ꯑꯦꯗꯤꯇꯣꯔꯤꯌꯦꯜ IMPHAL, WEDNESDAY, ꯑꯎꯘꯎꯈꯠ 24, 2022 ꯌꯨꯝꯁꯀꯩꯁ, ꯊꯋꯥꯟꯒꯤ 27ꯅꯤ ꯄꯥꯟꯕ, ꯃꯥꯂꯤꯌꯥ ꯀꯨꯝꯁꯤꯡ 3419 obT\ꯂꯩ ꯃꯀꯩꯋ꯭ꯀ 2 HUEIYEN LANPAO

ꯄꯥꯎꯆꯦ ꯑꯁꯤꯗ ꯐꯣꯡꯖꯔꯤꯕ ꯋꯥꯔꯦꯡꯁꯤꯡ ꯑꯁꯤꯒꯤ ꯋꯥꯈꯜ, ꯃꯤꯠꯌꯦꯡ ꯑꯏꯕ ꯃꯁꯥ ꯃꯁꯥꯒꯤꯅꯤ꯫ ꯄꯥꯎꯆꯦ ꯑꯁꯤꯒ ꯄꯥꯎꯆꯦ ꯑꯁꯤꯒꯤ ꯋꯥꯈꯜꯂꯣꯟ ꯑꯃꯁꯨꯡ ꯃꯤꯠꯌꯦꯡꯒ ꯊꯣꯏꯗꯣꯛꯅ ꯃꯔꯤ ꯂꯩꯅꯗꯦ꯫

ꯍꯨꯏꯌꯦꯟ ꯂꯥꯟꯄꯥꯎ
ꯌꯨꯝꯁꯀꯩꯁ, ꯑꯣꯒꯁꯠ 24, 2022, ꯏꯝꯐꯥꯜ
14 ꯁꯨꯕ ꯆꯍꯤ, 128 ꯁꯨꯕ ꯃꯁꯤꯡ
ꯍꯨꯏꯌꯦꯟ ꯂꯥꯟꯄꯥꯎ ꯂꯤꯇꯔꯦꯔꯤ ꯀ꯭ꯋꯤꯖ - 48
1) "ꯈꯥꯅꯤꯡꯄ ꯍꯣꯡꯅꯇꯦ ꯃꯤꯀꯣꯟꯄ ꯍꯣꯡꯅꯇꯦ꯫ ꯈꯥꯅꯤꯡ ꯃꯤꯀꯣꯜ ꯑꯥꯃ
ꯇꯩꯄꯇꯤ ꯌꯤꯌꯨꯕ ꯆꯤꯡꯈꯣꯡ ꯄꯣꯏꯔꯩꯇꯣꯟ ꯃꯈꯨꯔꯣꯟꯄꯨ ꯀꯣꯅꯄꯅꯦ꯫" ꯋꯥꯍꯩ
ꯄꯔꯦꯡ ꯑꯅꯤꯁꯤ ꯀꯔꯝꯕ ꯑꯔꯤꯕ ꯂꯥꯏꯔꯤꯛꯇꯒꯤ ꯂꯧꯊꯣꯔꯛꯄꯅꯣ?
2) "ꯃꯅꯤꯄꯨꯔꯤ ꯔꯥꯁ" ꯍꯥꯏꯕ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤꯒꯤ ꯑꯏꯕ ꯀꯅꯥꯅꯣ?
3) ꯃꯅꯤꯄꯨꯔ ꯃꯄꯥꯟꯒꯤ ꯑꯏꯕꯤ ꯑꯃꯒꯤ ꯂꯥꯏꯔꯤꯛꯅꯤ "ꯄ꯭ꯔꯂꯣꯏꯒꯤ
ꯈꯨꯠꯁꯣꯛꯇ" ꯍꯥꯏꯕ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤ꯫ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤꯒꯤ ꯑꯏꯕꯤꯁꯤ
ꯀꯅꯥꯅꯣ ꯑꯃꯁꯨꯡ ꯀꯔꯝꯕ ꯃꯈꯜꯒꯤ ꯂꯥꯏꯔꯤꯛꯅꯣ?
4) "ꯅꯤꯡꯁꯤꯡꯕꯒꯤ ꯃꯤꯍꯨꯠꯊꯣꯡꯗ" ꯍꯥꯏꯕ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤꯒꯤ ꯑꯏꯕ
ꯀꯅꯥꯅꯣ ꯑꯃꯗꯤ ꯀꯔꯝꯕ ꯃꯈꯜꯒꯤ ꯂꯥꯏꯔꯤꯛꯅꯣ?
5) "... ꯃꯇꯝ ꯑꯁꯤꯗ ꯒꯝꯚꯤꯔ ꯁꯤꯡꯍ ꯑꯃꯁꯨꯡ ꯅꯔꯁꯤꯡꯍ ꯑꯅꯤꯃꯛ
ꯀꯥꯁꯥꯔꯗ ꯂꯩꯔꯤ꯫ ꯏꯪꯔꯦꯖꯤꯒꯤ ꯃꯥꯏꯀꯩꯗꯒꯤ ꯀꯦꯞꯇꯦꯟ ꯒ꯭ꯔꯥꯟꯠꯅ
ꯑꯧꯋꯥꯁꯤꯡꯕꯨ ꯇꯥꯟꯊꯣꯛꯅꯕ ꯃꯆꯤꯟ ꯃꯅꯥꯎ ꯑꯅꯤꯒꯤ ꯃꯇꯦꯡ ꯅꯤꯔꯕꯗ
ꯅꯔꯁꯤꯡꯍꯅ ꯃꯌꯥꯝꯕꯨꯡ ꯒꯝꯚꯤꯔ ꯁꯤꯡꯍꯒ ꯇꯥꯟꯅꯔꯒ ꯑꯧꯋꯥꯁꯤꯡꯒꯤ
ꯃꯊꯛꯇ ꯂꯥꯟꯗꯥꯗꯨꯅ ꯑꯧꯋꯥꯁꯤꯡꯕꯨ ꯃꯥꯏꯊꯤꯕ ꯄꯤꯈꯤꯕꯒꯤ ꯃꯇꯥꯡ ꯑꯁꯤꯗꯒꯤ
ꯍꯧꯔꯗꯨꯅ ꯒꯝꯚꯤꯔ ꯁꯤꯡꯍ ꯑꯃꯁꯨꯡ ꯅꯔꯁꯤꯡ ꯑꯅꯤꯅ ꯃꯅꯤꯄꯨꯔꯗꯒꯤ
ꯑꯧꯋꯥꯁꯤꯡ ꯇꯥꯟꯊꯣꯛꯈꯤ꯫" ꯏꯇꯤꯍꯥꯁꯀꯤ ꯃꯇꯥꯡ ꯑꯁꯤ ꯌꯥꯎꯔꯤꯕ ꯂꯥꯏꯔꯤꯛ ꯃꯆꯥ ꯑꯗꯨ
ꯀꯔꯤ ꯂꯥꯏꯔꯤꯛꯅꯣ ꯑꯃꯗꯤ ꯀꯅꯥꯅ ꯁꯝꯄꯥꯗꯟ ꯇꯧꯕꯅꯣ?

ꯃꯊꯛꯇ ꯄꯤꯔꯤꯕ ꯋꯥꯍꯪꯁꯤꯡ ꯑꯁꯤꯒꯤ ꯄꯥꯎꯈꯨꯝ ꯑꯣꯒꯁꯠ 30,
ꯂꯩꯕꯥꯛꯄꯣꯛꯄ ꯅꯨꯃꯤꯠꯀꯤ ꯑꯌꯨꯛ ꯄꯨꯡ 11 ꯐꯥꯎꯕꯒꯤ ꯃꯅꯨꯡꯗ ꯄꯥꯎꯆꯦ ꯑꯁꯤꯒꯤ
[OWgKf eGfDjx T-alM hueiyenliteraryquiz@
gmail.ꯖꯍꯂ ꯁꯤꯗ ꯃꯦꯜ ꯑꯣꯏꯅ ꯊꯥꯕꯤꯔꯛꯄ ꯌꯥꯒꯅꯤ꯫ ꯄꯥꯎꯈꯨꯝ ꯄꯤꯕ-
gjdw/ꯊꯥꯕꯤꯔꯛꯄ ꯃꯇꯝꯗ ꯃꯤꯡ, ꯂꯩꯐꯝ, ꯃꯍꯩꯒꯤ ꯊꯥꯛ ꯑꯃꯁꯨꯡ ꯀꯟꯇꯦꯛꯠ
ꯅꯝꯕꯔ ꯃꯌꯦꯛ ꯁꯦꯡꯅ ꯏꯕꯤꯔꯛꯎ꯫ ꯋꯥꯍꯪ ꯈꯨꯗꯤꯡꯃꯛꯀꯤ ꯄꯥꯎꯈꯨꯝ ꯆꯨꯝꯅ
ꯅꯠꯇ꯭ꯔꯒ ꯃꯁꯤꯡ ꯌꯥꯝꯅ ꯆꯨꯝꯅ ꯄꯤꯕꯤꯔꯛꯄ ꯃꯤꯑꯣꯏꯁꯤꯡ ꯑꯗꯨꯗꯒꯤ ꯗ꯭ꯔꯣ
ꯑꯣꯠꯆꯔꯒ ꯂꯥꯏꯕꯛ ꯐꯕ ꯃꯤꯁꯛ ꯑꯃ ꯈꯟꯖꯒꯅꯤ꯫ ꯂꯣꯏꯅꯅ ꯈꯜꯂꯕ ꯃꯤꯁꯛ
ꯑꯗꯨꯗ ꯃꯅꯥ ꯄꯤꯖꯒꯅꯤ꯫

ꯑꯦ ꯑꯥꯏꯒꯤ ꯑꯦꯅꯔꯖꯤ ꯏꯆꯪ ꯆꯪꯗꯕ ꯑꯅꯧꯕ ꯅ꯭ꯌꯨꯔꯣꯃꯣꯔꯐꯤꯛ ꯆꯤꯞ
ꯁꯥꯏꯟꯁꯀꯤ ꯈꯣꯡꯆꯠ
ꯃꯅꯤꯄꯨꯔꯤ ꯂꯣꯜ ꯀꯨꯟꯖꯣ ꯅꯥꯎꯔꯦꯝ
ꯍꯥꯏꯔꯒꯇ ꯇꯥꯕ, ꯅꯤꯔꯒꯇ ꯄꯤꯕ
ꯃꯅꯤꯄꯨꯔꯤ ꯂꯣꯜꯅ ꯂꯩꯕꯥꯛꯁꯤꯒꯤ 8ꯁꯨꯕ ꯁꯦꯗ꯭ꯌꯨꯜꯗ ꯆꯟꯈꯤꯕꯒꯤ ꯆꯍꯤ 31
ꯔꯛ ꯁꯨꯔꯛꯄꯒꯤ ꯅꯤꯡꯁꯤꯡ ꯊꯣꯔꯝ ꯑꯣꯒꯁꯠ 20, 2022 ꯗ ꯄꯥꯡꯊꯣꯛꯈ꯭ꯔꯦ꯫
ꯊꯧꯔꯝꯁꯤ ꯁ꯭ꯇꯦꯠ ꯂꯩꯉꯥꯛꯅꯁꯨ ꯁꯤꯟꯗꯨꯅ ꯆꯤꯐ ꯃꯤꯅꯤꯁꯇꯔꯅ ꯁꯔꯨꯛ ꯌꯥꯗꯨꯅ
