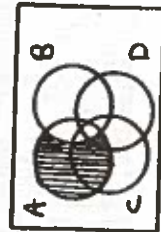


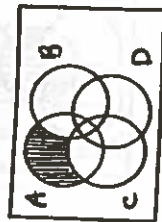
$$(3) Q = AB'(C'+D) + ABC' + C'D'$$



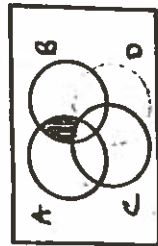
$$C' + D$$



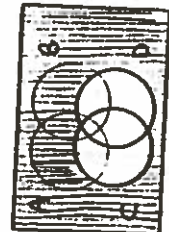
$$AB'$$



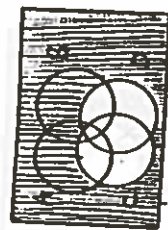
$$AB'(C' + D)$$



$$ABC'$$

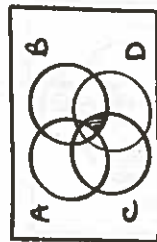


$$C'D'$$

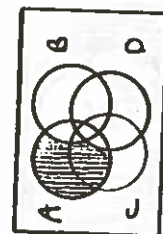


$$\emptyset$$

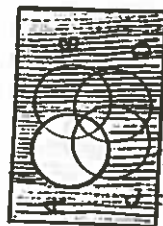
$$(4) Q = A'BC + AB'D' + A'B' + CD'$$



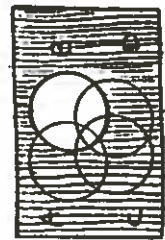
$$A'BC$$



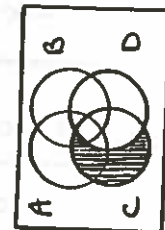
$$AB'D'$$



$$A'B'$$



$$B'$$



$$CD'$$



$$X + Y + Z'$$



$$Y' + Z$$

$$2.4 \quad (1) \text{LET } L = XY' + X'Z + Y'Z \quad R = X'Y + X'Z$$

X	Y	Z	X'	Y'	XY'	X'Z	Y'Z	L	X'	Y	R
0	0	0	1	1	0	0	0	0	0	1	0
0	0	1	1	1	0	1	0	1	0	1	0
0	1	0	1	0	0	0	0	1	1	1	0
0	1	1	1	0	0	1	0	1	1	1	0
1	0	0	0	1	1	0	0	1	0	0	0
1	0	1	0	1	1	0	0	1	0	0	0
1	1	0	0	0	0	0	1	0	0	0	0
1	1	1	0	0	0	0	0	0	0	0	0

FALSE

$$(2) \text{LET } L = (B' + C)(B' + D) \quad R = B' + CD$$

B	C	D	B'	B'+C	B'+D	L	CD	R
0	0	0	1	1	1	1	0	1
0	0	1	1	1	1	1	0	1
0	1	0	1	1	1	1	0	1
0	1	1	1	1	1	1	1	1
1	0	0	0	0	0	0	0	0
1	0	1	0	0	1	0	0	0
1	1	0	0	1	0	0	0	0
1	1	1	0	1	1	1	1	1

TRUE

$$(3) \text{LET } L = A'BC + ABC' + A'BD \quad R = BD' + ABC'$$

A	B	C	D	A'	C'	D'	A'BC	ABC'	A'BD	L	BD'	R
0	0	0	0	1	1	1	0	0	0	0	0	0
0	0	0	1	1	1	0	0	0	0	0	0	0
0	0	1	0	1	0	1	0	0	0	0	0	0
0	0	1	1	1	0	0	0	0	0	0	0	0
0	1	0	0	1	1	1	0	0	0	0	1	0
0	1	0	1	1	1	0	0	0	0	0	1	0
0	1	1	0	1	0	1	0	0	0	0	0	0
0	1	1	1	1	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0
1	0	0	1	0	1	0	0	0	0	0	0	0
1	0	1	0	0	0	1	0	0	0	0	0	0
1	0	1	1	0	0	0	0	0	0	0	0	0
1	1	0	0	0	1	1	0	0	0	0	0	0
1	1	0	1	0	1	0	0	0	0	0	0	0
1	1	1	0	0	0	1	0	0	0	0	0	0
1	1	1	1	0	0	0	0	0	0	0	0	0

FALSE