1| Wv. w`nvb kj¨ wPwKrmvi cÖwkÿ‡Yi Rb¨ Pxb Mgb K‡ib| †mLv‡b wZwb †h j¨v‡e cÖwkÿY wb‡eb †mLv‡bi `iRvq nvZ ivLv gvÎB `iRv Ly‡j hvq| wfZ‡i wZwb we‡kl hš¿ cwiavb K‡i wmgy‡jk‡bi gva¨‡g cÖwkÿY m¤úbœ K‡ib|

K. G·cvU© wm‡÷g Kx ?

L. AvMvgx c„w\_ex n‡e b¨v‡bv‡UK‡bvjwRi c„w\_ex- e¨vL¨v Ki|

M. w`nv‡bi `iRv †Lvjvi c×wZwUi cÖhyw³ e¨vL¨v Ki|

N. cÖwkÿY MÖn‡Yi cÖwµqvwUi gvbe Kj¨v‡Y ¸iæZ¡ Av‡jvPbv Ki|

2|

B

A

S1

C1

wPÎ: 1

A

S

B

Cin

Cout

wPÎ: 2

K. KvD›Uvi Kx ?

L. gvby‡li fvlv‡K Kw¤úDUv‡ii fvlvq iƒcvšÍ‡ii mvwK©UwU e¨vL¨v Ki|

M. wPÎ-1 Gi cÖwZwbwaZ¡Kvix jwRK mvwK©U ïaygvÎ NOR †MBU w`‡q ev¯Íevqb Ki|

N. ïaygvÎ wPÎ-1 Gi cÖwZwbwaZ¡Kvix jwRK mvwK©U Øviv wPÎ-2 ev¯Íevqb m¤¢e wK ?

jwRK wP‡Îi gva¨‡g we‡kølY Ki|

3| `„k¨Kí-1: cÙv †mZz †gvU (101001)2 wU ¯ú¨vb wb‡q MwVZ| cÖwZwU ¯ú¨vb j¤^vq cÖvq

(96)16 wgUvi|

`„k¨Kí-2: cÙv †mZzi †ij ms‡hvM cÖK‡í evsjv‡`k miKvi (22)8 nvRvi †KvwU UvKv Ges Pxb miKvi (15)16 nvRvi †KvwU UvKv A\_©vqb K‡i|

K. wb‡Mkb Kx ?

L. 16+6+4 = 30 e¨vL¨v Ki|

M. `„k¨Kí-1 Abymv‡i cÙv †mZzi †gvU ˆ`N¨© KZ wK‡jvwgUvi- wbY©q Ki|

N. `„k¨Kí-2 Abymv‡i cÙv †mZzi †ij ms‡hvM cÖK‡í †Kvb miKvi †ewk A\_©vqb K‡i‡Q Zv †hv‡Mi gva¨‡g wbY©q c~e©K MvwYwZK we‡kølY `vI|

4|

Q

P

1

5

2

X

4

3

wPÎ- 1 wPÎ-2

K. †iwR÷vi Kx ?

L. mij Ki|

M. wPÎ-1 G X Gi mijxK…Z gvb‡K NAND gate w`‡q ev¯Íevqb Ki|

N. wPÎ-1 Gi 2 I 5 bs †MBU Gi mgwš^Z mvwK©U Øviv wPÎ-2 ev¯Íevqb m¤¢e wK ? we‡kølY

c~e©K gZvgZ `vI|

5|

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | X |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0  2n  n |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

wPÎ-1 wPÎ-2

K. KvD›Uvi Kx ?

L. X-OR gate mKj †gŠwjK gate Gi mgš^‡q MwVZ- e¨vL¨v Ki|

M. wPÎ-1 G X Gi mijxK…Z gvb‡K †gŠwjK †MBU w`‡q ev¯Íevqb Ki|

N. wPÎ-2 G n hw` 3 nq Zvn‡j Zvi mZ¨K mviwY I jwRK †MB‡Ui wPÎ A¼b Ki|

1| Wv. w`nvb kj¨ wPwKrmvi cÖwkÿ‡Yi Rb¨ Pxb Mgb K‡ib| †mLv‡b wZwb †h j¨v‡e cÖwkÿY wb‡eb †mLv‡bi `iRvq nvZ ivLv gvÎB `iRv Ly‡j hvq| wfZ‡i wZwb we‡kl hš¿ cwiavb K‡i wmgy‡jk‡bi gva¨‡g cÖwkÿY m¤úbœ K‡ib|

