



Do not write your name or seat no. below this line

Q. No.

Q. No.

64
3

1001000100

म. क.
Q. No.

Components

Inst

0	ADD	0000 001 010 011 000	$R1 + R2 \rightarrow R3$
1	ADD	0000 011 010 100 000	$R3 + R2 \rightarrow R4$
2	LW	0100 000 100 000 001	$M(R4+1) \rightarrow R0$
3	NDU	0010 000 111 111 000	$R0 \oplus R7 \rightarrow R6$ ← Stall
4	ADD	0000 001 010 011 000	
5	ADD	0000 111 110 101 000	$R7 + R6 \rightarrow R5$
6	ADD	0000 111 110 101 000	$R7 + R6 \rightarrow R5$
7	JAL	1000 101 000 00 1000	Branch to (7+8=15) $R(5)=8$
8	ADD	0000 001 011 011 000	NOT EX
9	LW		
15	NDU	0010 000 111 111 000	$R(0) \oplus R(7) \rightarrow R(7)$

Data Mem

Reg File

0			# 2	(# 10)
1			# 3	
2		# 2	# 4	
3		# 3		(# 7)
4		# 4	# 4	# 11
5		# 5	# 10	(# 8), 12
6			# 0000	
7			# FFFF	(# 8), 12
8				
9				
10				
11				
12		# 12 # 12 # 12 # 64		

