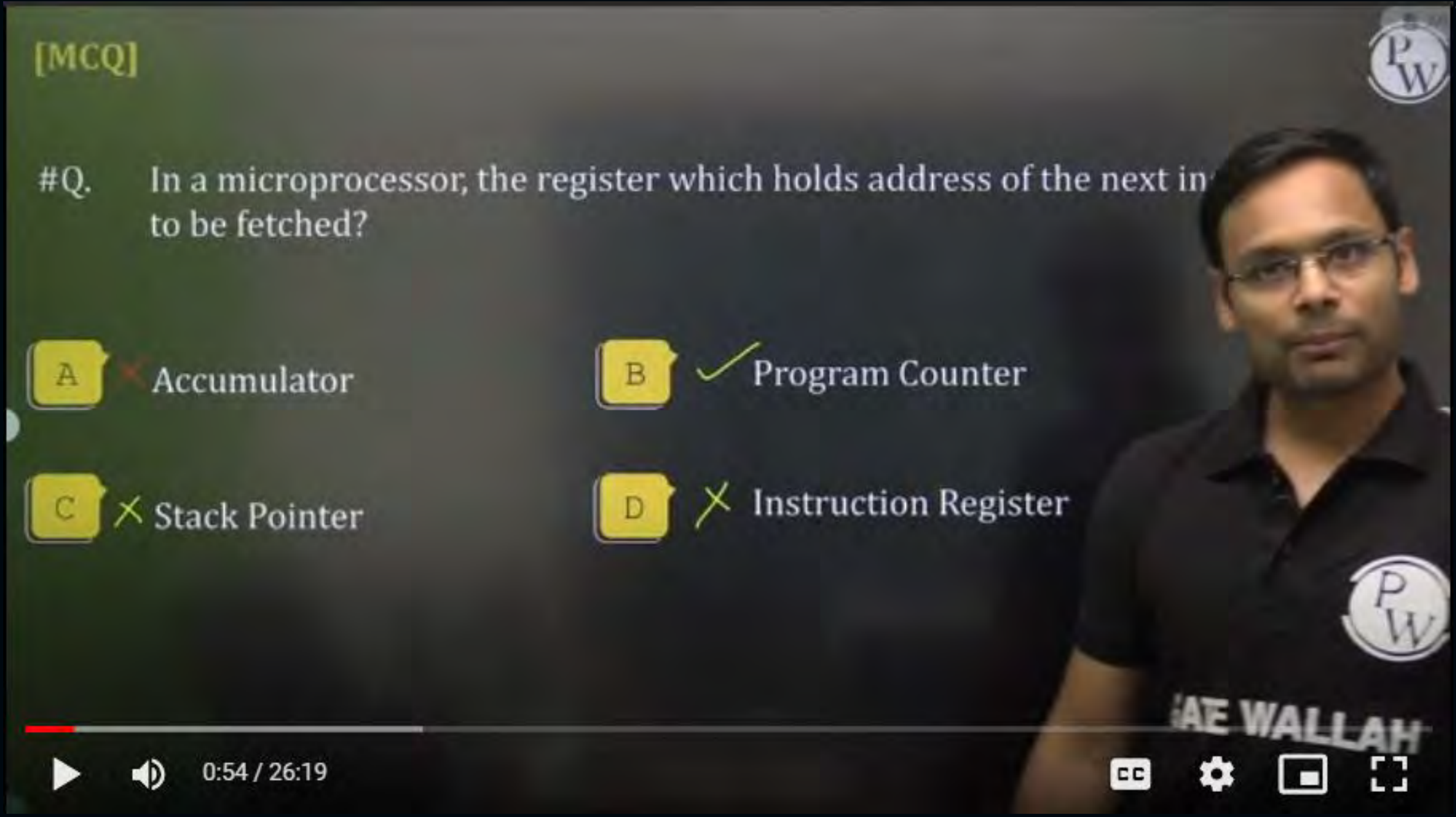
CS & IT ENGINEERING

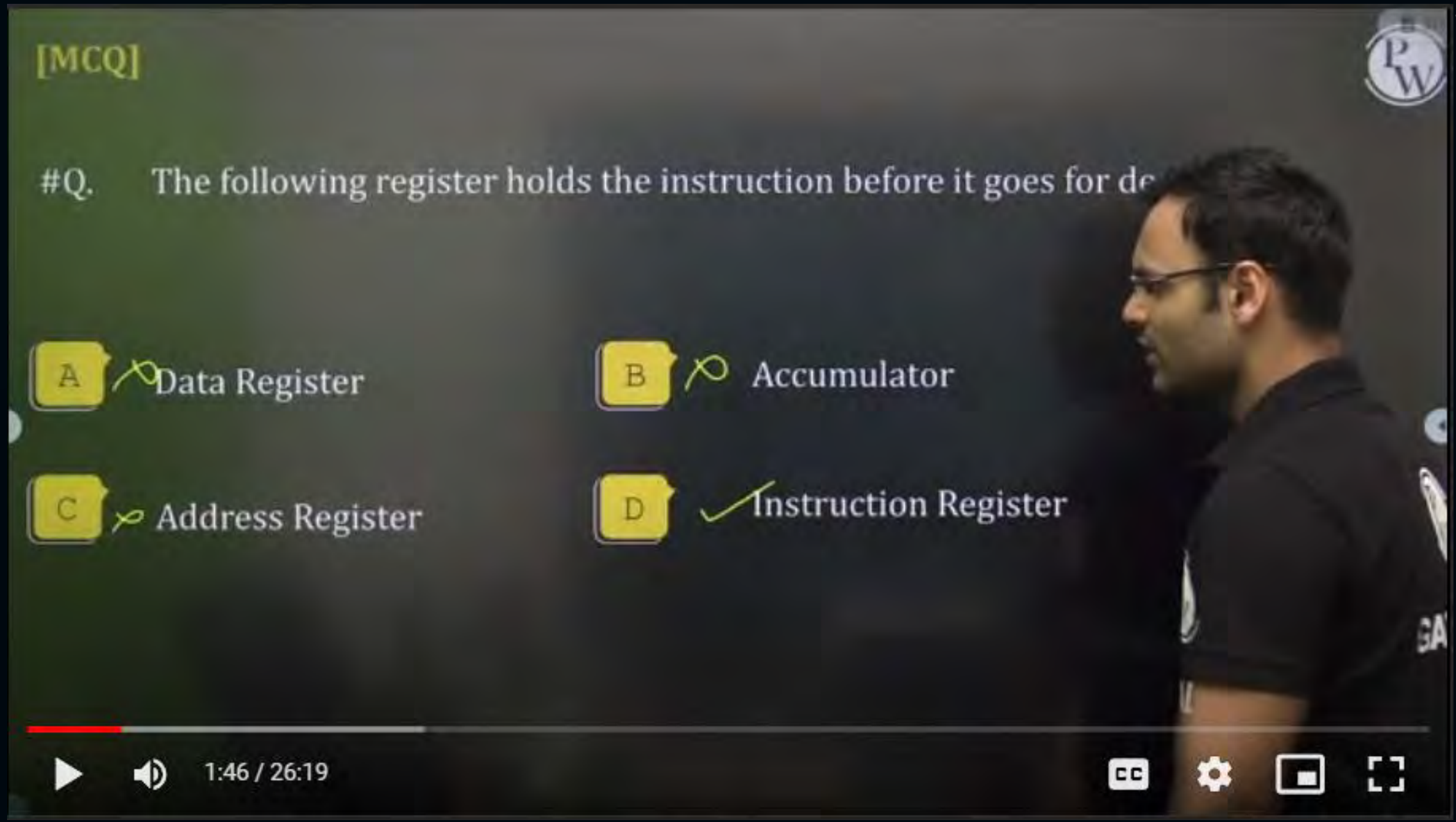
Computer Organization Architecture

