



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

CSPS-106 Computer Organization

Lecture-11

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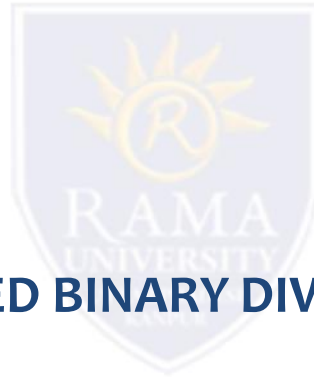
OUTLINE

➤ **BOOTH'S ALGORITHM**

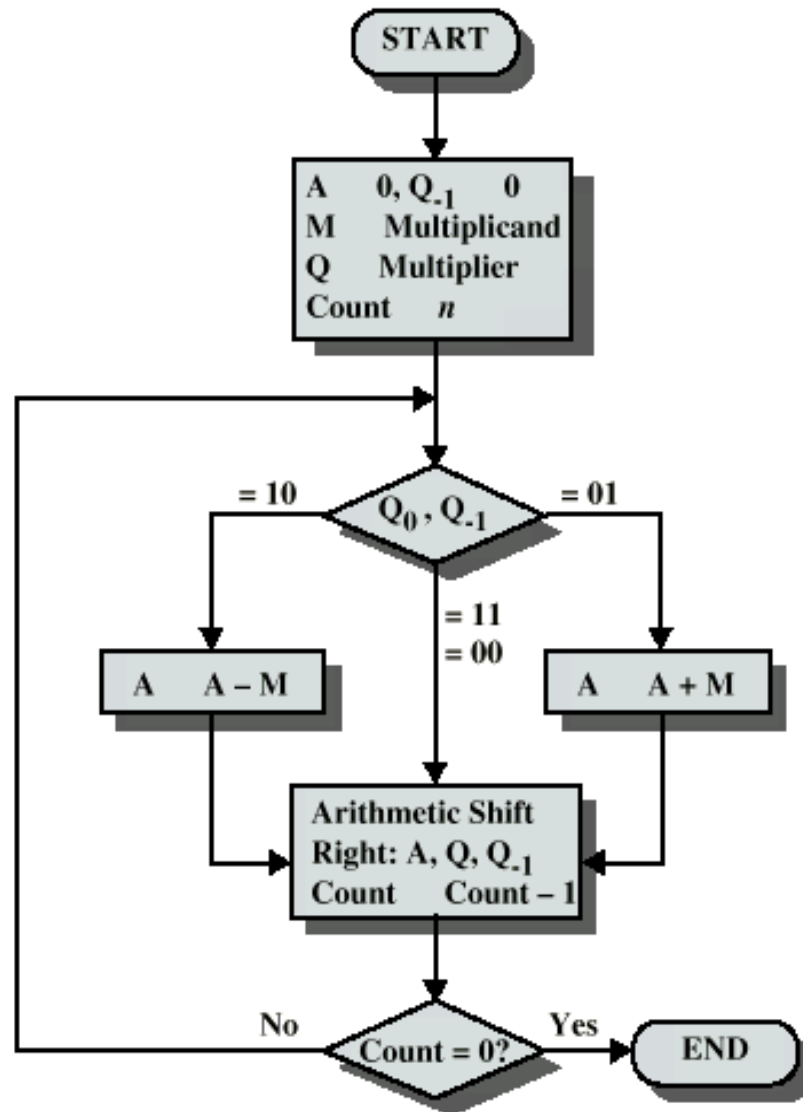
➤ **EXAMPLE OF BOOTH'S ALGORITHM**

➤ **DIVISION**

➤ **FLOWCHART FOR UNSIGNED BINARY DIVISION**



