Question 1

Md: Kamruzzaman
Section: 3, ID: 526

Given stride = 1
Padding = 1
Max Polling = (2,2)

After padding, the input will be like this.
0 is used for the padding.

0	0	0	0	0	0	0
0	0	1	1	0	1	0
0	0	1	1	0	1	0
0	0	1	1	0	1	0
0	0	1	1	0	1	0
0	0	1	1	0	1	0
0	0	0	0	0	0	0

Now

1	0	1
1	1	1
0	0	1

Filter 1

0	0	1
1	0	0
0	1	1

Filter 2

Now, we will use both filter ~~with~~ in Input and ~~and~~ add them to get final feature

Here, For 1st value, Using Filter 1:-

~~0×0+~~

$\underbrace{0\times1+0\times0+1\times0}_{\text{Row 1}} + \underbrace{1\times0+1\times0+1\times1}_{\text{Row 2}} + \underbrace{0\times0+0\times0}_{\text{Row 3}}$

$+ 1\times1 = 2$

From filter 2:

$0\times0+0\times0+0\times1 + 1\times0+0\times0+0\times1 + 0\times0+0\times1$

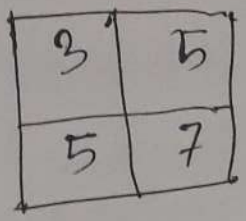
$+ 1\times1 = 1$

∴ First value will be = 2+1 = 3

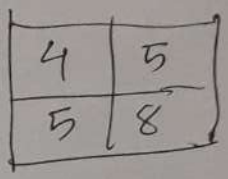
Like that we prepare this result.

3	5	4	5	2
5	7	5	8	2
5	7	5	8	2
5	7	5	8	2
3	4	4	6	1

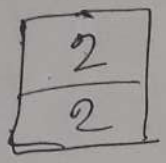
Now we will Apply Max pooling –
We know that max·pooling = (2, 2)

(i) 

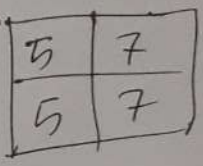
= 7

(ii) 

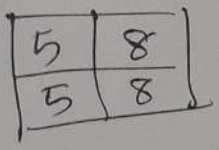
= 8

(iii) 

= 2

(iv) 

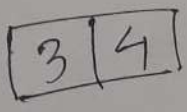
= 7

(v) 

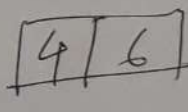
= 8

(vi) 

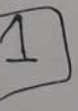
= 2

(vii) 

= 4

(viii) 

= 6

(ix) 

= 1

∴ Final Result.