K. G·cvU© wm‡÷g Kx ?

L. AvMvgx c„w\_ex n‡e b¨v‡bv‡UK‡bvjwRi c„w\_ex- e¨vL¨v Ki|

M. w`nv‡bi `iRv †Lvjvi c×wZwUi cÖhyw³ e¨vL¨v Ki|

N. cÖwkÿY MÖn‡Yi cÖwµqvwUi gvbe Kj¨v‡Y ¸iæZ¡ Av‡jvPbv Ki|

2|

B

A

S1

C1

wPÎ: 1

A

S

B

Cin

Cout

wPÎ: 2

K. KvD›Uvi Kx ?

L. gvby‡li fvlv‡K Kw¤úDUv‡ii fvlvq iƒcvšÍ‡ii mvwK©UwU e¨vL¨v Ki|

M. wPÎ-1 Gi cÖwZwbwaZ¡Kvix jwRK mvwK©U ïaygvÎ NOR †MBU w`‡q ev¯Íevqb Ki|

N. ïaygvÎ wPÎ-1 Gi cÖwZwbwaZ¡Kvix jwRK mvwK©U Øviv wPÎ-2 ev¯Íevqb m¤¢e wK ?

jwRK wP‡Îi gva¨‡g we‡kølY Ki|

3| `„k¨Kí-1: cÙv †mZz †gvU (101001)2 wU ¯ú¨vb wb‡q MwVZ| cÖwZwU ¯ú¨vb j¤^vq cÖvq

(96)16 wgUvi|

`„k¨Kí-2: cÙv †mZzi †ij ms‡hvM cÖK‡í evsjv‡`k miKvi (22)8 nvRvi †KvwU UvKv Ges Pxb miKvi (15)16 nvRvi †KvwU UvKv A\_©vqb K‡i|

K. wb‡Mkb Kx ?

L. 16+6+4 = 30 e¨vL¨v Ki|

M. `„k¨Kí-1 Abymv‡i cÙv †mZzi †gvU ˆ`N¨© KZ wK‡jvwgUvi- wbY©q Ki|

N. `„k¨Kí-2 Abymv‡i cÙv †mZzi †ij ms‡hvM cÖK‡í †Kvb miKvi †ewk A\_©vqb K‡i‡Q Zv †hv‡Mi gva¨‡g wbY©q c~e©K MvwYwZK we‡kølY `vI|

4|

Q

P

1

5

2

X

4

3

wPÎ- 1 wPÎ-2

K. †iwR÷vi Kx ?

L. mij Ki|

M. wPÎ-1 G X Gi mijxK…Z gvb‡K NAND gate w`‡q ev¯Íevqb Ki|

N. wPÎ-1 Gi 2 I 5 bs †MBU Gi mgwš^Z mvwK©U Øviv wPÎ-2 ev¯Íevqb m¤¢e wK ? we‡kølY

c~e©K gZvgZ `vI|

5|

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | X |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0  2n  n |
| 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 1 |

wPÎ-1 wPÎ-2

K. KvD›Uvi Kx ?

L. X-OR gate mKj †gŠwjK gate Gi mgš^‡q MwVZ- e¨vL¨v Ki|

M. wPÎ-1 G X Gi mijxK…Z gvb‡K †gŠwjK †MBU w`‡q ev¯Íevqb Ki|

N. wPÎ-2 G n hw` 3 nq Zvn‡j Zvi mZ¨K mviwY I jwRK †MB‡Ui wPÎ A¼b Ki|