***Introduction to Computer Application***

***Artificial Intelligence***

**What is Intelligence?**

Intelligence is defined as general cognitive problem-solving skills. A mental ability involved in reasoning, perceiving relationships and analogies, calculating, learning quickly… etc

**What is Artificial Intelligence?**

In computer science, artificial intelligence, sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and animals

OR

The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

OR

Artificial intelligence (AI) is the ability of a computer program or a machine to think and learn. It is also a field of study which tries to make computers "smart". They work on their own without being encoded with commands.

**Artificial Intelligence** is **Used** is Following Things/Fields:

Retail, Shopping and Fashion. Security and Surveillance. Sports Analytics and Activities. Manufacturing and Production.

**Goals of AI**

To Create Expert Systems − The systems which exhibit intelligent behavior, learn, demonstrate, explain, and advice its users. To Implement Human Intelligence in Machines − Creating systems that understand, think, learn, and behave like humans.

The **future of Artificial Intelligence** involves advanced cognitive systems capable of doing what machine learning systems can't. They will intelligently and fluently interact with human experts, providing them with articulate explanations and answers, even at the edge of the network or in robotic devices.

**Major Applications of Artificial Intelligence**

Artificial finds its application in a lot of areas not only related to computer sciences but many other fields as well. We will briefly mention a few of the application areas and throughout the content of this booklet you will find various applications of the field in detail later.

1. Many information retrieval systems like Google search engine uses artificially intelligent crawlers and content based searching techniques to efficiency and accuracy of the information retrieval.
2. A lot of computer based games like chess, 3D combat games even many arcade games use intelligent software to make the user feel as if the machine on which that game is running is intelligent.
3. Computer Vision is a new area where people are trying to develop the sense of visionary perception into a machine. Computer vision applications help to establish tasks which previously required human vision capabilities e.g. recognizing human faces, understanding images and to interpret them, analyzing medical scan and innumerable amount of other tasks.
4. Natural language processing is another area which tries to make machines speak and interact with humans just like humans themselves. This requires a lot from the field of Artificial Intelligence.
5. Expert systems form probably the largest industrial applications of AI. Software like MYCIN and XCON/R1 has been successfully employed in medical and manufacturing industries respectively. Robotics again forms a branch linked with the applications of AI where people are trying to develop robots which can be rather called as humanoids.
6. Organizations have developed robots that act as pets, visitor guides etc.

In short there are vast applications of the field and a lot of research work is going on around the globe in the sub-branches of the field. Like mentioned previously, during the course of the booklet you will find details of many application of AI.

Assignment:

**THINK WHERE CAN YOU USE ARTIFICIAL INTELLIGENCE IN YOUR DOMAIN (ZOOLOGY)? WRITE A PARAGRAPH?**