ꯄꯥꯡꯊꯣꯛꯈꯤ꯫ ꯂꯟꯅꯥꯏ ꯂꯨꯞ ꯀꯌꯥꯅꯁꯨ ꯄꯥꯛꯇꯛꯅꯅ ꯄꯥꯡꯊꯣꯛꯅꯈꯤ ꯍꯥꯏꯕ
ꯐꯥꯎꯕ ꯌꯥꯏ꯫ ꯃꯌꯥꯝꯁꯤꯗꯒꯤ ꯍꯦꯟꯗꯣꯔꯛꯇꯨꯅ ꯃꯤꯇꯩꯁꯤꯡꯅ ꯈꯨꯟꯗꯥꯔꯤꯕ
ꯑꯁꯥꯝ, ꯇ꯭ꯔꯤꯄꯨꯔꯥ ꯑꯃꯁꯨꯡ ꯕꯥꯡꯂꯥꯗꯦꯁꯇ ꯐꯥꯎꯕ ꯄꯥꯡꯊꯣꯛꯈꯤ꯫ ꯂꯣꯜ ꯑꯁꯤꯅ
ꯂꯩꯕꯥꯛꯁꯤꯒꯤ ꯁꯦꯗ꯭ꯌꯨꯜ ꯂꯦꯡꯒ꯭ꯋꯦꯖ ꯑꯃ ꯑꯣꯏꯔꯛꯅꯕ ꯍꯣꯠꯅꯕꯒꯤ ꯈꯣꯡꯖꯪꯗ
ꯁꯔꯨꯛ ꯌꯥꯈꯤꯕ, ꯄꯨꯂꯤꯁꯇꯀꯤ ꯃꯤꯐꯨ-ꯆꯩꯐꯨ ꯃꯥꯌꯣꯛꯅꯈꯤꯕ ꯄꯨꯝꯅꯃꯛꯀꯤ
ꯍꯣꯠꯅꯖꯃꯟ ꯅꯤꯡꯁꯤꯡꯗꯨꯅ ꯁꯩꯊꯥꯈꯤ꯫ ꯃꯈꯣꯏꯒꯤ ꯊꯧꯅꯥ ꯂꯤꯡꯖꯦꯜꯕꯨ
ꯊꯥꯒꯠꯇꯨꯅ ꯃꯈꯣꯏꯗ ꯏꯀꯥꯏꯈꯨꯝꯅꯕ ꯎꯠꯈꯤ꯫ ꯑꯗꯨꯒ ꯃꯤꯇꯩꯂꯣꯜꯕꯨ ꯃꯈꯥ ꯇꯥꯅ
ꯆꯥꯎꯈꯠꯍꯟꯅꯕ, ꯂꯣꯜꯁꯤꯒꯤꯗꯃꯛꯇꯗ ꯂꯩꯐꯝ ꯊꯣꯛꯄꯁꯤꯡ ꯂꯩꯔꯤꯛ-ꯂꯩꯔꯥꯛ
ꯊꯟꯅ ꯂꯩꯅꯅꯕ ꯀꯔꯤ-ꯀꯔꯝꯕ ꯊꯕꯛꯁꯤꯡ ꯇꯧꯒꯗꯒꯦ/ꯄꯥꯏꯈꯠꯀꯗꯒꯦ
ꯍꯥꯏꯕꯒꯤ ꯃꯇꯥꯡꯗ ꯈꯟꯅ-ꯅꯩꯅꯈꯤ꯫ ꯃꯅꯤꯄꯨꯔꯤ ꯂꯣꯜꯒꯤ ꯅꯤꯡꯁꯤꯡ ꯊꯧꯔꯝ
ꯄꯥꯡꯊꯣꯛꯈ꯭ꯔꯤꯕ, ꯂꯣꯜꯁꯤꯒꯤꯗꯃꯛꯇ ꯇꯧꯐꯝ ꯊꯣꯛꯄ ꯊꯕꯛꯁꯤꯡꯒꯤꯗꯃꯛ
ꯍꯣꯠꯅꯈ꯭ꯔꯤꯕ ꯄꯨꯝꯅꯃꯛ ꯑꯐꯕ ꯊꯕꯛ ꯉꯥꯛꯇꯅꯤ, ꯇꯧꯐꯝꯁꯨ ꯊꯣꯛꯏ꯫ ꯁꯦꯗ꯭ꯌ uL
ꯂꯦꯡꯒ꯭ꯋꯦꯖ ꯑꯣꯏꯔꯛꯄꯒꯤꯁꯨ ꯄꯥꯡꯊꯣꯛꯇꯨꯅ ꯂꯥꯛꯏ꯫ ꯃꯇꯨꯡꯗꯁꯨ ꯃꯈꯥ ꯇꯥꯅ
ꯄꯥꯡꯊꯣꯛꯐꯝ ꯊꯣꯛꯏ꯫ ꯏꯟꯁꯣꯜ ꯀꯥꯡꯗꯅ ꯂꯦꯞꯇꯅ ꯄꯥꯡꯊꯣꯛꯈꯤꯒꯗꯕꯅꯤ꯫

ꯃꯔꯝꯗꯤ ꯂꯣꯜ ꯑꯁꯤ ꯃꯅꯤꯄꯨꯔꯗ ꯂꯩꯔꯤꯕ ꯐꯨꯔꯨꯞ-ꯀꯥꯡꯂꯨꯞ ꯄꯨꯝꯅꯃꯛꯀꯤ
ꯃꯃꯥꯂꯣꯜ ꯑꯣꯏꯗ꯭ꯔꯕꯁꯨ ꯂꯩꯃꯤꯟꯅꯔꯤꯕ ꯄꯨꯝꯅꯃꯛꯀꯤ ꯂꯣꯟꯐꯥꯎ/ꯐꯥꯎꯅꯂꯣꯜꯅꯤ꯫
ꯃꯇꯤꯛ ꯆꯥꯕ ꯃꯌꯦꯛꯁꯨ ꯂꯩꯖꯕꯒꯤ ꯃꯊꯛꯇ ꯃꯥꯂꯦꯝꯒꯤ ꯆꯥꯎꯈꯠꯂꯕ
ꯂꯣꯜꯁꯤꯡꯒ ꯁꯃꯥꯟ-ꯂꯦꯡꯃꯥꯟꯅꯔꯛꯄꯗ ꯊꯣꯏꯗꯣꯛꯅ ꯅꯣꯞꯄ ꯂꯣꯜ ꯑꯃꯁꯨ
ꯑꯣꯏꯗ꯭ꯔꯤꯕꯅꯤ꯫

ꯑꯗꯨꯕꯨ ꯈ꯭ꯋꯥꯏꯗꯒꯤ ꯅꯤꯡꯕ ꯀꯥꯏꯅꯤꯡꯉꯥꯏ ꯑꯣꯏꯔꯤꯕꯗꯤ ꯍꯧꯖꯤꯛ ꯃꯅꯤꯄꯨꯔꯤ
ꯂꯣꯜꯅ ꯂꯩꯕꯥꯛꯁꯤꯒꯤ ꯁꯦꯗ꯭ꯌꯨꯜ ꯂꯦꯡꯒ꯭ꯋꯦꯖ ꯑꯣꯏꯔꯛꯄ ꯆꯍꯤ 30 ꯃꯄꯨꯡ
ꯐꯥꯈ꯭ꯔꯕꯁꯨ ꯂꯣꯜꯁꯤꯒꯤ ꯐꯤꯚꯝꯗꯤ ꯍꯥꯏꯔꯒꯇ ꯇꯥꯕ, ꯅꯤꯔꯒꯇ ꯄꯤꯕ, ꯁꯥꯃꯨꯅ
ꯉꯥꯏꯈꯪꯔꯕ, ꯅꯤꯡꯊꯧꯅ ꯉꯥꯏ ꯊꯤꯗꯕꯒꯤ ꯐꯤꯚꯝꯗ ꯑꯗꯨꯝꯃꯛ ꯂꯩꯔꯤ꯫ ꯆꯍꯤ
ꯈꯔꯒꯤ ꯃꯃꯥꯡꯗ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯁꯛꯅꯥꯏꯔꯕ ꯑꯏꯕ ꯗꯥꯛꯇꯔ ꯂꯃꯥꯕꯝ ꯀꯃꯜꯕꯨ
ꯑꯏꯕ ꯑꯃꯅ ‘ꯀꯥꯟꯆꯤ ꯀꯣꯟꯒꯤ ꯆꯦꯛꯅꯨꯡꯁꯤ ꯀꯗꯥꯏ ꯀꯕꯤ ꯀꯃꯜꯗꯤ’ ꯍꯥꯏꯗꯨꯅ
ꯁꯩꯊꯥꯔꯛꯄꯗ ꯃꯇꯝ ꯑꯃꯒꯤ ꯅꯤꯡꯊꯧꯇꯤ ꯆꯥꯏꯊꯄꯥꯠ ꯃꯔꯤꯜ ꯑꯣꯏꯔꯝꯕ
ꯆꯟꯗ꯭ꯔꯅꯗꯤꯒꯤ ꯐꯤꯚꯝꯗꯤ ꯑꯀꯤꯕꯒꯤ ꯃꯁꯛ ꯐꯪꯂꯦ, ꯇꯣꯔꯕꯥꯟꯁꯨ ꯅꯥꯄꯤꯅ
ꯊꯟꯖꯤꯟꯈ꯭ꯔꯦ ꯍꯥꯏꯅ ꯁꯩꯊꯥꯈꯤꯕꯗꯨ ꯆꯞ ꯃꯥꯟꯅꯅ ꯂꯩꯔꯦ ꯍꯥꯏꯕꯗ ꯍꯦꯟꯖꯤꯟꯕ ꯋꯥꯍꯩ ꯑꯣꯏꯒꯗꯕ ꯃꯥꯟꯗꯦ꯫ ꯆꯨꯝꯅ ꯃꯥꯟꯗꯕꯒꯤ ꯋꯥꯐꯝ ꯅꯠꯇꯦ, ꯑꯣꯏꯔꯔꯣꯏꯗꯕꯅꯤ꯫
ꯃꯁꯤꯒꯤ ꯃꯔꯝꯁꯤ ꯀꯣꯛꯊꯣꯡ ꯑꯃ ꯂꯩ꯫ ꯑꯣꯟꯊꯣꯛꯅ ꯌꯥꯝꯈ꯭ꯔꯦ꯫ ꯑꯗꯨꯕꯨ ꯃꯔꯝ
ꯃꯌꯥꯝꯗꯨꯗꯒꯤ ꯈꯔꯗꯪ ꯂꯧꯈꯠꯂꯕꯗ ꯍꯧꯖꯤꯛ ꯃꯅꯤꯄꯨꯔꯗ ꯂꯩꯔꯤꯕ ꯃꯩꯇꯩꯂꯣꯜꯅ
ꯃꯃꯥꯂꯣꯜ ꯑꯣꯏꯖꯕ ꯃꯤꯑꯣꯏꯁꯤꯡꯗꯒꯤ ꯍꯧꯔꯒ ꯂꯣꯜ ꯑꯁꯤꯕꯨ ꯐꯥꯎꯅꯂꯣꯜ ꯑꯣꯏꯅ
ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯃꯤꯑꯣꯏꯁꯤꯡꯅ ꯇꯉꯥꯏꯐꯗꯅ ꯂꯣꯜ ꯑꯁꯤꯕꯨ ꯁꯤꯖꯤꯟꯅꯔꯕꯁꯨ
ꯃꯌꯦꯛꯇꯤ ꯍꯟꯅ ꯌꯦꯡꯗꯕꯒꯨꯝꯅ ꯇꯧꯔꯤ꯫ ꯍꯥꯏꯕꯗꯤ ꯃꯌꯦꯛꯁꯤꯕꯨ
ꯁꯤꯖꯤꯟꯅꯕꯒꯤ ꯆꯥꯡꯗꯤ ꯑꯁꯨꯛꯀꯤ ꯃꯇꯤꯛ ꯅꯤꯡꯕ ꯀꯥꯏꯅꯤꯡꯉꯥꯏ ꯑꯣꯏꯔꯤ꯫
ꯏꯁꯝ ꯁꯝꯕꯗ ꯃꯤꯄꯨꯝ ꯇꯤꯡꯅ ꯁꯤꯖꯤꯟꯅꯗ꯭ꯔꯤ ꯍꯥꯏꯕꯅꯤ꯫ ꯍꯥꯏꯔꯤꯕꯁꯤ ꯂꯣꯜ
ꯑꯃꯁꯨꯡ ꯃꯌꯦꯛꯅ ꯏꯄꯥꯅꯤ, ꯏꯄꯥꯅꯤ ꯍꯥꯏꯗꯨꯅ ꯌꯥꯝꯅ ꯂꯨꯝꯅ ꯃꯥꯡꯖꯤꯜ ꯊꯥꯗꯨꯅ
ꯀꯣꯛꯊꯕ ꯑꯃꯁꯨꯡ ꯍꯟꯕ ꯂꯩꯇꯅ ꯍꯧ-ꯍꯧ ꯆꯣꯡꯂꯛꯂꯤꯕ ꯂꯟꯅꯥꯏ ꯃꯤꯑꯣꯏ/