BOOTH'S ALGORITHM



EXAMPLE OF BOOTH'S ALGORITHM

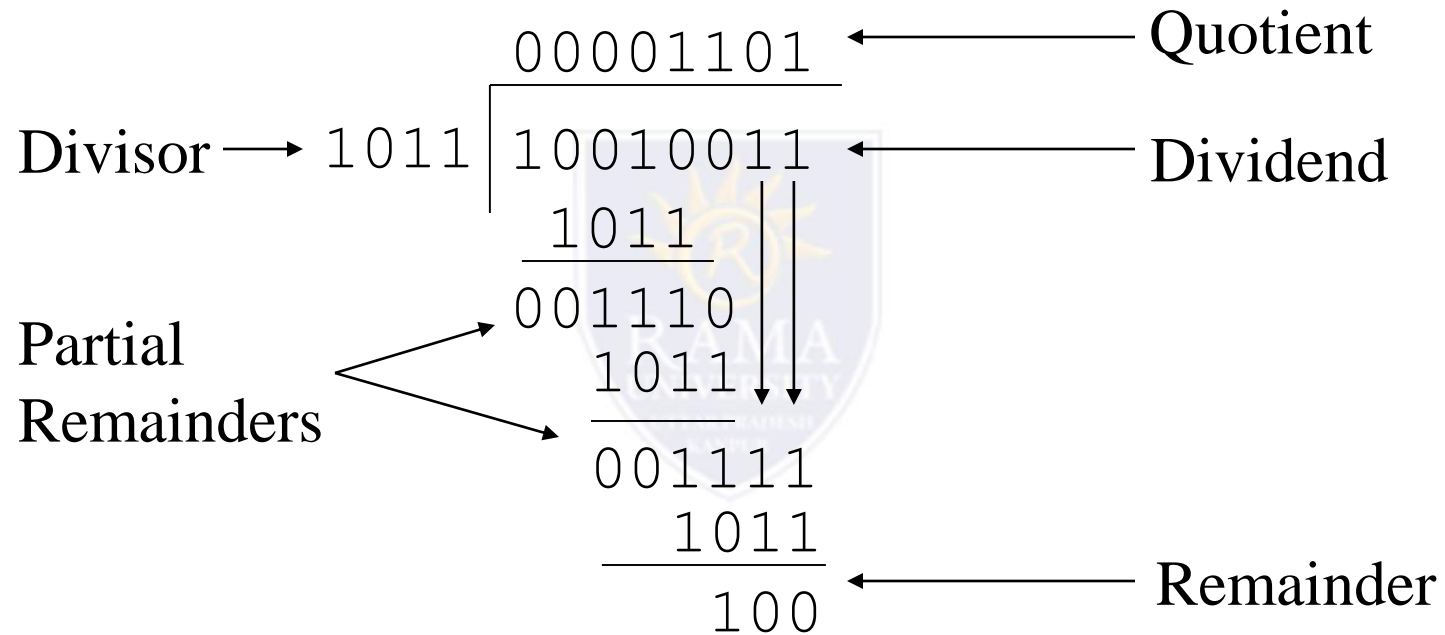
A	Q	Q ₋₁	M		
0000	0011	0	0111	Initial Values	
1001	0011	0	0111	A	} First Cycle
1100	1001	1	0111	A - M Shift	
1110	0100	1	0111	Shift	} Second Cycle
0101	0100	1	0111	A	
0010	1010	0	0111	A + M Shift	} Third Cycle
0001	0101	0	0111	Shift	
					} Fourth Cycle

