmgx AÂtj i Lv` wntmte e`eüZ nq?  
 (K) ivB (L) Mg  
 (M) fÆv (N) tRıqvi-evRiv

**DĚi** : 1| N 2| L 3| K 4| L5| N

**msv]B cĕe**

1. BDĭi vĕci Kul. `è' mgr. K K?

**iPbvj-K cĕe**

1. BDĭi vĕci Kul. m'úĭ` i weei Y w`b/



ci mɔúʔ`i Dci wɔfʔ Kʔi BDʔivʔc AʔbK wí Mʔo DʔVʔQ| Miyʔfoɔ, iKi Ges  
nɔm-gjwM BDʔivʔci cǎɔɔb ci mɔúʔ` | tWbgvK, wɛʔUb Ges tɔ`vij`vʔŪ ci mɔúʔ`i  
Dci wɔfʔ Kʔi `y Lɔgvi Mʔo DʔVʔQ| BDʔivʔci ej Mv nwi Y Dʔj LʔhɔM` eb` cǎYx|

**ciVvEi gj`vqb 4.13**

**mWk DEti i cik Wk (v) wPy w b |**

1. tgl cij tb i vnkqv wtk; KZZg `vb AwKvi Kti?  
(K) clg (L) wZxq  
(M) ZZxq (N) PZz<sup>o</sup>
2. `y Drcv`b, gysm Drcv`b I fvi entbi Rb` tKivW cij b Kiv nq?  
(K) tgl (L) iKi  
(M) Mew` ci (N) nwm-gjwM
3. Bmj vg AayM Z Gj vKvq tKv`bv ci` cWZcij b Kiv nq bv?  
(K) DU (L) tgl  
(M) `y (N) iKi

**DEi : 1 | L 2 | M 3 | N**

**mswB cke**

1. BDti v`ci Mpcwv Z ci m`u` mgr Wk Wk?

**iPbvj-K cke**

1. BDti v`ci cWx m`u` m`u`K`Pbv vj Lly|

**cW 4.14**

**BDtiṽci ewYR" : Avg`wb-idZwb**

**Dt'ik"**

**GB cW tkłI Avciḅ**

- 1 BDtiṽci ewYtR"i weeiY w`tZ cviṽeb,
- 1 BDtiṽci eo eo t`k wK wK `e" Avg`wḅ Kti Zv Dtjł KiṽZ cviṽeb,
- 1 BDtiṽci eo eo t`k wK wK `e" idZwḅ Kti Zv RivṽZ cviṽeb,
- 1 BDtiṽci Avg`wḅ I idZwḅ KvṽR th me e`i I kni e`eüZ nq Zvṽ`i bvg Dtjł KiṽZ cviṽeb|

**4.14.1 : BDtiṽci ewYR"**

cY" μq-μeq Ges Gi AvblywzK Kvhewj tK ewYR" etj | eüKvj ce®t`tKB BDtiṽcxqiv ewYR" mgx Rvz wntmte cwi wPZ | 1498 mtj BDtiṽcxq bwieK fvt`v-`v-Mvgv ewYtR"i Dt'ik`B BDtiṽc t`tK Rj c`fvi Zxq Dcgnv`tk Avtm | Gi ci t`tK AvRI BDtiṽci mt`\_ Gmkqvi t`k,tjvi ewYR" Ae`mZ itqtQ | ZvQvov AvndKv, Avtgwi Kv I Aṽ`ij qvi t`kmgṽni mt`\_I BDtiṽci AṽK t`tki ewYwR`K mṽúK® itqtQ | BDtiṽci newfbæ t`k wki RivZ `e`w, wkt'i Kuvvguj, JIa, Kul.RcY", grm", LubR mṽú` idZwḅ Kti | Aciw`tK Avg`wḅ Kti wkt'i Kuvvguj, Pv, ZivgK, Kwd, cvU, Zṽv, ivevi, gvsm, BZ`w |

