Part 1

① We synchronise using multiple techniques and methods but mainly we
use:
- Baud Rate , Start Bit, And End (stop)bits

② 1- It cant detect Errorbits inside the data Bits

2- Framing errors where the receiver doesn't identify the start &
stop correctly

③ No, UART provides a limited number of Baud rates.

④ Advantages: • Reduced pin count
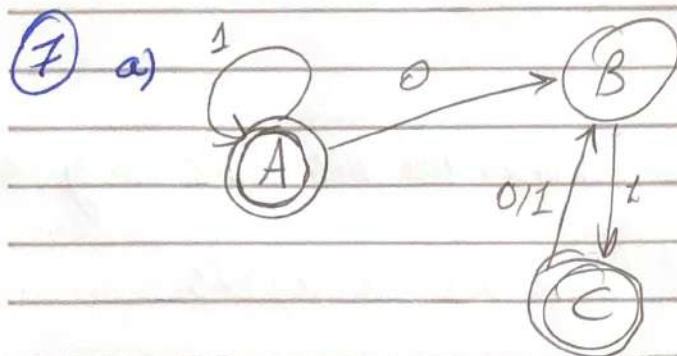   • Simplified wiring
             • Faster Communication
             • Lower Power Consumption

Disadvantages: Complex protocol
              Propagation delay
              Limited flexability
              Signal integraty.

⑤ Bidirectional Communication, Wired-OR Configuration,
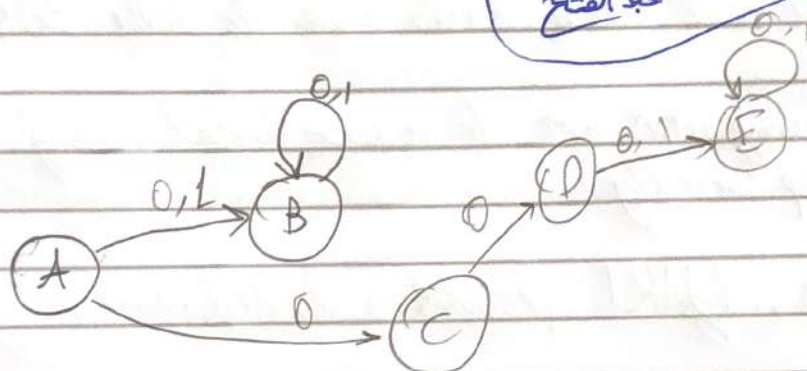Compatibility, Bus Arbitration, simple hardware, Noise
reduction

1

(6) Part 2:-

(7) a)

8

b)

	0	1
A	{B, C}	B
B	B	B
C	D	−
D	E	E
E	E	E
{B,C}	{B,D}	B
{B,D}	{B,D,C}	{B,E}
{B,D,C}	{B,C,E}	{B,E}
{B,E}	{B,E}	{B,E}

2