DIVISION

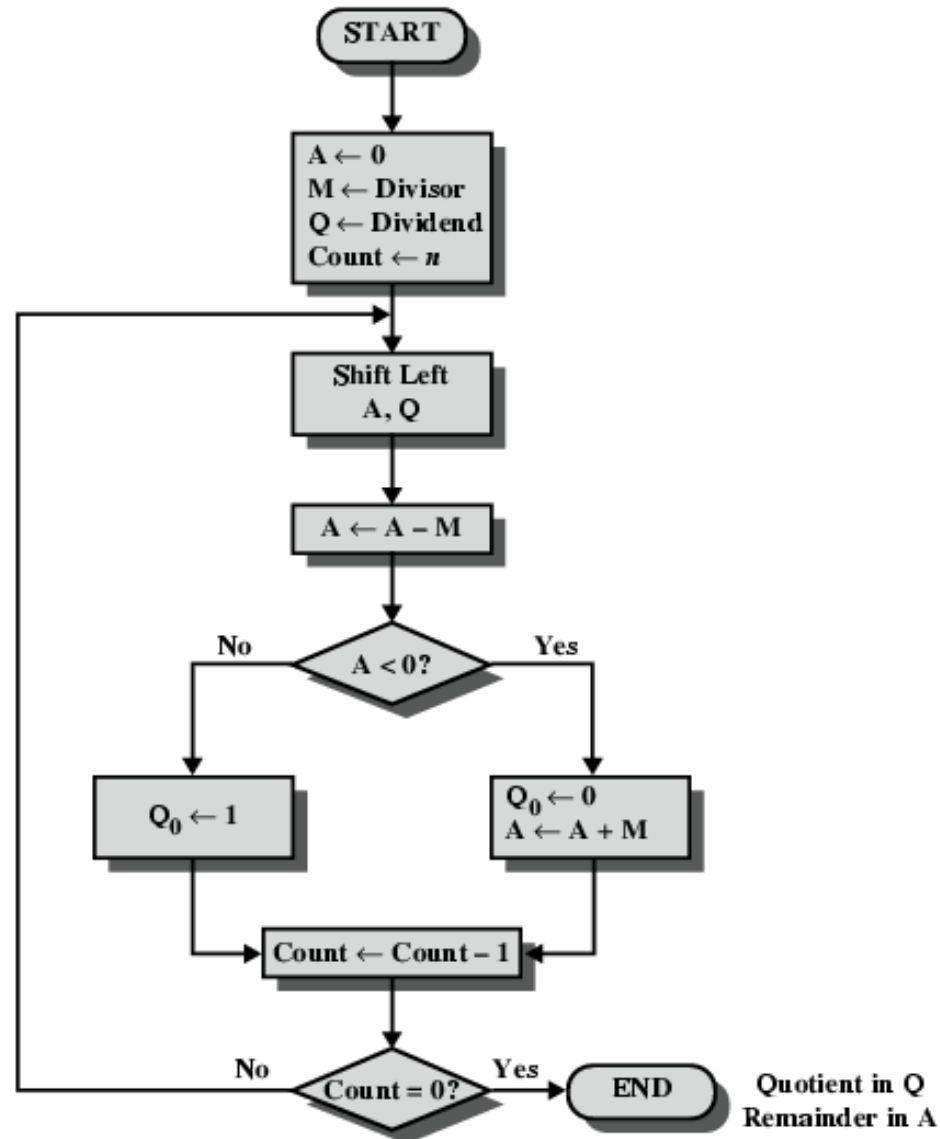
- More complex than multiplication
- Negative numbers are really bad!
- Based on long division



DIVISION OF UNSIGNED BINARY INTEGERS



FLOWCHART FOR UNSIGNED BINARY DIVISION



Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	error correction, the receiver asks the sender to send the data again.	backward	retransmission	forward	none of the above
2	We can divide coding schemes into two broad categories: and coding.	block;linear	linear;nonlinear	block;convolution	none of the above
3	generator that contains a factor of x can detect all odd-numbered errors.	x	$x+1$	1	$x+n$
4	The divisor in a cyclic code is normally called the	degree	generator	redundancy	none of the above
5	the Hamming distance between a dataword and the corresponding codeword is three, there are bits in error.	3	4	5	8

REFERENCES

- <http://www.engppt.com/search/label/Computer%20Organization%20and%20Architecture>
- <http://www.engppt.com/search/label/Computer%20Architecture%20ppt>