ꯂꯨꯞꯁꯤꯡꯅꯁꯨ ꯇꯧꯗꯦ꯫ ꯑꯗꯨꯒ ꯂꯩꯉꯥꯛꯀꯤ ꯃꯥꯏꯀꯩꯗꯒꯤꯁꯨ ꯇꯧꯗꯦ꯫ ꯂꯣꯜꯁꯤꯅ
ꯁꯦꯗ꯭ꯌꯨꯜ ꯂꯦꯡꯒ꯭ꯋꯦꯖ ꯑꯃ ꯑꯣꯏꯔꯛꯄꯒꯤꯗꯤ ꯈꯝ ꯊꯦꯡꯅ ꯍꯔꯥꯎ-ꯅꯨꯡꯉꯥꯏꯕ
ꯐꯣꯡꯗꯣꯛꯏ꯫ ꯂꯣꯜꯁꯤꯕꯨꯁꯨ ꯅꯨꯡꯁꯤ ꯍꯥꯏ꯫ ꯑꯗꯨꯒ ꯂꯣꯜꯁꯤꯒꯤ ꯃꯌꯦꯛ
ꯑꯣꯏꯔꯤꯕ ꯃꯤꯇꯩ ꯃꯌꯦꯛꯄꯨꯗꯤ ꯈꯪꯗꯕꯁꯤꯡꯅ ꯈꯪꯅꯅꯕ ꯍꯣꯠꯅꯗꯦ, ꯍꯩꯅꯅꯕ
ꯇꯝꯗꯦ ꯑꯗꯨꯅ ꯁꯤꯖꯤꯟꯅꯗꯦ꯫ ꯐꯤꯚꯝꯁꯤ ꯂꯩꯉꯥꯛꯀꯤ ꯃꯥꯏꯀꯩꯗꯁꯨ ꯆꯞ ꯃꯥꯟꯅꯩ꯫
ꯂꯣꯜ ꯑꯃꯁꯨꯡ ꯃꯌꯦꯛꯁꯤꯒꯤꯗꯃꯛ ꯂꯤꯡꯂꯤꯕ ꯂꯣꯏꯁꯪ ꯑꯁꯤꯅ ꯂꯣꯜ ꯑꯃꯁꯨꯡ
ꯇꯧꯐꯝ ꯊꯣꯛꯄ ꯊꯕꯛꯁꯤꯡ ꯃꯉꯝ ꯁꯥꯟꯅꯕ ꯇꯧꯕ/ꯇꯧꯗꯕꯗꯨꯅ ꯅꯥꯀꯜ ꯑꯃꯗ
ꯊꯝꯂꯒ ꯂꯣꯏꯁꯪ ꯑꯁꯤ ꯍꯧꯖꯤꯛ ꯃꯄꯥꯡꯒꯜ ꯇꯤꯡ-ꯇꯤꯡ ꯂꯥꯎꯅ ꯀꯜꯂꯕ, ꯃꯦꯟ
ꯄꯥꯋꯔ ꯃꯁꯤꯡ ꯁꯨꯅ ꯂꯩꯔꯕ ꯑꯃꯁꯨꯡ ꯏꯟꯐ꯭ꯔꯁ꯭ꯇ꯭ꯔꯛꯆꯔꯁꯤꯡ ꯃꯇꯤꯛ
ꯆꯥꯅ ꯂꯩꯖꯔꯕ ꯂꯣꯜꯒꯤ ꯂꯣꯏꯁꯪ ꯑꯃ ꯑꯣꯏꯔꯕ꯭ꯔꯥ ꯍꯥꯏꯕꯒꯤ ꯋꯥꯅꯤ꯫ ꯃꯔꯝꯁꯤꯡ
ꯑꯁꯤꯅ ꯂꯣꯜ/ꯃꯌꯦꯛꯀꯤꯗꯃꯛ ꯃꯥꯏꯄꯨꯅꯒꯗꯕ ꯂꯣꯏꯁꯪꯁꯤ ꯃꯇꯤꯛ ꯍꯥꯟꯅ
ꯆꯥꯍꯜꯂꯨ, ꯂꯩꯉꯥꯛ ꯑꯃꯁꯨꯡ ꯃꯤꯌꯥꯝꯅꯁꯨ ꯃꯌꯦꯛꯁꯤꯕꯨ ꯁꯤꯖꯤꯟꯅꯕꯤꯌꯨ꯫ ꯃꯁꯤꯗꯤ
ꯅꯠꯇꯅ ꯂꯣꯜꯒꯤ ꯅꯨꯃꯤꯠꯈꯛ ꯄꯥꯡꯊꯣꯛꯄꯅꯗꯤ ꯌꯥꯔꯣꯏ꯫

ꯑꯥꯔꯇꯤꯐꯤꯁꯤꯑꯦꯜ ꯏꯟꯇꯦꯂꯤꯒꯦꯟꯁ, ꯁꯝꯅ ꯑꯦ ꯑꯥꯏ
ꯍꯥꯏꯔꯒ ꯈꯪꯅꯔꯤꯕ ꯃꯤꯑꯣꯏꯕꯅ ꯄꯥꯡꯊꯣꯛꯂꯤꯕ ꯊꯕꯛ ꯑꯁꯤꯕꯨ
ꯗꯤꯖꯤꯇꯦꯜ ꯀꯝꯄ꯭ꯌꯨꯇꯔ ꯅꯠꯇ꯭ꯔꯒ ꯀꯝꯄ꯭ꯌꯨꯇꯔꯅ ꯀꯟꯇ꯭ꯔꯣꯜ
ꯇꯧꯕ ꯔꯣꯕꯣꯠ ꯑꯃꯅ ꯄꯥꯡꯊꯣꯛꯄ ꯉꯝꯍꯟꯕ ꯑꯗꯨꯕꯨ ꯈꯪꯅꯩ꯫
ꯀꯨꯝꯖꯥ 1940 ꯒꯤ ꯃꯇꯝꯗꯒꯤ ꯍꯧꯔꯒ ꯗꯤꯖꯤꯇꯦꯜ ꯀꯝꯄ꯭ꯌꯨꯇꯔꯅ
ꯆꯥꯎꯈꯠꯂꯛꯄꯗꯒꯤ ꯀꯝꯄ꯭ꯌꯨꯇꯔ ꯄ꯭ꯔꯣꯒ꯭ꯔꯥꯃꯤꯡ ꯇꯧꯔꯒ ꯊꯥꯖꯗꯕ
ꯊꯕꯛ ꯀꯌꯥ ꯄꯥꯡꯊꯣꯛꯍꯟꯕꯗ ꯁꯤꯖꯤꯟꯅꯔꯛꯂꯤ, ꯈꯨꯗꯝ ꯑꯣꯏꯅ
ꯌꯥꯝꯅ ꯆꯨꯝꯅ ꯑꯃꯁꯨꯡ ꯅꯤꯡꯊꯤꯖꯅ ꯑꯪꯀꯒꯤ ꯊꯤꯑꯣꯔꯦꯝꯁꯤꯡꯒꯤ
ꯄ꯭ꯔꯨꯐ ꯇꯧꯍꯟꯕ ꯅꯠꯇ꯭ꯔꯒ ꯁꯇ꯭ꯔꯪ (ꯆꯦꯁ) ꯁꯥꯟꯅꯍꯟꯕꯅꯆꯤꯡꯕ
ꯊꯕꯛꯁꯤꯡ ꯄꯥꯡꯊꯣꯛꯄ ꯉꯝꯂꯛꯄ ꯑꯁꯤꯅꯤ꯫ ꯃꯦꯗꯤꯀꯦꯜ
ꯗꯥꯏꯒ꯭ꯅꯣꯁꯤꯁ, ꯏꯟꯇꯔꯅꯦꯠ ꯁꯔꯆ ꯏꯟꯖꯤꯟꯁꯤꯡ ꯑꯃꯁꯨꯡ
ꯃꯤꯑꯣꯏꯕꯒꯤ ꯈꯣꯟꯖꯦꯜ ꯅꯠꯇ꯭ꯔꯒ ꯃꯤꯅ ꯏꯕ ꯈꯨꯠꯏꯁꯤꯡꯕꯨ
ꯈꯪꯕ ꯉꯝꯕ ꯑꯦ ꯑꯥꯏꯁꯤꯡꯁꯨ ꯂꯩꯔꯦ꯫ ꯑꯗꯨꯕꯨ ꯑꯥꯔꯇꯤꯐꯤꯁꯤꯑꯦꯜ
ꯏꯟꯇꯦꯂꯤꯒꯦꯟꯁꯀꯤꯗꯃꯛ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯆꯤꯞ ꯑꯃꯅ
ꯃꯜꯇꯤꯄꯜ ꯇꯥꯁꯛꯁꯤꯡꯕꯨꯗꯤ ꯄꯥꯡꯊꯣꯛꯍꯟꯕ ꯏꯉꯝ ꯉꯝꯗ꯭ꯔꯤ
ꯍꯥꯏꯕ ꯌꯥꯏ꯫
ꯃꯔꯝ ꯑꯁꯤꯅ ꯃꯥꯂꯦꯝꯒꯤ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯀꯌꯥꯅ ꯍꯤꯔꯝ ꯑꯁꯤꯗ
ꯊꯤꯖꯤꯟꯕꯒꯤ ꯊꯕꯛ ꯀꯌꯥꯃꯨꯛ ꯄꯥꯏꯈꯠꯅꯔꯛꯂꯤ꯫ ꯃꯁꯤꯒꯤ ꯃꯍꯩ
ꯑꯣꯏꯅ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯀꯥꯂꯤꯐꯣꯔꯅꯤꯌꯥ ꯁꯥꯟ ꯗꯤꯌꯥꯒꯣ (ꯌꯨ
ꯁꯤ ꯑꯦꯁ ꯗꯤ) ꯅ ꯂꯨꯆꯤꯡꯕ ꯃꯥꯂꯦꯝꯒꯤ ꯑꯣꯏꯕ ꯊꯤꯖꯤꯟꯕ ꯂꯨꯞ ꯑꯃꯅꯤ NeuRRAM ꯍꯥꯏꯅ ꯈꯪꯅꯕ, ꯑꯦꯅꯔꯖꯤꯁꯨ ꯏꯆꯥ ꯆꯥꯗꯕ ꯆꯤꯞ ꯑꯃ ꯄꯨꯊꯣꯛꯄ ꯉꯝꯂꯦ ꯍꯥꯏꯅ ‘ꯅꯦꯆꯔ (ꯑꯣꯒꯁꯠ 17, 2022) ꯗ ꯐꯣꯡꯗꯣꯔꯛꯂꯤ꯫ ꯆꯤꯞ ꯑꯁꯤ ꯑꯦ ꯑꯥꯏ ꯑꯦꯂꯤꯀꯦꯁꯟ ꯀꯌꯥꯗ ꯁꯤꯖꯤꯟꯅꯕ ꯌꯥꯕ ꯑꯍꯥꯟꯕ ꯀꯝꯄ꯭ꯌꯨꯠ-ꯏꯟ-ꯃꯦꯃꯣꯔꯤ ꯆꯤꯞꯅ ꯍꯥꯏꯔꯤ꯫ ꯆꯤꯞ ꯑꯁꯤꯅ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟꯁꯤꯡꯁꯤ ꯍꯛꯊꯦꯡꯅꯅ ꯃꯦꯃꯣꯔꯤꯗ ꯄꯥꯡꯊꯣꯛꯏ꯫