**4.14.2 : BDtiṽci KwZcq Dbz t`tki Avg`wb idZwb ewYR"**

DËi-cwōg BDtiṽci Dbz t`k,tjv ntjv hṽivR", dvY, tej wRqvg, tb`vij`vÜ Rvgfbx Ges mḅtWb | ce®BDtiṽcxq Dbz t`k,tjvi gṽa" itqtQ iwkvq I iḷ tdWtiktbi KwZcq t`k | ga" I `wY BDtiṽci Dbz t`k,tjv ntjv- igwḅqv, Aw`ḅv, BZvjx, t`úb, Mm, ejṽMmiv I Zṽ` | Gme t`k B AvšRwZK Ges Avšgnv`kxq ewYR" t`tI LḅB Dbz |

**hṽivR"**

hṽivR"i Dtjł thvM" e`i,tjv nj - jÜb, wj fvicj, WwÜ, MmṽMv, g`vbṽPóvi, tkwdi, wṽ-j | Gme e`i w`tqB hṽivR" Pv, ZivgK, Kwd, ivevi, gvsm, Pvgov, ckg, `yRvZ `e", Mg, Zṽv, cvU cfwZ. Avg`wḅ Kti | Aciw`tK KvMR, Kwlg tikg, imvqvḅK `e", e`; AvmveecĪ, hšcmZ, Kj Kâv, tgvUiMmo, Kqv, B`úvZ wḅgZ `e`w, wMvṽiU BZ`w idZwḅ Kti |

**dvY**

c`vii m Ges gvfmB dxtYi c`avb kni I e`i | Gme e`i w`tq dxY tgvUi Mvno,  
RvnrR vbgPY mvgM0, vPvb, KvMR BZ`w` idZvnb Kti | vkt`i KvDvgvj cvU, Mg,  
Pvgov I tZj exR Avg`vnb Kti |

**Rvgf0x**

eb, evbm, tKij b I nvgem`cFvZ. Rvgf0xi c`m x kni I e`i | vkt`i RvZ `e`v,`  
Jla I RvnrR vbgPY I A`; vPvKrmvi mvgM0 idZvnb Kti | Avg`vnb `e`v`i gfa`  
itqtQ-vkt`i KvDvgvj, Pv, Kvcd, cvU, vPvb, tKvKv I ivevi |

**mBRvij`vU**

tRtbfv I RvL mBRvij`vU c`avb e`i | m`q `e`yZK hšc`vZ, Nno, KvMR,  
idZvnb Kti | Lvbr mvgM0, Mg I Pv-Kvcd Avg`vnb Kti |

**nj`vU**

Avg`vnb I iUvWvg nj`vU c`avb e`i | tij I RvnrR vbgPY mvgM0 idZvnb Kti |  
tj šn I B`uvZRvZ `e`v` Avg`vnb Kti |

**BZvj x**

tivg, tfvbm, tRtbrqv, tbcj m&l tclvY BZvj xi c`avb c`avb e`i | Kvcd, tKvKv, Pv,  
vPvb, Mg, ckg, cvU Gme e`i w`tq Avg`vnb Kiv nq | Btj KUlBK mvgM0, KvD vbgZ  
`e`v, RvnrR vbgPY I vPvKrmvi mvgM0 Gme e`i w`tqB idZvnb Kiv nq |

**tcvj`vU**

WvbvRM tcvj`vU tk0 e`i | Kqv, vPvb, Kv0gU, Kv, KvMR, RvnrR vbgPY mvgM0  
I `e`AvbK hšc`vZ idZvnb Kti | Mg, vkt`i KvDvgvj, cvU, Pv, Kvcd, tKvKv, ivevi  
I `Zvi tcvlvK Avg`vnb Kti |

**t`ub**

gvw`^, vRel`ei, evm`fj vbv t`v`bi c`avb kni I e`i | idZvnb Kti vkt`i RvZ `e`v,`  
Av`y I Rj cvB | Avg`vnb Kti vPvb, Zžv, cvU, Pv, Kvcd, tKvKv, Mg, Pvgov BZ`w` |

