1. What authors explain about stride in the paper?

Ans : Stride is a way **to** **reduce** parameters **while** reducing some side **effects.** In **this** **work,** the authors **naively** assumed that the **nodes** **in** **the** next **layer** **had** **a** **lot** of **overlap** with **neighboring** **nodes** by **examining** the **area,** and **that** the overlap **could** **be** **manipulated** by controlling the **step** **size.** **rice** **field.**

1. How is zero padding effective in CNN where the authors proposed to use it?

Ans : One of the drawbacks of the convolution step is the loss of information that **may** **be** **present** **at** the **edges** of the image. **They** are only captured when the filter slides, **so** they never **get** **a** chance to be seen. To **solve** **this** **problem,** the author **suggested** **using** **zero** **padding.** **Another** **advantage** of zero padding is **that** **it** **allows** **you** to manage the output size. This padding idea helps prevent **the** **size** **of** **the** network output from shrinking with depth. **So** **you** **can** have any number of deep convolutional networks.

1. What is the convolution layer? What does it do ?

Ans : **Convolutional** **layers** **are** the most important **layers** in **CNNs.** **Most** of the time **it** **takes** **time** **in** the network. Network performance also depends on the number of **layers** **in** the network. **On** the other **hand,** **however,** **increasing** the number of **layers** **also** increases the time required to train and test the network.

1. What authors are represented by max pool layer? How have they performed max pool?

Ans : **Max** **Pool** is one of the most common types of pooling methods. The main idea of **​​pooling** is **downsampling** to reduce the complexity **of** further layers. **Splits** the image **into** **rectangles** **of** **subareas** and **returns** only the maximum value inside that **subarea.** One of the most **commonly** **used** sizes **for** **max** pooling is **2x2.** **Pooling** **on** the **top** **left** **2x2** **block** moves **by** 2 and focuses on the **top** **right** part. This means that **a** stride **of** 2 is used **when** pooling. **A** stride **of** 1 was **used** **to** **avoid** **downsampling.** **Downsampling** does not preserve the **location** of information, **so** **use** it only when the presence of information **(not** spatial information) **is** **important.**

1. What advantages CNN have over traditional Neural networks

Ans : **CNNs** **have** several advantages over traditional neural networks. The most beneficial aspect of CNNs is **the** **reduction** **in** the number of parameters in **ANNs.** This **work** has prompted both researchers and developers to approach larger models to solve complex **tasks** not possible with traditional neural networks. **A** **key** assumption about **the** problems solved by **CNNs** **is** **that** **they** should **be** **free** **of** spatially **dependent** **properties.** In other words, **facial** **recognition** **applications** **don't** need to pay attention to where the **face** **is** in the **image.** The only concern is **recognizing** them regardless of their position **within** **a** given **image.** Another important aspect of **CNNs** is **preserving** abstract features **as** **the** input propagates **towards** deeper layers.