NeuRRAM ꯅ꯭ꯌꯨꯔꯣꯃꯣꯔꯄꯤꯛ ꯆꯤꯞ ꯑꯁꯤꯅ ꯀ꯭ꯂꯥꯎꯗꯀ ꯁꯝꯅꯗꯅ, ꯑꯦꯗꯖ ꯗꯤꯚꯥꯏꯁ (ꯃꯁꯤ ꯅꯦꯠꯋꯔꯛ ꯑꯅꯤꯒꯤ ꯃꯔꯛꯇ ꯗꯦꯇꯥ ꯊꯥꯗꯣꯛ-ꯊꯥꯖꯤꯟ ꯇꯧꯕꯅꯕꯨ ꯀꯟꯇ꯭ꯔꯣꯜ ꯇꯧꯔꯤꯕ ꯍꯥꯔꯗꯋ꯭ꯌꯦꯔ ꯑꯃꯅꯤ) ꯀꯌꯥ ꯑꯃꯗ ꯃꯊꯧ ꯇꯧꯍꯟꯕ ꯉꯝꯕ, ꯑꯥꯏ ꯁꯦꯝꯒꯠꯅꯕꯒꯤ ꯊꯕꯛꯇ ꯍꯦꯟꯅ ꯈꯨꯃꯥꯡ ꯆꯥꯎꯁꯤꯟꯍꯟꯕ ꯉꯝꯂꯒꯅꯤ ꯍꯥꯏꯔꯤ꯫ ꯃꯁꯤꯒꯤ ꯋꯥꯍꯟꯊꯣꯛꯇꯤ ꯁꯦꯟꯇ꯭ꯔꯦꯂꯥꯏꯖ ꯇꯧꯔꯕ ꯁꯔꯚꯔ ꯑꯃꯗ ꯅꯦꯠꯋꯔꯛ ꯀꯅꯦꯛꯁꯟ ꯇꯧꯗꯅ ꯃꯐꯝ ꯑꯃꯁꯨꯡ ꯃꯇꯝ ꯑꯃꯗ ꯍꯦꯛꯇ ꯂꯨꯔꯕ ꯀꯣꯒꯅꯤꯇꯤꯚ ꯇꯥꯁꯛꯁꯤꯡꯕꯨ ꯄꯥꯡꯊꯣꯛꯍꯟꯕ ꯉꯝꯂꯒꯅꯤ ꯍꯥꯏꯕꯅꯤ꯫ ꯑꯁꯤꯒꯨꯝꯕ ꯑꯦꯄ꯭ꯂꯤꯀꯦꯁꯟꯁꯤꯡꯒꯤ ꯃꯅꯨꯡꯗ ꯁ꯭ꯃꯥꯔꯠꯋꯥꯠꯆꯁꯤꯡꯗꯒꯤ ꯍꯧꯔꯒ ꯚꯔꯆ꯭ꯌꯨꯑꯦꯜ ꯔꯤꯑꯦꯂꯤꯇꯤ ꯍꯦꯗꯁꯦꯠꯁꯤꯡ, ꯁ꯭ꯃꯥꯔꯠ ꯏꯌꯔꯕꯗꯁꯤꯡ, ꯐꯦꯛꯇꯔꯤꯁꯤꯡꯗ ꯁ꯭ꯃꯥꯔꯠ ꯁꯟꯁꯔꯁꯤꯡ ꯑꯃꯁꯨꯡ ꯁ꯭ꯄꯦꯁ ꯑꯦꯛꯁꯄ꯭ꯂꯣꯔꯦꯁꯟꯒꯤ ꯔꯣꯚꯔꯁꯤꯡ ꯄꯟꯕ ꯌꯥꯏ꯫ NeuRRAM ꯆꯤꯞ ꯑꯁꯤ ꯏꯀꯨꯏ ꯀꯨꯏꯗ꯭ꯔꯤꯉꯩꯒꯤ ꯃꯃꯥꯡꯗ ꯄꯨꯊꯣꯛꯅꯔꯛꯈꯤꯕ ꯀꯝꯄ꯭ꯌꯨꯠ-ꯏꯟ-ꯃꯦꯃꯣꯔꯤ' ꯆꯤꯞꯁꯤꯡꯗꯒꯤ ꯁꯔꯨꯛ ꯑꯅꯤ ꯍꯟꯊꯅ ꯑꯦꯅꯔꯖꯤ ꯗꯔꯀꯥꯔ ꯑꯣꯏꯔꯕꯗ ꯅꯠꯇꯅ, ꯃꯦꯃꯣꯔꯤꯗ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟꯁꯤꯡ ꯄꯥꯡꯊꯣꯛꯄ ꯍꯥꯏꯕ꯭ꯔꯤꯗ ꯆꯤꯞꯁꯤꯡꯒꯤ ꯀꯥꯡꯂꯨꯞ ꯑꯃꯁꯨ ꯑꯣꯏ ꯑꯗꯨꯒ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯗꯤꯖꯤꯇꯦꯜ ꯆꯤꯞꯁꯤꯡꯒꯨꯝꯅ ꯑꯁꯣꯏ-ꯑꯉꯥꯝ ꯏꯌꯥꯎ ꯌꯥꯎꯗꯅ ꯃꯊꯧꯁꯨ ꯄꯥꯡꯊꯣꯛꯏ ꯍꯥꯏꯔꯤ꯫ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯗꯤꯖꯤꯇꯦꯜ ꯆꯤꯞꯁꯤꯡꯒꯨꯝꯅ ꯑꯁꯣꯏ-ꯑꯉꯥꯝ ꯏꯌꯥꯎ ꯌꯥꯎꯗꯅ ꯃꯊꯧꯁꯨ ꯄꯥꯡꯊꯣꯛꯏ ꯍꯥꯏꯔꯤ꯫ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯑꯦ ꯑꯥꯏ ꯄ꯭ꯂꯦꯠꯐꯣꯔꯝꯁꯤꯡ ꯑꯁꯤꯗꯤ ꯆꯥꯎꯏ ꯑꯃꯁꯨꯡ ꯀ꯭ꯂꯥꯎ ꯁꯤꯖꯤꯟꯅꯕ ꯑꯆꯧꯕ ꯗꯦꯇꯥ ꯁꯔꯚꯔꯁꯤꯡ ꯗꯔꯀꯥꯔ ꯑꯣꯏ꯫ ꯍꯧꯖꯤꯛꯀꯤ ꯑꯦ ꯑꯥꯏ ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡ ꯑꯁꯤꯗꯤ ꯑꯦꯅꯔꯖꯤ ꯌꯥꯝꯅ ꯆꯪꯕꯗ ꯅꯠꯇꯅ ꯁꯦꯜꯁꯨ ꯌꯥꯝꯅ ꯆꯪꯏ꯫ ꯑꯦꯗꯖ ꯗꯤꯚꯥꯏꯁꯤꯡꯗ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯑꯌꯥꯝꯕ ꯑꯦ ꯑꯥꯏ ꯑꯦꯄ꯭ꯂꯤꯀꯦꯁꯟꯁꯤꯡꯗ ꯗꯤꯚꯥꯏꯁꯤꯡꯗꯨꯗꯒꯤ ꯀ꯭ꯂꯥꯎꯗꯇ ꯗꯦꯇꯥ ꯊꯥꯈꯤꯕ ꯇꯥꯏ ꯑꯗꯨꯒ ꯀ꯭ꯂꯥꯎꯗꯇꯨꯗ ꯑꯦ ꯑꯥꯏ ꯅ ꯃꯗꯨꯕꯨ ꯄ꯭ꯔꯣꯁꯦꯁ ꯇꯧꯔꯒ ꯑꯦꯅꯥꯂꯤꯁꯤꯁ ꯇꯧꯕ ꯇꯥꯏ꯫ ꯑꯁꯨꯝꯅ ꯐꯪꯂꯛꯂꯤꯕ ꯔꯤꯖꯜꯠꯁꯤꯡꯗꯨ ꯗꯤꯚꯥꯏꯁ ꯑꯗꯨꯗ ꯑꯃꯨꯛ ꯍꯟꯅ ꯊꯥꯈꯤꯕ ꯇꯥꯏ꯫ ꯃꯁꯤꯒꯤ ꯃꯔꯝꯗꯤ ꯑꯌꯥꯝꯕ ꯑꯦꯗꯖ ꯗꯤꯚꯥꯏꯁꯤꯡꯁꯤ ꯕꯦꯠꯇꯔꯤꯅ ꯆꯂꯥꯏꯕꯅꯤ꯫ ꯑꯦ ꯑꯥꯏꯅ ꯃꯊꯧ ꯄꯥꯡꯊꯣꯛꯄꯗ ꯑꯦꯅꯔꯖꯤ ꯁꯤꯖꯤꯟꯅꯕꯒꯤ ꯆꯥꯡꯁꯤ ꯍꯟꯊꯍꯜꯂꯒ NeuRRAM ꯆꯤꯞ ꯑꯁꯤꯅ ꯍꯦꯟꯅ ꯁ꯭ꯃꯥꯔꯠ ꯑꯣꯏꯕ ꯑꯃꯁꯨꯡ ꯂꯥꯏꯅ ꯐꯪꯕ ꯉꯝꯕ ꯑꯦꯗꯖ ꯗꯤꯚꯥꯏꯁꯤꯡꯗ ꯁꯥꯕ ꯉꯝꯍꯟꯒꯅꯤ꯫ ꯂꯣꯏꯅ-ꯂꯣꯏꯅꯅ ꯗꯦꯇꯥ ꯄ꯭ꯔꯥꯚꯦꯁꯤꯕꯨꯁꯨ ꯍꯦꯟꯅ ꯐꯒꯠꯍꯜꯂꯒꯅꯤ, ꯃꯔꯝꯗꯤ ꯗꯤꯚꯥꯏꯁꯁꯤꯡꯗꯒꯤ ꯀ꯭ꯂ aUdt ꯗꯦꯇꯥ ꯊꯥꯕꯁꯤꯅ ꯁꯤꯀ꯭ꯌꯨꯔꯤꯇꯤꯒꯤ ꯔꯤꯁꯛ ꯍꯦꯟꯒꯠꯍꯜꯂꯤ꯫
ꯑꯦ ꯑꯥꯏ ꯆꯤꯞꯁꯤꯡꯗ ꯗꯦꯇꯥꯕꯨ ꯃꯦꯃꯣꯔꯤꯗꯒꯤ
ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡ ꯌꯨꯅꯤꯠꯁꯤꯡꯗ ꯊꯥꯕ ꯍꯥꯏꯕꯁꯤ
ꯆꯍꯤ ꯀꯌꯥꯒꯤ ꯃꯃꯥꯡꯗꯒꯤ ꯑꯆꯧꯕ ꯑꯌꯦꯠ-
ꯑꯄꯟ ꯑꯃ ꯑꯣꯏꯗꯨꯅ ꯂꯥꯛꯈꯤꯕꯅꯤ꯫ ꯃꯁꯤꯕꯨ
ꯍꯧꯖꯤꯛꯅ ꯁ꯭ꯇꯥꯟꯐꯣꯔꯗ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤꯗ ꯄꯤ
ꯑꯩꯆ ꯗꯤ ꯒ꯭ꯔꯦꯖꯨꯑꯦꯠ ꯑꯣꯏꯅ ꯂꯩꯔꯕ, ꯍꯥꯟꯅ ꯌꯨ
ꯁꯤ ꯑꯦꯜ ꯗꯤꯗ ꯂꯩꯔꯕ Weier Wan ꯅ ꯑꯁꯨꯝꯅ