**ily tdWv`ikb**

gt`v, tj vj bM0W, KvKz cFvZ. ily dWv`ik`bi c`avb kni I e`i | Gme e`i w`tq  
Kqv, tj šnmn vevfbaLvbr `e`v, `e`AvbK hšc`vZ, Btj KUlBK mvgM0, A`m`j I  
fvix vkt`i hšc`vZ idZvnb Kti | Avg`vnb Kti Mg, cvU, Pv, Pvgov, vPvb, Kvcd,  
vkt`i KvDvgvj BZ`w` |

Dctiv<sup>3</sup> t`k, t`jv Qvovl itqtQ BDtvc gvnt`ki Zž`i ivRavbx Av`viv I B`vfy  
e`i | Av`v`v ivRavbx I c`avb e`i vftqbv, mBtWv`bi ivRavbx ÷ Ktnvg M`UbevM0  
e`i | Gme t`ki idZvnbRvZ `e`v` is, Jla, KvMR, `e`AvbK I Wv<sup>3</sup>vix hšc`vZ |  
Gt`k, t`jv Pv, Kvcd, tKvKv, cvU, `Zvi tcvlvK I vkt`i KvDvgvj Avg`vnb Kti |

**mvisk**

BDtivtci AnaKisk t`k eukij ce@t\_#KB emYtR" mgx wQj | BDtivtci AtbK  
t`kB ukíRvZ `è"v", LubR `è"v" I fviX ukíi hšcwZ idZvb Kti | BDtivtci  
AnaKisk t`kB ukíi Kivgij, Lv"-mvgMô BZ"v" Avg`vb Kti |

**cvtVĚi gj`vqb 4.14**

**mVK DĚti i ctk wK (l) wPý w`b |**

1. KZ mtj fvt`v-v-Mvgv emYtR"i Dfík" mgý<sup>a</sup> ct\_ BDtivc t\_#K fviZix  
Dcgnvt`tk Avtmb |

(K) 1498 (L) 1598

(M) 1698 (N) 1798

2. tKvbw DĚi-cwōg BDtivtci t`k bq?

(K) dvY (L) ZĚ<sup>®</sup>

(M) hŷivR" (N) tb`vij`vŪ

3. tKvbw hŷivR"i emYtR"K e`i bq?