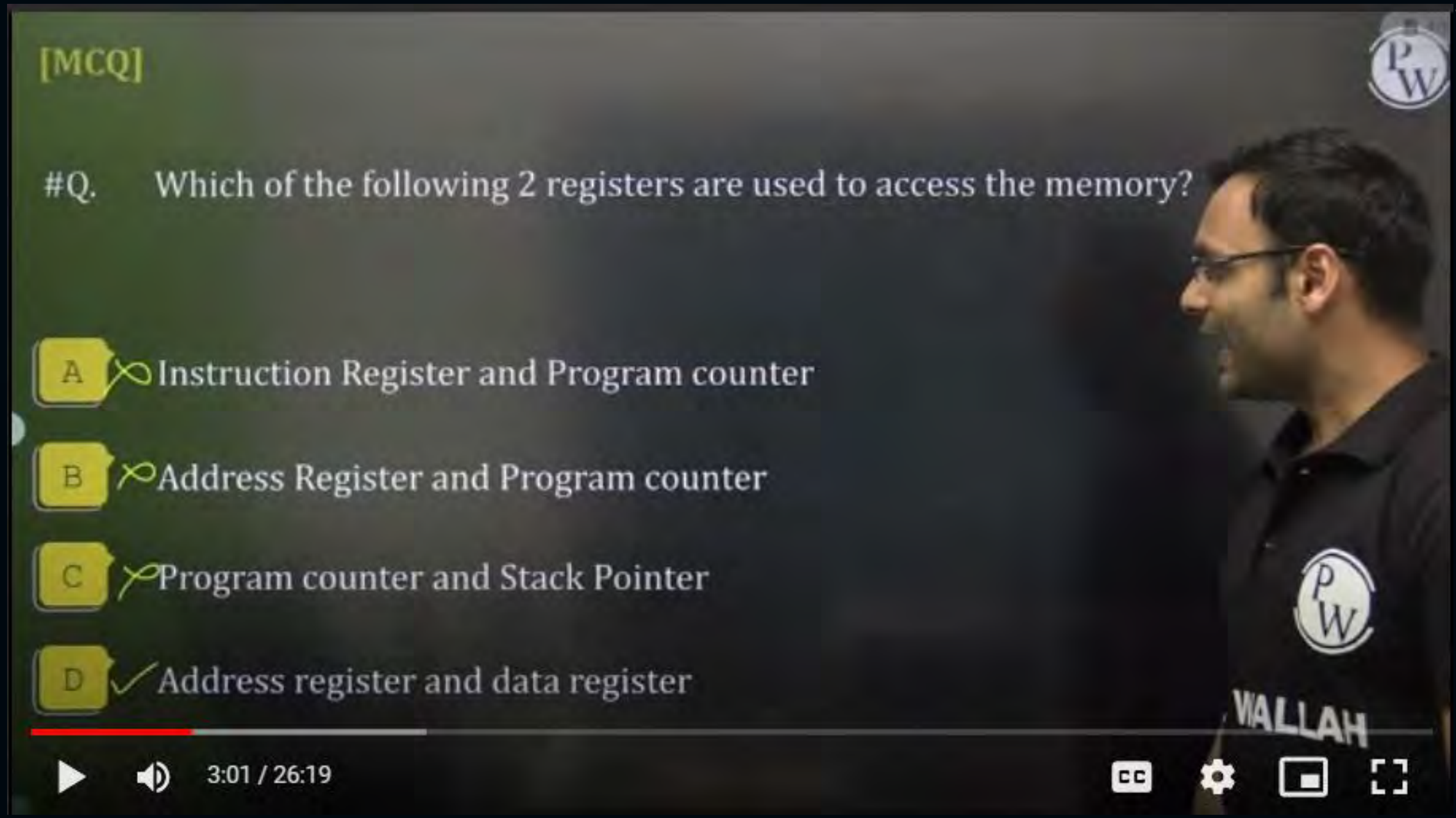
Basic Of COA

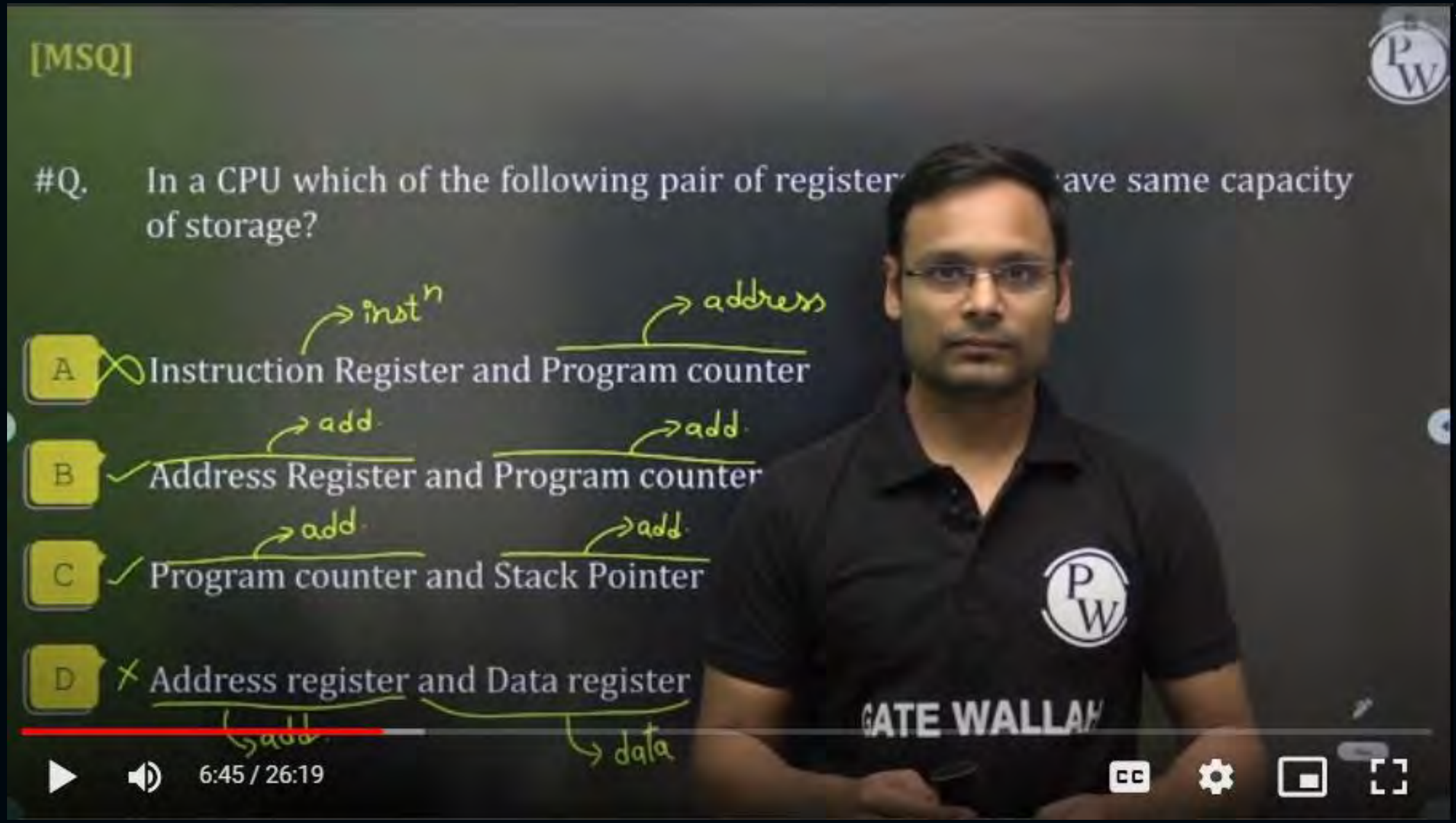
DPP- 01 Disussion notes

By- Vishvadeep Gothi sir


[MCQ]
#Q. In a microprocessor, the register which holds address of the next in
to be fetched?
A
Accumulator
B
Program Counter
C
Stack Pointer
D
Instruction Register
0:54 / 26:19


[MCQ]
#Q. The following register holds the instruction before it goes for de
A Data Register
B Accumulator
C Address Register
D Instruction Register
1:46 / 26:19