ꯐꯣꯡꯗꯣꯛꯂꯤ, ‘ꯃꯦꯃꯣꯔꯤꯗꯒꯤ ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡ
ꯌꯨꯅꯤꯠꯁꯤꯡꯗ ꯗꯦꯇꯥ ꯊꯥꯕ ꯍꯥꯏꯕꯁꯤ ꯄꯨꯡ ꯑꯅꯤ
ꯊꯕꯛ ꯁꯨꯔꯅꯕꯒꯤꯗꯃꯛ ꯄꯨꯡ ꯅꯤꯄꯥꯜ ꯒꯥꯔꯤ
ꯇꯣꯡꯂꯒ ꯆꯠꯄꯒ ꯑꯝꯍꯥꯅꯤ”꯫ ꯑꯁꯤꯒꯨꯝꯕ
ꯗꯦꯇꯥ ꯊꯥꯗꯣꯛ-ꯊꯥꯖꯤꯟꯒꯤ ꯈꯨꯗꯣꯡꯆꯥꯗꯕꯁꯤ
ꯀꯣꯛꯍꯟꯅꯕꯒꯤꯗꯃꯛ, ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ
ꯔꯤꯖꯤꯁꯇꯤꯚ ꯔꯥꯟꯗꯝ-ꯑꯦꯁꯦꯁ ꯃꯦꯃꯣꯔꯤ (ꯑꯥꯔ
ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ) ꯍꯥꯏꯅ ꯈꯪꯅꯔꯤꯕꯁꯤ ꯁꯤꯖꯤꯟꯅꯈꯤ꯫
ꯅꯣꯟ-ꯚꯥꯂꯥꯇꯥꯏꯜ ꯃꯦꯃꯣꯔꯤ ꯃꯈꯜ ꯑꯁꯤꯅ ꯇꯣꯉꯥꯟꯕ
ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡ ꯌꯨꯅꯤꯠꯁꯤꯡꯒꯤ ꯃꯍꯨꯠꯇ, ꯃꯦꯃꯔꯣ
ꯃꯅꯨꯡꯗꯨꯃꯛꯇ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟ ꯇꯧꯕ ꯌꯥꯍꯜꯂꯤ꯫

ꯅ꯭ꯌꯨꯔꯣꯃꯣꯔꯐꯤꯛ ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡꯒꯤꯗꯃꯛ ꯄꯤ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ
ꯑꯃꯁꯨꯡ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯃꯦꯃꯣꯔꯤ ꯇꯦꯛꯅꯣꯂꯣꯖꯤꯁꯤꯡꯕꯨ
ꯁꯥꯏꯅꯦꯞꯁ ꯑꯔꯦꯁꯤꯡ ꯑꯣꯏꯟ ꯁꯤꯖꯤꯟꯅꯕꯒꯤ ꯊꯕꯛꯁꯤ
ꯁ꯭ꯇꯥꯟꯐꯣꯔꯗꯇ ꯋꯥꯟꯒꯤ ꯑꯦꯗꯚꯥꯏꯖꯔ ꯑꯣꯏꯔꯤꯕ ꯐꯤꯂꯨꯞ ꯋꯣꯡꯒꯤ
ꯂꯦꯞꯇ ꯄꯥꯏꯈꯠꯈꯤꯕꯅꯤ꯫ ꯄꯤ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ ꯆꯤꯞꯁꯤꯡꯒ
ꯂꯣꯏꯅꯅ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟ ꯇꯧꯕꯁꯤ ꯑꯅꯧꯕ ꯑꯃꯗꯤ ꯑꯣꯏꯦ, ꯑꯗꯨꯕꯨ
ꯑꯁꯨꯝꯅ ꯇꯧꯕꯁꯤꯅ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟꯒꯤ ꯆꯨꯝꯕꯒꯤ ꯆꯥꯡ ꯍꯟꯊꯩ
ꯑꯃꯁꯨꯡ ꯆꯤꯞꯀꯤ ꯑꯥꯔꯀꯤꯇꯦꯛꯆꯔꯗ ꯀꯣꯟꯊꯣꯛ-ꯀꯣꯟꯁꯤꯟ
ꯇꯧꯕ ꯌꯥꯍꯟꯗꯦ꯫ ꯍꯥꯏꯔꯤꯕ ꯐꯤꯚꯝꯁꯤꯡ ꯑꯁꯤ NeuRRAM
ꯗꯗꯤ ꯂꯩꯇ꯭ꯔꯦ ꯍꯥꯏꯔꯤ꯫
ꯊꯤꯖꯤꯟ ꯂꯨꯄ ꯑꯁꯤꯅ ꯄꯨꯊꯣꯔꯛꯂꯤꯕ ꯆꯤꯞꯁꯤꯒꯤ ꯑꯦꯅꯔꯖꯤ
ꯏꯐꯤꯁꯤꯑꯦꯟꯁꯤ ꯑꯁꯤ ꯑꯦꯅꯔꯖꯤ-ꯗꯤꯂꯦ ꯄ꯭ꯔꯗꯛꯠ (ꯏ ꯗꯤ
ꯄꯤ) ꯍꯥꯏꯅ ꯈꯪꯅꯔꯤꯕꯁꯤꯕꯨ ꯑꯣꯜꯂꯒ ꯆꯥꯡ ꯌꯦꯡꯈꯤ꯫ ꯏ ꯗꯤ ꯄꯤꯅ
ꯑꯣꯄꯔꯦꯁꯟ ꯈꯨꯗꯤꯡꯃꯛꯇ ꯆꯪꯈꯤꯕ ꯑꯦꯅꯔꯖꯤꯒꯤ ꯆꯥꯡ ꯑꯃꯁꯨꯡ
ꯑꯣꯄꯔꯦꯁꯟ ꯑꯗꯨꯕꯨ ꯃꯄꯨꯡ ꯐꯥꯅ ꯄꯥꯡꯊꯣꯛꯄꯗ ꯆꯪꯈꯤꯕ ꯃꯇꯝ
ꯑꯅꯤꯃꯛ ꯑꯣꯜꯂꯝꯃꯤ꯫ ꯑꯁꯨꯝꯅ ꯑꯣꯟꯕꯁꯤꯗ NeuRRAM
ꯆꯤꯞꯅ ꯈ꯭ꯋꯥꯏꯗꯒꯤ ꯅꯧꯔꯕꯅꯤ ꯍꯥꯏꯅ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ
ꯆꯤꯞꯁꯤꯡꯗꯒꯤ ꯏ ꯗꯤ ꯄꯤꯗ ꯁꯔꯨꯛ 1.6 ꯇꯒꯤꯗꯅ 2.3
ꯐꯥꯎꯕ ꯍꯟꯊꯔꯝꯃꯤ (ꯍꯟꯊꯔꯤꯕꯃꯈꯩ ꯐꯕ ꯍꯦꯜꯂꯤ) ꯑꯃꯁꯨꯡ
ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯅꯦꯜ ꯗꯦꯟꯁꯤꯇꯤꯅ ꯁꯔꯨꯛ 7 ꯇꯒꯤꯅ 13 ꯐꯥꯎꯕ ꯍꯦꯜꯂꯝꯃꯤ꯫
