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Notes for B.Sc part 1<sup>st</sup>, paper  
2(A).

Question:- Write Notes on the scope  
of ETHOLOGY?

Answer:- Ethology :-

Ethology is the scientific and objective study of animal behaviour, usually with a focus on behaviour under natural conditions and viewing behaviour as an evolutionary adaptive trait. Behaviourism as a term also describes the scientific and objective study of animal behaviour, usually referring to measured responses to stimuli or to trained behavioural responses in a laboratory context, without a particular emphasis on evolutionary adaptivity. Throughout history, different naturalists have studied aspects of animal behaviour. Ethology has its scientific roots in the work of Charles Darwin (1809 - 1882) and of

American and German ethologists of the late 19<sup>th</sup> and early 20<sup>th</sup> century, (citation needed) including Charles O.

## ETHOLOGY

### I Development of Animal Behavior

#### 1. Ontogeny of Behavior

Behavioural development is the result of the continuous interaction of genetic and environmental factors. The genetic code is fixed, but an animal will not develop appropriately without the right cues from the environment. Some behaviours are innate, such as suckling, standing, running, pecking etc. In animal embryos there are two inborn behavioural patterns and accordingly they are classified as precocial and altricial embryos.

A. Neonatal roots of behavior or types of embryos and their behavior:-

Precocial embryo:-

In various mammals like horse, buffalo,

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deer, elephant, hamster etc the embryos behave like a miniature of their parents. Their movements resemble parent as soon as they born. They start walking feeding to some extent protect themselves from enemies etc. e.g. Goat.

### Altricial embryo :-

In others the embryos do not resemble their parents called as altricial embryo. These embryos have to modify after birth to resemble their parents. Altricial embryos are dependent on their parent for feeding and protection. In some case they have to be intensively cared. e.g. kangaroo.

### History :-

#### The beginnings of ethology

Charles Darwin (1809-1882) explains the expression of emotions in animals.

Because ethology is considered a topic of biology, ethologists have been concerned particularly

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with the evolution of behaviour and its understanding in terms of natural selection. In one sense, the first modern ethologist was Charles Darwin. In one sense, the first modern ethologist was Charles Darwin, whose 1872 book The Expression of the Emotions in Man and Animals influenced many ethologists. He pursued his interest in behaviour by encouraging his protégé George Romanes, who investigated his animal learning and intelligence using an anthropomorphic method, anecdotal cognitivism, that did not gain scientific support.

### Social ethology and recent developments :-

In 1972, the English ethologist John H. Crook distinguished comparative ethology from social ethology, and argued that much of the ethology that had existed so far was really comparative ethology examining animals as individuals whereas, in the future, ethologists would need to an