Date

Class Activity

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Question no 1:-

Layer	Output size
Input layer	128 x 128 x 3
Conv layer 1	128 x 128 x 32
Pooling layer 1	64 x 64 x 32
Conv layer 2	64 x 64 x 64
Pooling layer 2	32 x 32 x 64
Flatten layer	65536
Dense layer	128
Output layer	10

Working:-

① $\frac{\text{Input dimension} - \text{Filter size} + 2 \times \text{Padding}}{\text{Stride}} + 1$

$\frac{128 - 3 + 2 \times 0}{1} + 1 = 128$

② $\frac{\text{Input size}}{\text{Stride}} = \frac{128}{2} = 64$

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Question no 2:-

Layer	No of trainable par
Input layer	—
Conv layer 1	896
Pooling layer 1	—
Conv layer 2	18496
pooling layer 2	—
Flatten layer	—
Dense layer	8388736
output layer	1290

Working:-

① (Filter width x Filter height x Input depth x No of filters) + No of biases)

(3 x 3 x 3 x 32) + 32) = 896

64x64x32

② (3 x 3 x 32 x 64) + 64 = 18496

③ No of inputs x No of neurons) + No of biases

(65536 x 128) + 128 = 8388736

④ (128 x 10) + 10 = 1290