ꯑꯦꯟꯖꯤꯅꯤꯌꯔꯁꯤꯡꯅ ꯆꯤꯞ ꯑꯁꯤꯗ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ ꯑꯦ ꯑꯥꯏ ꯇꯥꯁꯛꯁꯤꯡ ꯄꯥꯡꯊꯣꯛꯍꯟꯗꯨꯅ ꯆꯥꯡ ꯌꯦꯡꯈꯤꯕꯗ ꯈꯨꯠꯅ ꯏꯕ ꯗꯤꯖꯤꯠ ꯔꯤꯀꯣꯒꯅꯤꯁꯟ ꯇꯥꯁꯛ ꯑꯃꯗꯤ 99% ꯏꯃꯦꯖ ꯀ꯭ꯂꯥꯁꯤꯀꯦꯁꯟ ꯇꯥꯁꯛ ꯑꯃꯗ 85.7% ꯑꯗꯨꯒ ꯒꯨꯒꯜ ꯁ꯭ꯄꯤꯆ ꯀꯃꯥꯟꯗ ꯔꯤꯀꯣꯒꯅꯤꯁꯟ ꯇꯥꯁꯛ ꯑꯃꯗ 84.7% ꯆꯨꯝꯕ ꯊꯦꯡꯅꯔꯝꯃꯤ꯫ ꯃꯁꯤꯒꯤꯁꯨ ꯃꯊꯛꯇ ꯆꯤꯞ ꯑꯗꯨꯅ ꯏꯃꯦꯖ-ꯔꯤꯀꯣꯚꯔꯌ ꯇꯥꯁꯛ ꯑꯃꯗꯤ ꯏꯃꯦꯖ-ꯔꯤꯀꯟꯁ꯭ꯔꯛꯁꯟ ꯏꯔꯔꯗ 70% ꯍꯟꯊꯍꯟꯕ ꯉꯝꯈꯤꯔꯝꯃꯤ꯫ ꯑꯁꯤꯒꯨꯝꯕ ꯃꯍꯩꯁꯤꯡꯁꯤ ꯆꯞ ꯃꯥꯟꯅꯕ ꯕꯤꯠ-ꯄ꯭ꯔꯤꯁꯤꯖꯟꯗ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯗꯤꯖꯤꯇꯦꯜ ꯆꯤꯞꯁꯤꯡꯅ ꯇꯧꯔꯤꯕꯁꯤꯡꯒ ꯃꯥꯟꯅꯩ ꯑꯗꯨꯕꯨ ꯑꯦꯅꯔꯖꯤꯗꯤ ꯑꯁꯨꯛꯀꯤ ꯃꯇꯤꯛ ꯍꯟꯊꯔꯝꯃꯤ꯫ ꯍꯥꯏꯔꯤꯕ ꯊꯕꯛꯁꯤꯡꯁꯤ ꯍꯥꯔꯗꯋ꯭ꯌꯦꯔꯗ ꯄꯥꯡꯊꯣꯛꯄꯅꯤ, ꯑꯗꯨꯕꯨ ꯍꯥꯟꯅ ꯄꯨꯊꯣꯛꯈ꯭ꯔꯕ ꯀꯝꯄ꯭ꯌꯨꯠ-ꯏꯟ-ꯃꯦꯃꯣꯔꯤ ꯀꯌꯥꯗꯗꯤ, ꯑꯦ ꯑꯥꯏ ꯕꯦꯟꯆꯃꯥꯔꯛ ꯔꯤꯖꯜꯠꯁꯤꯡꯗꯨ ꯐꯪꯕꯗ ꯁꯣꯐꯠꯋ꯭ꯌꯦꯔ ꯁꯤꯃ꯭ꯌꯨꯂꯦꯁꯟ ꯁꯤꯖꯤꯟꯅꯕꯁꯨ ꯌꯥꯎꯏ꯫ NeuRRAM ꯅ ꯑꯦꯅꯔꯖꯤ ꯌꯥꯝꯅ ꯆꯥꯗꯕꯒꯤ ꯃꯔꯨ ꯑꯣꯏꯕ ꯃꯔꯝ ꯑꯃꯗꯤ ꯃꯦꯃꯣꯔꯤꯗ ꯑꯥꯎꯠꯄꯨꯠꯄꯨ ꯈꯪꯍꯟꯕ ꯉꯝꯕ ꯄꯥꯝꯕꯩ ꯑꯃ ꯌꯥꯎꯔꯤꯕꯁꯤꯅꯅꯤ꯫ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯄꯥꯝꯕꯁꯤꯡꯗꯗꯤ ꯚꯣꯜꯇꯦꯖꯕꯨ ꯏꯟꯄꯨꯠ ꯑꯣꯏꯅ ꯁꯤꯖꯤꯟꯅꯔꯒ ꯀꯔꯦꯟꯕꯨ ꯑꯣꯜꯂꯤ꯫ ꯑꯗꯨꯕꯨ ꯃꯁꯤꯅ ꯍꯦꯟꯅ ꯀꯝꯄ꯭ꯂꯦꯛꯁ ꯑꯣꯏꯕ ꯑꯃꯁꯨꯡ ꯍꯦꯟꯅ ꯑꯦꯅꯔꯖꯤ ꯆꯪꯕ ꯁꯔꯀꯤꯠꯁꯤꯡ ꯃꯊꯧ ꯇꯥꯍꯜꯂꯤ꯫ NeuRRAM ꯗꯗꯤ, ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ ꯚꯣꯜꯇꯦꯖꯕꯨ ꯈꯪꯕ ꯉꯝꯕ ꯅ꯭ꯌꯨꯔꯣꯟ ꯁꯔꯀꯤꯠ ꯑꯃ ꯁꯦꯝꯃꯤ ꯑꯗꯨꯒ ꯑꯦꯅꯔꯖꯤ ꯏꯆꯪ ꯆꯪꯍꯟꯗꯅ ꯑꯅꯥꯂꯣꯒꯄꯨ ꯗꯤꯖꯤꯇꯦꯜꯗ ꯑꯣꯟꯊꯣꯛꯏ꯫ ꯑꯁꯤꯒꯨꯝꯕ ꯚꯣꯜꯇꯦꯖ-ꯃꯣꯗ ꯁꯦꯟꯁꯤꯡ ꯑꯁꯤꯅ ꯀꯝꯄ꯭ꯌꯨꯇꯤꯡ ꯁꯥꯏꯀꯜ ꯑꯃꯈꯛꯇꯗ ꯄꯤ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ ꯑꯔꯦ ꯑꯃꯒꯤ ꯔꯣ ꯄꯨꯝꯅꯃꯛ ꯑꯃꯁꯨꯡ ꯀꯣꯂꯝ ꯄꯨꯝꯅꯃꯛ ꯑꯦꯛꯇꯤꯚꯦꯠ ꯇꯧꯕ ꯉꯝꯃꯤ꯫ NeuRRAM ꯑꯔꯀꯤꯇꯦꯛꯆꯔꯗ, ꯁꯤ ꯑꯦꯝ ꯑꯣ ꯑꯦꯁ ꯅ꯭ꯌꯨꯔꯣꯟ ꯁꯔꯀꯤꯠꯁꯤꯡꯁꯨ ꯐꯤꯖꯤꯀꯦꯜꯒꯤ ꯑꯣꯏꯅ ꯄꯤ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ ꯋꯦꯏꯠꯁꯤꯡꯒ ꯊꯪꯅ-ꯊꯪꯅꯅ ꯁꯤꯟꯗꯣꯛ-ꯁꯤꯟꯖꯤꯟ ꯇꯧꯏ꯫ ꯃꯁꯤ ꯁꯤ ꯑꯦꯝ ꯑꯣ ꯁꯔꯀꯤꯠꯁꯤꯡꯕꯨ ꯑꯥꯔ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ ꯋꯦꯏꯠꯁꯤꯡꯒꯤ ꯃꯇꯥꯏꯔꯣꯝꯗ ꯂꯩꯍꯜꯂꯤꯕ ꯍꯧꯖꯤꯛꯀꯥꯟꯒꯤ ꯗꯤꯖꯥꯏꯟꯁꯤꯡꯗꯒꯤ ꯇꯣꯞ-ꯇꯣꯞꯄꯤ꯫ ꯅ꯭ꯌꯨꯔꯣꯟꯒ ꯄꯤ ꯑꯥꯔ ꯑꯦ ꯑꯦꯝ ꯑꯔꯦꯒ ꯁꯝꯅꯔꯤꯕꯁꯤꯅ ꯅ꯭ꯌꯨꯔꯣꯟꯗꯨꯒꯤ ꯏꯟꯄꯨꯠ ꯅꯠꯇ꯭ꯔꯒ ꯑꯥꯎꯠꯄꯨꯠ ꯑꯣꯏꯅ ꯁꯤꯖꯤꯟꯅꯕ ꯌꯥꯍꯜꯂꯤ꯫
ꯑꯦ ꯑꯥꯏ ꯀꯝꯄ꯭ꯌꯨꯇꯦꯁꯟꯁꯤꯡꯕꯨ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟ ꯅ꯭ꯌꯨꯔꯜ ꯅꯦꯠꯋꯔꯛ ꯑꯥꯔꯀꯤꯇꯦꯛꯆꯔꯁꯤꯡꯗ ꯌꯥꯝꯅ ꯆꯨꯝꯅ ꯄꯥꯡꯊꯣꯛꯄ ꯌꯥꯍꯟꯅꯕꯒꯤꯗꯃꯛꯇ ꯂꯨꯞ ꯑꯁꯤꯅ ꯍꯥꯔꯗꯋ꯭ꯌꯦꯔ ꯀꯣ-ꯑꯣꯞꯇꯤꯃꯥꯏꯖꯦꯁꯟ ꯇꯦꯛꯅꯤꯛ ꯀꯌꯥꯃꯨꯛ ꯁꯤꯖꯤꯟꯅꯈꯤ꯫ ꯇꯦꯛꯅꯤꯛꯁꯤꯡ ꯃꯔꯩ ꯃꯔꯩ ꯇꯥꯁꯤꯟꯕ ꯅ꯭ꯌꯨꯔꯜ ꯅꯦꯠꯋꯔꯛꯁꯤꯡ, ꯑꯁꯥꯡꯕ ꯁꯣꯔꯠ-ꯇꯔꯝ ꯃꯦꯃꯣꯔꯤꯅꯆꯤꯡꯕ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ ꯅ꯭ꯌꯨꯔꯜ ꯅꯦꯠꯋꯔꯛꯁꯤꯡꯗ ꯆꯥꯡ ꯌꯦꯡꯕꯗ ꯃꯥꯏ ꯄꯥꯛꯂꯝꯃꯤ꯫
ꯅ꯭ꯌꯨꯔꯣꯃꯣꯔꯐꯤꯛ ꯑꯦ ꯑꯥꯏ ꯄ꯭ꯔꯣꯁꯦꯁꯔ
Am AoIrib, NeuRRAM gi
ꯅ꯭ꯌꯨꯔꯣꯁꯥꯏꯅꯦꯞꯇꯤꯛ ꯀꯣꯔ 48 ꯅ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ
ꯄ꯭ꯔꯣꯁꯦꯁꯤꯡꯒ ꯈꯝꯕ꯭ꯔꯥꯡꯅꯅ ꯃꯊꯧ ꯇꯧꯏ꯫
ꯃꯇꯝ ꯑꯃꯠꯇ ꯑꯦꯗꯥꯞꯇꯦꯕꯤꯂꯤꯇꯤ ꯑꯃꯁꯨꯡ