[MCQ]
#Q. Which of the following 2 registers are used to access the memory?
A Instruction Register and Program counter
B Address Register and Program counter
C Program counter and Stack Pointer
D Address register and data register
WALLAH
3:01 / 26:19


[MSQ]
#Q. In a CPU which of the following pair of register ave same capacity of storage?
A Instruction Register and Program counter
B Address Register and Program counter
C Program counter and Stack Pointer
D Address register and Data register
6:45 / 26:19

[MCQ]

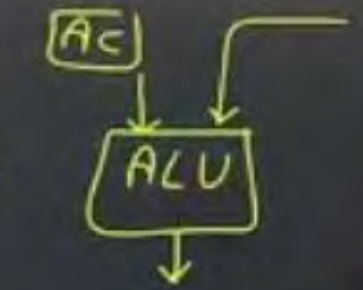
#Q. Which is not a CPU architecture?

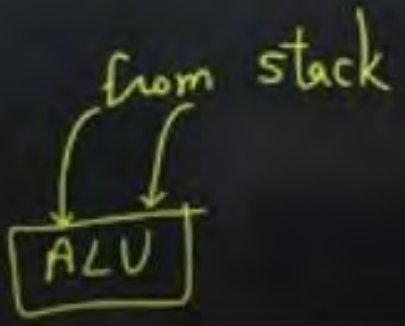
A Single Accumulator architecture

B General Register architecture

C Base Register architecture

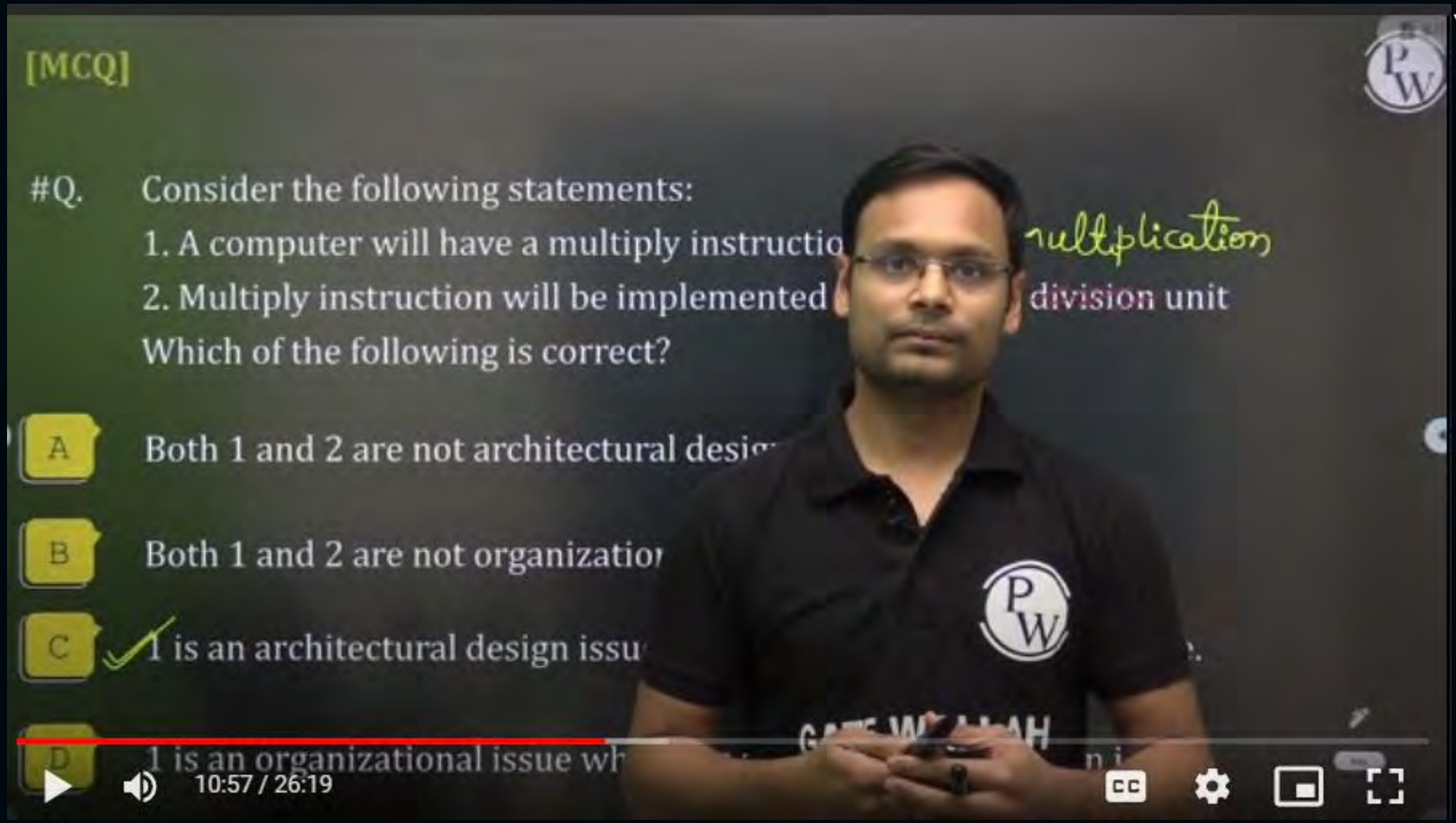
D Stack architecture





8:03 / 26:19

