**ANS: 1**

Facebook uses machine learning in every aspect. It would not even be possible to handle 2.4 billion users while providing them the best service without using Machine Learning.Either you are scrolling a facebook, you have been apart of seeing machine learning. It is mind blowing how facebook can guess the people you might be familiar with in real life using “People You May Know”. And they are right most of the time. Well, this magical effect is achieved by using Machine Learning algorithms that analyze your profile, your interests, your current friends and also their friends and various other factors to calculate the people you might potentially know. Another aspects where facebook uses machine learning are facial recognition system, targeted advertising on your page. Facebook can also tell about a person is happy or sad, standing or sitting or even any other type of activities can easily be distinguished with the help of ML. Theoretically this type of learning called as Supervised learning in which Facebook would learn from past experience and giving suggestion of tagging. So it is obvious that Facebook uses Machine Learning in the working of all its aspects with plans on enhancing it even further.

**ANS: 2**

What is DL?Deep learning is like a brain that takes some sort of input and then does some intelligent processing and produces an output. Deep learning carries out the machine learning process using an artificial neural net that is composed of a number of levels arranged in a hierarchy. The network learns something simple at the initial level in the hierarchy and then sends this information to the next level. The next level takes this simple information, combines it into something that is a bit more complex, and passes it on the third level. This process continues as each level in the hierarchy builds something more complex from the input it received from the previous level.

Cat example, the initial level of a deep learning network might use differences in the light and dark areas of an image to learn where edges or lines are in a picture of a cat. The initial level passes this information about edges to the second level which combines the edges into simple shapes like a diagonal line or a right angle. The third level combines the simple shapes into more complex objects like ovals or rectangles. The next level might combine the ovals and rectangles into rudimentary whiskers, paws and tails. The process continues until it reaches the top level in the hierarchy where the network has learned to identify cats. While it was learning about cats, the network also learned to identify all of the other animals it saw along with the cats.

Deep learning is used in real world application and it can change the world by designing new innovations. The ability to learn from unlabeled or unstructured data is an enormous benefit for those interested in real-world applications. This is the era of deep learning. Nowadays deep neural networks are better than humans at seeing and understanding pictures in some limited domains.Deep neural network can now see and understand the world the first time in human history the computers could really see that is wonder. Deep neural networks are also better than doctors in many cases and looking at medical imagery and figuring out of it there is a tumor or broken bone in there.In conclusion I can say that deep learning is exponentially increasing and would change the world.

**ANS: 3**

What is AI? In computer science, artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans. The ability to perform tasks with intelligence is known as AI.

My dream AI project is that when I think of something, it will occur automatically. For e.g **1)Think\_to\_Text**: By thinking (“Ok I'll be there on time, for example), I can start thinking and my phone converts the thoughts into text by the help of AI. **2)On Off the light:**Whenever I think to turn on the light so the light will get on. This is something like that could be a part of AI neural network. It can have a commercial value approximately 40000 because it is very difficult to design the program.