ꯏꯐꯤꯁꯤꯑꯦꯟꯁꯤ ꯋꯥꯡꯅ ꯐꯪꯍꯟꯅꯕꯒꯤꯗꯃꯛ
NeuRRAM ꯅ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟ ꯗꯦꯇꯥꯁꯤꯡꯗ
ꯄꯦꯔꯦꯂꯦꯜ ꯏꯟꯐꯔꯦꯟꯁꯀꯤꯗꯃꯛ ꯀꯣꯔ ꯃꯌꯥꯝ
ꯑꯃꯗ ꯅ꯭ꯌꯨꯔꯜ ꯅꯦꯠꯋꯔꯛ ꯃꯣꯗꯦꯜꯗꯨꯒꯤ ꯃꯔꯣꯜ
ꯑꯃꯕꯨ ꯃꯦꯄꯤꯡ ꯇꯧꯔꯒ ꯗꯦꯇꯥ ꯄꯔꯦꯂꯦꯂꯤꯖꯝ
ꯁꯦꯝꯂꯝꯃꯤ꯫ ꯑꯗꯨꯒ NeuRRAM ꯅ ꯇꯣꯉꯥꯟ
ꯇꯣꯉꯥꯟꯕ ꯀꯣꯔꯁꯤꯡꯗ ꯃꯣꯗꯦꯜ ꯑꯃꯒꯤ ꯇꯣꯉꯥꯟ
ꯇꯣꯉꯥꯟꯕ ꯃꯔꯣꯜꯁꯤꯡꯕꯨ ꯃꯦꯄꯤꯡ ꯇꯧꯔꯒ
ꯃꯣꯗꯦꯜ-ꯄꯦꯔꯦꯂꯦꯂꯤꯖꯝ ꯁꯦꯝꯃꯤ ꯑꯗꯨꯒ
ꯄꯥꯏꯞꯂꯥꯏꯅ ꯐꯦꯁꯟ ꯑꯃꯗ ꯏꯟꯐꯔꯦꯟꯁꯁꯤꯡ
ꯄꯥꯡꯊꯣꯛꯍꯜꯂꯤ꯫ ꯃꯇꯧ ꯑꯁꯨꯝꯅ ꯁꯦꯝꯒꯠꯂꯛꯂꯤꯕ
ꯅ꯭ꯌꯨꯔꯣꯃꯣꯔꯃꯤꯐ ꯆꯤꯞ ꯑꯃꯅ ꯑꯦ ꯑꯥꯏꯒꯤ ꯇꯥꯁꯛ
ꯀꯌꯥꯃꯨꯛ ꯄꯥꯡꯊꯣꯛꯍꯟꯕ ꯉꯝꯂꯒꯅꯤ ꯍꯥꯏꯅ
ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ ꯐꯣꯡꯗꯣꯔꯛꯂꯤ꯫ =

- ÿ- ꯑꯦꯗꯤꯇꯔꯗ ꯊꯥꯔꯛꯄ ꯆꯤꯊꯤ -ÿ-

ꯔꯨꯞ-ꯃꯍꯜ ꯊꯤꯑꯦꯇꯔꯒꯤ ꯃꯐꯝꯗ ꯋꯥꯐꯝ ꯑꯃꯇꯪ
ꯏꯀꯥꯏꯈꯨꯝꯅꯖꯔꯤꯕ ꯑꯦꯗꯤꯇꯔ,
ꯑꯊꯧꯕꯁꯤꯡꯒꯤ ꯅꯨꯃꯤꯠ ꯑꯣꯒꯁꯠ 13 ꯗ ꯔꯨꯞ-ꯃꯍꯜ ꯊꯤꯑꯦꯇꯔꯅ ꯃꯩꯇ꯭ꯔꯝ ꯕꯤꯔꯅ ꯏꯕꯤꯔꯝꯕ ꯕꯤꯔ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠ ꯗ꯭ꯔꯥꯃꯥ ꯆꯍꯤ ꯀꯌꯥꯒꯤ ꯃꯃꯥꯡꯗꯒꯤ ꯉꯁꯤ ꯐꯥꯎꯕ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯃꯤꯌꯥꯝꯗ ꯈꯨꯗꯣꯜ ꯇꯝꯗꯨꯅ ꯂꯥꯛꯄꯤꯔꯤ꯫ ꯑꯗꯨꯒ ꯍꯥꯏꯔꯤꯕ ꯗ꯭ꯔꯥꯃꯥꯁꯤꯃꯛ ꯑꯀꯥꯁꯕꯥꯅꯤ ꯏꯝꯐꯥꯜꯅ 1977 ꯗ ꯔꯦꯀꯣꯔꯗꯤꯡ ꯂꯧꯕꯤꯔꯒ ꯑꯊꯧꯕꯁꯤꯡꯒꯤ ꯅꯨꯃꯤꯠ ꯑꯣꯒꯁꯠ 13 ꯑꯃꯗꯤ ꯆꯍꯤ ꯈꯨꯗꯤꯡꯒꯤ ꯇꯥꯍꯟꯕꯤꯔꯤ꯫ ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤꯒ ꯃꯇꯥꯡ ꯑꯃꯗ ꯃꯇꯝꯗꯨꯒꯤ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯄꯣꯂꯤꯇꯤꯀꯦꯜ ꯑꯦꯖꯦꯟꯠ ꯃꯤꯁꯇꯔ ꯒ꯭ꯔꯤꯝꯋꯨꯗꯅ Mr. Cossin, ꯑꯁꯁꯤꯁꯇꯥꯅꯇ ꯈꯦꯆꯔꯦꯇꯥꯔꯌ to the Chief Commissioner of Assam g loInn yubraj tikeNdrBjiT Amdi ꯊꯥꯡꯒꯥꯜ ꯖꯦꯅꯔꯦꯜ ꯑꯅꯤꯅ ꯋꯥꯇꯥꯅꯗꯨꯅ ꯂꯩꯔꯤꯉꯩꯗ ꯎꯅꯕ ꯂꯥꯛꯄꯒꯤ ꯃꯇꯥꯡ ꯑꯃ ꯌꯥꯎꯏ, ꯃꯗꯨꯗ ꯃꯤꯁꯇꯔ ꯒ꯭ꯔꯤꯝꯋꯨꯗꯅ ꯌꯨꯕꯔꯥꯖ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠꯇ ꯑꯁꯨꯝꯅ ꯍꯥꯏꯕ ꯑꯃ ꯌꯥꯎꯏ "Last ꯙꯥꯌ 23ꯔꯗ May Administration ꯙꯨꯔꯕꯥꯔꯌꯨꯕꯔꯥꯖ ꯌꯥꯎꯗ꯭ꯔꯦ꯫” ꯗꯥꯏꯂꯣꯒ ꯑꯁꯤꯃꯛ ꯑꯀꯥꯁꯕꯥꯅꯤ ꯏꯝꯐꯥꯜꯅ ꯁꯟꯗꯣꯛꯄꯤꯔꯤꯕ ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤꯒꯤ ꯃꯤꯅꯤꯠ 30 ꯆꯠꯄ ꯑꯗꯨꯋꯥꯏꯗ ꯊꯦꯡꯅꯕꯤꯒꯅꯤ, ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤ ꯍꯧꯖꯤꯛꯇꯤ ꯌꯨꯇ꯭ꯌꯨꯕꯇꯁꯨ ꯐꯪꯂꯦ꯫ ꯃꯇꯥꯡ ꯑꯁꯤꯗ ꯋꯥꯐꯝ ꯑꯃꯈꯛ ꯊꯝꯖꯒꯦ, ꯌꯨꯕꯔꯥꯖ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠ, ꯃꯅꯥꯎ ꯏꯕꯨꯡꯉꯣꯁꯤꯡ ꯑꯉꯧꯁꯅꯥ ꯑꯃꯁꯨꯡ ꯖꯤꯂꯥꯉꯝꯕ ꯍꯣꯏꯅ ꯃꯇꯝꯗꯨꯒꯤ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯅꯤꯡꯊꯧ ꯃꯍꯥꯔꯥꯖ ꯁꯨꯔꯆꯟꯗ꯭ꯔꯒꯤ ꯃꯊꯛꯇ ꯂꯥꯟ ꯍꯧꯕꯁꯤ 1890 ꯒꯤ ꯁꯦꯞꯇꯦꯝꯕꯔꯒꯤ 21 ꯑꯃꯁꯨꯡ 22 ꯒꯤ ꯂꯣꯟꯅꯕ ꯑꯍꯤꯡꯗꯅꯤ꯫ ꯁꯦꯞꯇꯦꯝꯕꯔ 22, 1890 ꯗ ꯃꯍꯥꯔꯥꯖ ꯁꯨꯔꯆꯟꯗ꯭ꯔꯅ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯅꯤꯡꯊꯧ ꯈꯨꯚꯝ ꯊꯥꯗꯣꯛꯂꯝꯂꯒ ꯃꯅꯤꯄꯨꯔ ꯊꯥꯗꯣꯛꯇꯨꯅ ꯆꯠꯈꯤ꯫ ꯃꯁꯤꯒꯤ ꯃꯇꯨꯡꯗ ꯃꯍꯥꯛꯅ ꯕ꯭ꯔꯤꯇꯤꯁ ꯏꯟꯗꯤꯌꯥꯗ ꯋꯥꯀꯠꯂꯨꯔꯕ ꯃꯇꯨꯡ ꯑꯁꯥꯝꯒꯤ Chief Commissioner Mr. Quinton ꯅꯥ ꯃꯅꯤꯄꯨꯔꯗ ꯂꯥꯛꯄꯒꯤ ꯃꯥꯔꯆ 22, 1891 ꯗꯅꯤ꯫ Chief Commissioner Mr. Quintonn ꯌꯨꯕꯔꯥꯖ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠ ꯌꯥꯎꯔꯒ ꯗꯔꯕꯥꯔ ꯇꯧꯅꯕ
ꯍꯣꯠꯅꯈꯤ, ꯏꯀꯣꯟ ꯀꯣꯟꯅ ꯗꯔꯕꯥꯔ ꯇꯧꯅꯕ ꯍꯣꯠꯅꯈꯤꯕꯅ ꯃꯥꯔꯆ 23, 1891 ꯗꯅꯤ꯫ ꯃꯁꯤꯗꯁꯨ ꯃꯥꯏ ꯄꯥꯛꯂꯛꯇꯕꯗꯒꯤ 1891 ꯒꯤ ꯃꯥꯔꯆ 23 ꯑꯃꯁꯨꯡ 24 ꯒꯤ ꯂꯣꯟꯅꯕ ꯑꯍꯤꯡ (ꯃꯥꯔꯆ 24 ꯒꯤ ꯑꯉꯟꯕ ꯑꯌꯨꯛ) ꯇ ꯁꯅꯥ ꯀꯣꯅꯨꯡꯗ ꯂꯥꯟꯗꯥꯁꯤꯟꯈꯤ, ꯃꯁꯤꯒꯤ ꯐꯜ ꯑꯣꯏꯅ ꯕ꯭ꯔꯤꯇꯤꯁ ꯑꯣꯐꯤꯁꯔ 4 ꯑꯃꯗꯤ ꯕꯦꯡꯒꯨꯟ ꯈꯣꯡꯕ ꯑꯃꯒꯤ ꯃꯉꯛ ꯀꯛꯇꯨꯅ ꯍꯥꯠꯈꯤ, ꯄꯣꯂꯤꯇꯤꯀꯦꯜ ꯑꯦꯖꯦꯟꯠ ꯃꯤꯁꯇꯔ ꯒ꯭ꯔꯤꯝꯋꯨꯗꯇꯤ ꯄꯨꯈ꯭ꯔꯝꯕ ꯀꯥꯖꯥꯎꯅ ꯇꯥꯅ ꯊꯤꯟꯕꯗꯤ ꯁꯤꯔꯕ ꯃꯇꯨꯡꯗ ꯀꯣꯟꯅ ꯃꯉꯛ ꯑꯃꯨꯛ ꯀꯛꯈꯤ꯫ ꯃꯁꯤꯒꯤ ꯃꯇꯨꯡ ꯇꯥꯔꯛꯄꯗ ꯃꯅꯤꯄꯨꯔꯅ ꯕ꯭ꯔꯤꯇꯤꯁꯀꯤ ꯃꯊꯛꯇ 1891 ꯒꯤ ꯃꯥꯔꯆ 25 ꯗ ꯂꯥꯟ ꯂꯥꯎꯊꯣꯛꯇꯨꯅ ꯑꯃꯗꯤ ꯕ꯭ꯔꯤꯇꯤꯁꯅꯁꯨ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯃꯊꯛꯇ 1891 ꯒꯤ ꯃꯥꯔꯆ 31 ꯗ ꯂꯥꯟ ꯂꯥꯎꯊꯣꯛꯇꯨꯅ 1891 ꯒꯤ ꯑꯦꯡꯂꯣ ꯃꯅꯤꯄꯨꯔꯤ ꯂꯥꯟ ꯊꯣꯛꯈꯤ꯫ ꯂꯥꯟ ꯑꯁꯤꯗ ꯃꯅꯤꯄꯨꯔꯤꯁꯤꯡꯅ ꯃꯥꯏꯊꯤꯕꯗꯒꯤ ꯕ꯭ꯔꯤꯇꯤꯁꯅ ꯃꯅꯤꯄꯨꯔ ꯂꯧꯁꯤꯟꯕꯁꯤ ꯑꯦꯄ꯭ꯔꯤꯜ 27, 1981 ꯗꯅꯤ꯫ ꯃꯔꯝ ꯑꯁꯤꯅ "Last ꯙꯥꯌ 23ꯔꯗ May Administration ꯙꯨꯔꯕꯥꯔ ꯌꯨꯕꯔꯥꯖ ꯌꯥꯎꯗ꯭ꯔꯦ”ꯍꯥꯏꯕꯁꯤꯗ ꯌꯥꯎꯔꯤꯕ 23ꯔꯗ May ꯍꯥꯏꯔꯤꯕꯁꯤ ꯆꯨꯝꯐꯝ ꯊꯣꯛꯇꯦ, ꯃꯁꯤ 23ꯔꯗ March ꯍꯥꯏꯒꯗꯕ ꯑꯣꯏꯒꯅꯤ ꯍꯥꯏꯅ ꯈꯜꯂꯤ꯫ ꯑꯩꯍꯥꯛ ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤ 20 ꯗꯒꯤ ꯇꯥꯗꯅ ꯌꯦꯡꯖꯈ꯭ꯔꯦ, ꯏꯀꯣꯟ ꯀꯣꯟꯅ ꯌꯦꯡꯖꯈꯤꯕꯁꯤ ꯍꯧꯈꯤꯕ ꯑꯣꯒꯁꯠ 13 ꯒꯤ ꯅꯨꯃꯤꯗꯥꯡꯋꯥꯏꯔꯝ ꯄꯨꯡ 5.30 ꯒꯤ ꯁꯣ ꯑꯗꯨꯗꯅꯤ, ꯃꯁꯤꯗꯁꯨ 23ꯔꯗ May ꯍꯥꯏꯅ ꯑꯁꯨꯝꯃꯛ ꯍꯥꯏꯔꯤ꯫
ꯑꯔꯣꯏꯕꯗ ꯋꯥꯐꯝ ꯑꯁꯨ ꯔꯨꯞ-ꯃꯍꯜ ꯊꯤꯑꯦꯇꯔꯅ ꯀꯨꯞꯅ ꯑꯃꯨꯛꯇꯪ ꯈꯟꯅꯕꯤꯔꯒ ꯆꯍꯤ ꯈꯨꯗꯤꯡꯒꯤ ꯑꯊꯧꯕꯁꯤꯡꯒꯤ ꯅꯨꯃꯤꯠ ꯑꯣꯒꯁꯠ 13 ꯗ ꯑꯀꯥꯁꯕꯥꯅꯤ ꯏꯝꯐꯥꯜꯗ ꯁꯟꯗꯣꯛꯄꯤꯔꯤꯕ ꯑꯃꯗꯤ ꯔꯨꯞ-ꯃꯍꯜ ꯊꯤꯑꯦꯇꯔꯒꯤ ꯑꯥꯔꯇꯤꯁꯠꯁꯤꯡꯅ ꯁ꯭ꯇꯦꯖꯗ ꯁꯥꯟꯅꯕꯤꯔꯤꯕ ꯕꯤꯔ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠ ꯍꯥꯏꯔꯤꯕ ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤꯒ ꯄꯥꯟꯖꯈ꯭ꯔꯤꯕ ꯃꯇꯥꯡ ꯑꯁꯤꯗ ꯀꯔꯤ ꯇꯧꯕ ꯌꯥꯕꯒꯦ ꯍꯥꯏꯕꯗꯨ ꯌꯦꯡꯁꯤꯟꯕꯤꯅꯕ ꯅꯣꯜꯂꯨꯆꯤꯔ, ꯊꯤꯁꯇꯣꯔꯤꯆꯥꯂ Play ꯑꯣꯏꯕꯅ ꯁꯛ, ꯇꯥꯔꯤꯛꯅꯆꯤꯡꯕꯗ ꯑꯔꯥꯟ-ꯑꯍꯨꯏ ꯌꯥꯎꯍꯟꯖꯅꯤꯡꯗꯕꯗꯒꯤ ꯗ꯭ꯔꯥꯃꯥ ꯑꯁꯤꯕꯨ ꯌꯥꯝꯅ ꯄꯥꯝꯖꯕ ꯑꯃꯗꯤ ꯅꯨꯡꯁꯤꯖꯕ ꯑꯃ ꯑꯣꯏꯅ ꯍꯥꯏꯖꯕꯅꯤ, ꯃꯁꯤꯒꯤꯗꯃꯛ ꯔꯨꯞ-ꯃꯍꯜ ꯊꯤꯑꯦꯇꯔꯅ ꯋꯥꯔꯧꯕꯤꯒꯅꯨ꯫ ꯕꯤꯔ ꯇꯤꯀꯦꯟꯗ꯭ꯔꯖꯤꯠ ꯗ꯭ꯔꯥꯃꯥ ꯃꯇꯝ ꯁꯥꯡꯅ ꯃꯤꯌꯥꯝꯒꯤ ꯊꯣꯒꯜ ꯇꯧꯕ ꯉꯝꯕ ꯑꯣꯏꯔꯁꯅꯨ꯫ ꯑꯗꯣꯝꯒꯤ- ꯑꯥꯔ ꯀꯦ ꯑꯣꯄꯦꯟꯗ꯭ꯔꯣ, ꯀ꯭ꯌꯥꯝꯒꯩ

NeuRRAM ciPki sKtM

ꯁ꯭ꯇꯥꯟꯐꯣꯔꯗ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤꯒꯤ Philip Wong