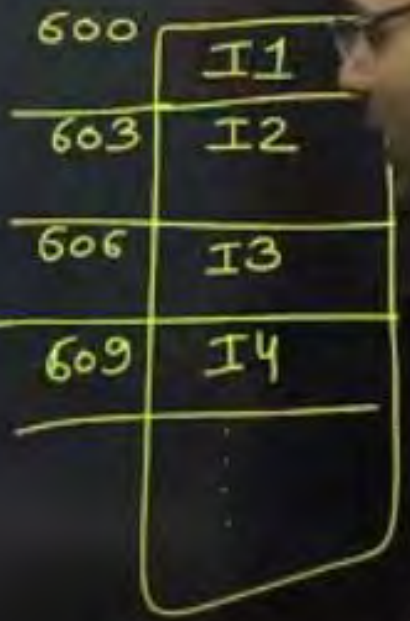

[MCQ]
#Q. Which of the following is included in the architectu iter?
1.Addressing Modes, Design of CPU
2.Instruction Set, Data Format
3.Secondary Memory, Operating System
A 1 and 2
B 2 ar
C 1 and 3
D
GATE WALLAH
9:16 / 26:19


[MCQ]
#Q. Consider the following statements:
1. A computer will have a multiply instructio
2. Multiply instruction will be implemented
Which of the following is correct?
ultiplication
division unit
A
Both 1 and 2 are not architectural desi
B
Both 1 and 2 are not organizatio
C
1 is an architectural design issu
D
1 is an organizational issue wh
10:57 / 26:19

[MCQ]

$\frac{24}{8} = 3$ bytes

#Q. A CPU has 24-bits instruction. A program starts at address 6(...mal). Which of the following is a legal program counter value?



A 700

B 800

C ~~900~~

D 950

[MCQ]

