

# Bài Tập Cuối Kỳ

## Bài 1. Phương pháp CRC

1. Cho chuỗi bit dữ liệu 1001010101, chuỗi bit đa thức sinh  $G(x) = x^5 + x^4 + x^2 + 1$ . Tính chuỗi bit được truyền đi trên mạng

$$x^5 + x^4 + x^2 + 1 = 1x^5 + 1x^4 + 0x^3 + 1x^2 + 0x + 1x^0$$

$$= 110101$$

$$R = 5$$

$$\Rightarrow 100101010100000$$

$  \begin{array}{r}  100101010100000 \\  \underline{110101} \\  100000 \\  \underline{110101} \\  101011 \\  \underline{110101} \\  111100 \\  \underline{110101} \\  100110 \\  \underline{110101} \\  100110 \\  \underline{110101} \\  100110 \\  \underline{110101} \\  100110  \end{array}  $	$  \begin{array}{r}  110101 \\  1111011111  \end{array}  $
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$$\begin{array}{r}
 100110 \\
 \underline{110101} \\
 100110 \\
 \underline{110101} \\
 100110 \\
 \underline{110101} \\
 100110
 \end{array}$$

$KR = 1001010101$   
10011

27 chuỗi bit 0101101010 với  $f(x) = x^4 + x + 1$

$$x^4 + x + 1 \Rightarrow 10011$$

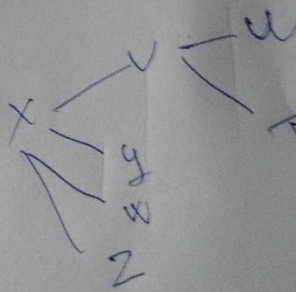
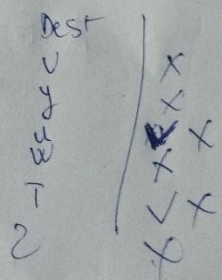
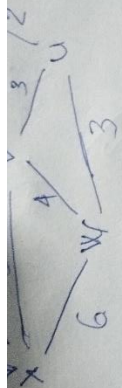
$$\Rightarrow 01011010100000 \quad R=4$$

$  \begin{array}{r}  01011010100000 \\  \underline{10110} \\  10011 \\  \underline{10110} \\  10011 \\  \underline{10110} \\  10011 \\  \underline{10100} \\  10011 \\  \underline{11100} \\  10011 \\  \underline{1111}  \end{array}  $	$  \begin{array}{r}  10011 \\  0101010 \\  101  \end{array}  $
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$\rightarrow$  chuỗi bit được chia hết dư 4

$$01011010101111$$

STI		y	z	T	V	W	U
1.	x	6x	8x	∞	3x	6x	∞
	xv	<del>6x</del>	<del>8x</del>	<del>7v</del>	<del>3x</del>	<del>6x</del>	<del>6v</del>
	xvg	—	8x	7v	—	6x	6v
	xvgu	—	8x	7v	—	6x	—
	xvgu	—	8x	7v	—	6x	—
	xvgyu	—	8x	7v	—	—	—
	xvgyuT	—	8x	—	—	—	—
	xvgyuWT	—	—	—	—	—	—
	xvgyuWT.D	—	—	—	—	—	—





Bài 3.

223.1.17.0/24 +1 →  $\begin{cases} /25 (7 \text{ host-ID}) : B \\ /25 (7 \text{ host-ID}) + 1 \end{cases}$

$\begin{cases} /26 (6 \text{ host-ID}) : A \\ /26 (6 \text{ host-ID}) \end{cases}$

STT	Network	host ID	Subnet	broadcast	Miền IP
1	11011111.00000001 00010001.00000000 223.1.17.0/25	7	B		
			AC		
2	11011111.00000001 00010001.10000000 223.1.17.128/26	6	A		
	11011111.00000001 00010000.1.11000000 223.1.17.192/26		C		

/24 (86.11) + 2 /26 (66.11) : A  
 : B  
 : C  
 877 Network (223.1.17.0/24)

STT Network  
 1 10111111.00000001  
 10010001.00000000  
 223.1.17.0/24  
 11011111.00000001  
 00010001.01000000  
 223.1.17.64/26  
 11011111.00000001.00010001  
 10000000  
 223.1.17.128/26

Host ID	Phong
6	A
	B
	C

Subnet

- A 223.1.17.1 → 223.1.17.62/26
- B 223.1.17.65 → 223.1.17.126/26
- C 223.1.17.129 → 223.1.17.190/26

Host-ID 1

6 host-ID

Subnet broadcast N/A IP

AC

A