(K) WwŪ (L) tkwdi

(M) tFibm (N) wj fvi cŷ

4. BDtivtci tKvb t`k Nwo`Zwi I idZvb#Z DfjL#hvM" `vb AnaKvi Kti AvtQ?

(K) nj`vŪ (L) tci j`Ū

(M) Mm (N) mŷRvij`vŪ

**DĚi : 1 | K 2 | L 3 | M 4 | L**

**mswŷB cĚe**

1. BDtivtci Avg`vb idZvb cY", t j v wK wK?

**iPbuj-K cĚe**

1. BDtivtci Avg`vb-idZvb emYtR"i weeiY w`b |



	<i>j vUwFqv</i>	37	57
	<i>ij _gmbqv</i>	37	
M)	<i>mgfug AÂj</i>		
	<i>tb`vi j`vU</i>	152	451
	<i>tej uRqv</i>	9	323
	<i>j y gevM®</i>	4	154
	<i>dvY</i>	566	112
	<i>tWbgvK®</i>	51	119
	<i>Rvgfbx</i>	778	218
	<i>tcvj`vU</i>	383	123
N)	<i>ce®AÂj</i>	1386	60
	<i>ivkqv (BD†ivcix Ask)</i>	103	50
	<i>evB†j vi vnkqv</i>	522	86
	<i>BD†µb</i>	44	129
	<i>tgj WwFqv</i>		
O)	<i>U†Y K†Kvkqv AÂj</i>		
	<i>RuR®v</i>	55	79
	<i>Av†gfbqv</i>	34	114
	<i>AvRvi evBRvb</i>	71	82
P)	<i>ga`I`u†Y AÂj</i>		
	<i>†PK</i>	103	121
	<i>†`u†vK</i>	53	124
	<i>i gmbqv</i>	228	96
	<i>nv†½ix</i>	103	111
	<i>Av÷ qv</i>	76	91
	<i>mBRvi j`vU</i>	68	165
	<i>cZ†vj</i>	99	107
	<i>BZvj x</i>	0.58	5
	<i>f`vUK`vb</i>	0.00648	.0036
	<i>mvb†gwi †bv</i>	0.2	323
	<i>†`u†vmbqv</i>	20	99
	<i>†µv†qvkqv</i>	48	85
	<i>emibqv nviR†WwFbv</i>	44	64
	<i>mve®v</i>	45	58
	<i>tgum†Wmbqv</i>	9	27

Avj tēwbqv	33	114
ejtMwi qv	90	81
Mām	20	15
Zž® (BDtīvcīq Ask)	18	77
gvēv	3	949

mvi Yx 4.2 nřZ t`Lv hvq BDtīvtc i vnkqvq meřPtq tenk tj vK evm Kti | i vnkqvi tj vK msL`v 1,386 j ¶¶ | Gi ctiB dñŸi `vb | dñŸi tj vKmsL`v 566 j ¶¶ | Zte RbmsL`vi NbřZji w`K t`řK f`vUK`vřbi `vb cŰg, AvBmj`vŰ I gvēvi `vb wŰZxq | f`vUK`vřb cŰZ eMŰKtj vqUvři 3,600 Ges AvBmj`vŰ I gvēvq cŰZ eMŰKtj vqUvři 949 Rb tj vK evm Kti |

**mvi sk**

1992 mřtj BDtīvtci RbmsL`v wŰj 80 tKwU | BDtīvtci Avakvsk Avaevmx tkřKvq | cŰ\_exi ZZxq NbemwZcŸ® GjvKwU nj BDtīvtci DĚi I DĚi-cwŰg GjvKv | BDtīvtci i vnkqvq tj vKmsL`v meřPtq tenk | f`vUK`vřb meřPtq Kg | GB msL`v h\_vřtř 1386 j ¶¶ I .00648 j ¶¶ | BDtīvc gñřřk i vnkqvi ctiB RbmsL`v w`K t`řK Rvřřb, dñŸ, hřivR` Ges BDtīvtci `vb | GB t`k\_vřtř vi RbmsL`v h\_vřtř 778, 566, 564 Ges 522 j ¶¶ |

**cřVĚi gj`vqb 4.15**

**mŰK DĚi i cřk ŰK (ř) wřŸ w`b |**

- BDtīvtci Avakvsk Avaevmx tKvb tkŸřřř?  
 (K) cřZ (L) tkřKvq KřKkřq  
 (M) Rvřřb (N) gřřřřřřř
- BDtīvtci tKvb t`řk meřPtq tenk tj vK evm Kti?  
 (K) dñŸ (L) gvēv  
 (M) Rvřřb (N) i vnkqv
- hřivR` cŰZ eMŰKtj vqUvři KZ tj vK evm Kti?  
 (K) 231 (L) 312  
 (M) 123 (N) 213
- f`vUK`vřb cŰZ eMŰKtj vqUvři RbmsL`vi Nbřj KZ?  
 (K) 36000 (L) .0036  
 (M) 360 (N) 36
- i vnkqvq tj vKmsL`v KZ j ¶¶?  
 (K) 138 (L) 386  
 (M) 105 (N) 103

**DĚi : 1 | L 2 | N 3 | K 4 | L 5 | N**

**msw]]B cġæ**

1. *BDġivġci Avv`evmġ`i weeiY w`b|*

**iPbvgj-K cġæ**

1. *BDġivġci RbmsL`vi msw]]B weeiY w`b|*