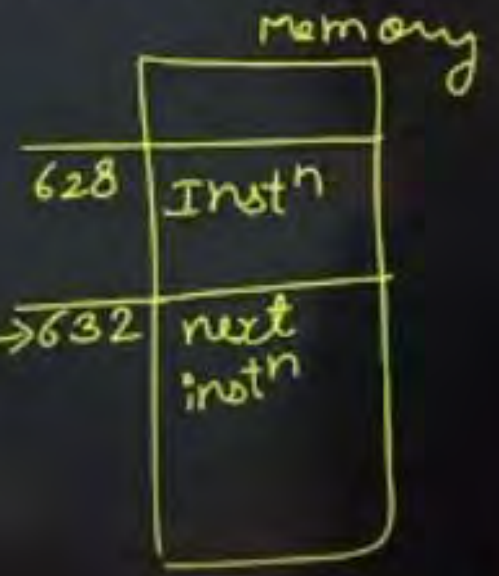
2*2 = 4 Bytes

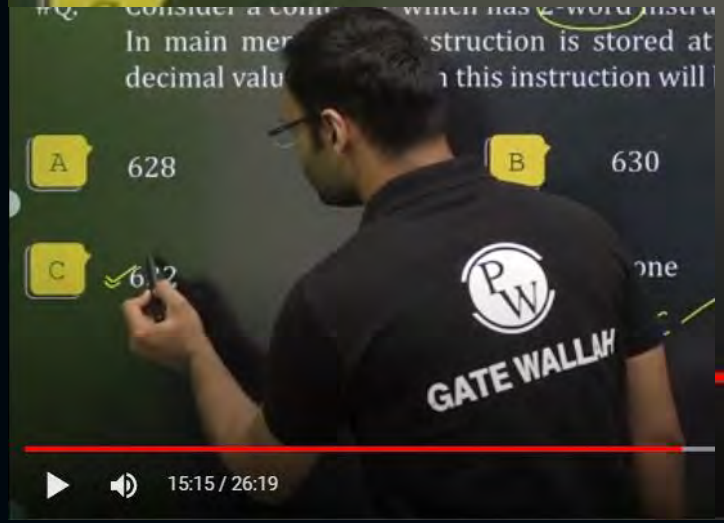
#Q. Consider a computer which has 2-word instructions. 1 word size is 2 byte
In main memory an instruction is stored at location 628 (decimal). Th
decimal value of PC when this instruction will be execution in CPU?

A 628

B 630

D None





[NAT]

#Q. Consider the following program segment. Here R1, R2 and R3 are the general-purpose register. Assume that the content of memory location 3000 is 50 and location 2000 is 25. Content of register R2 is 12. All numbers are in decimal. After the execution of this program the value of memory location 2000 is?

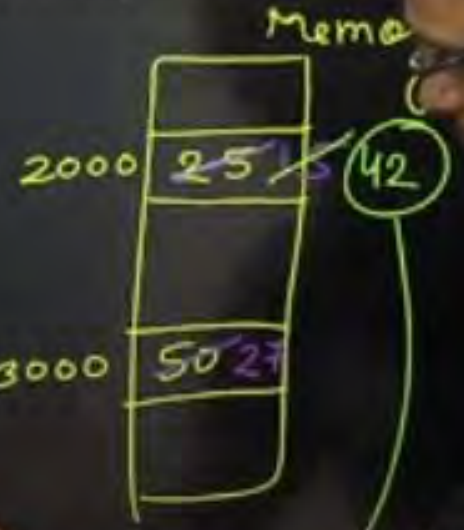
Instructions	Operations
MOV R1, #15	R1 ← #15
MOV (2000), R1	M[2000] ← R1
ADD R2, (2000)	R2 ← R2 + M[2000]
MOV(3000), R2	M[3000] ← R2
MOV R3, R1	R3 ← R1
ADD R3, (3000)	R3 ← R3 + M[3000]
MOV (2000), R3	M[2000]← R3

R1 = 15

R2 = ~~12~~ 27

R3 = ~~15~~ 42

Ans = 42



[NAT]

Ans = 115

10 + (6 * 13) = 88

88 + 27 = 115

#Q. Consider the following program segment. Here R1 and R2 are the gene purpose register. Assume that the content of memory location 3000 i and location 2000 is 13. Content of register R2 is 10. All numbers are decimal. After the execution of this program the value of R2 is?

	Instructions	Operations
	MOV R1, #7	R1 ← #7
X:	DEC R1	R1 ← R1 – 1
	JNZ Y	Jump to Y on Non-Zero
	ADD R2, (3000)	R2← R2 + M[3000]
	JMP Z	Jump to Z
Y:	ADD R2, (2000)	R2 ← R2 + M[2000]
	JMP X	Jump to X
Z:	HALT	Stop

R1 = 7 6 5 4 3 2 1 0

R2 = 10 23 36 49 62 75 88 115

26:12 / 26:19

THANK - YOU