A Fully connected layer has 100 neurons at input and 100 neurons at output. The number of parameters to learn is:

(Assume there is no bias.)

(A) 1000

(B) **[Ans]** 10000

(C) 200

(D) 50

(E) None of the above

A convolutional layer has 100 inputs and 100 outputs there is sufficient zero padding. The number of learnable parameters is:

(A) 10

(B) 3

(C) 5

(D) 1

(E) **[Ans]** Any of the above

A convolutional layer has 100 inputs and 5 channels of 100 outputs there with sufficient zero padding. The number of learnable parameters is: Each output channel is computed with 7 learnable weights.

Total number of learnable parameters is:

(A) 7

(B) 5

(C) 12

(D) **[Ans]** 35

(E) None of the above

A convolution layer has 3 input channels of size 100 each. Output is computed over a 1-D window of length 5. There are 7 output channels. Stride is 2.

How many learnable parameters exist in this layer?

We know that if there is no zero padding, the convolution output is smaller than the original. Consider an input of size/length 100. Convolution is carried over a window of length 7 without any stride. What is the length/size of output?