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Question :- Write notes on Parental care of Amphibia?

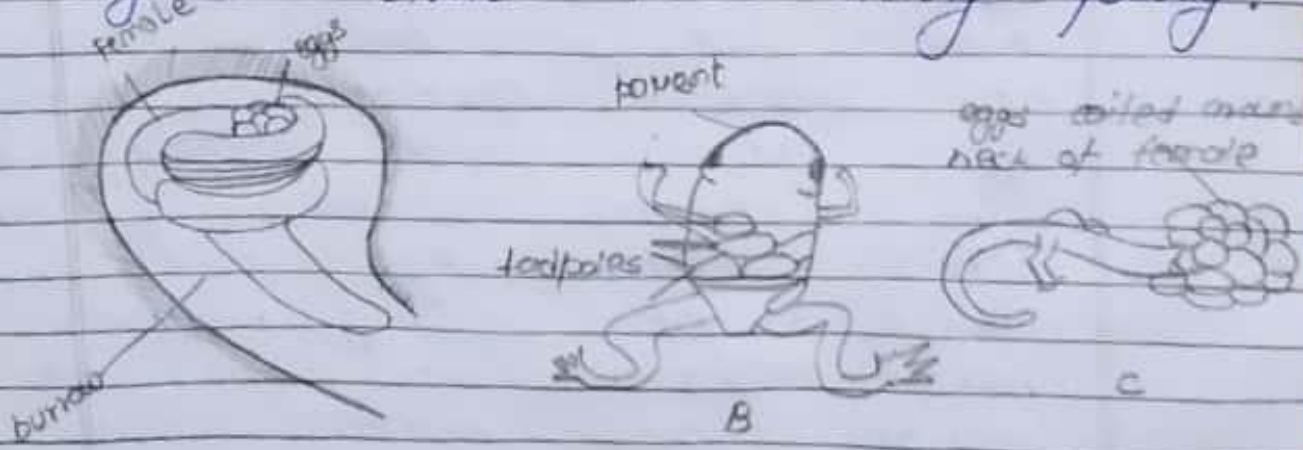
Answer :- Parental care :-

Parental care is a behavioural and evolutionary strategy adopted by some animals, involving a parental investment being made to the evolutionary fitness of offspring. Patterns of parental care are widespread and highly diverse across the animal kingdom. There is great variation in different animal groups in terms of how parents care for offspring, and the amount of resources invested by parents. For example, there may be considerable variation in the amount of care invested by each sex, where female may invest more in some species, males invest more in

others, or investment may be shared equally. Numerous hypotheses have been proposed to describe this variation and patterns in parental care that exist between the sexes, as well as among species.

Egg in back pouches :- In marsupial frogs or toads, the female carries the eggs on her back, either in an open oval depression, a closed pouch or in individual pockets.

Viviparity :- Some animals are ovoviviparous. They retain egg in the oviducts and the females gives birth to living young.



## Parental care in Amphibians

Types of parental care :-

### Maternal care :-

In mammalian species, female parents possess adaptations that may predispose them to care more for offspring. These adaptations include gestation and the production of milk. In invertebrates, maternal care is known to be a prerequisite for the evolution of permanent family grouping and eusociality in spiders. Permanent sociality is dependent on extended maternal care following hatching. Females of some species of reptiles may remain with their clutch to provide care, by curling around their eggs for the duration of the incubation period. The most intricate example of maternal care in this group can be seen in crocodilian species, as mother's may stay with their young for multiple months.

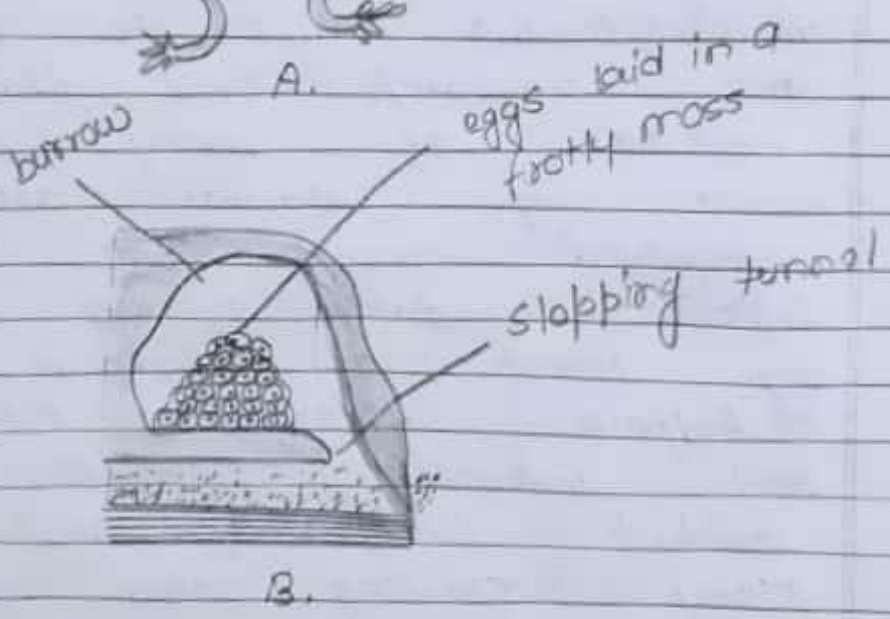
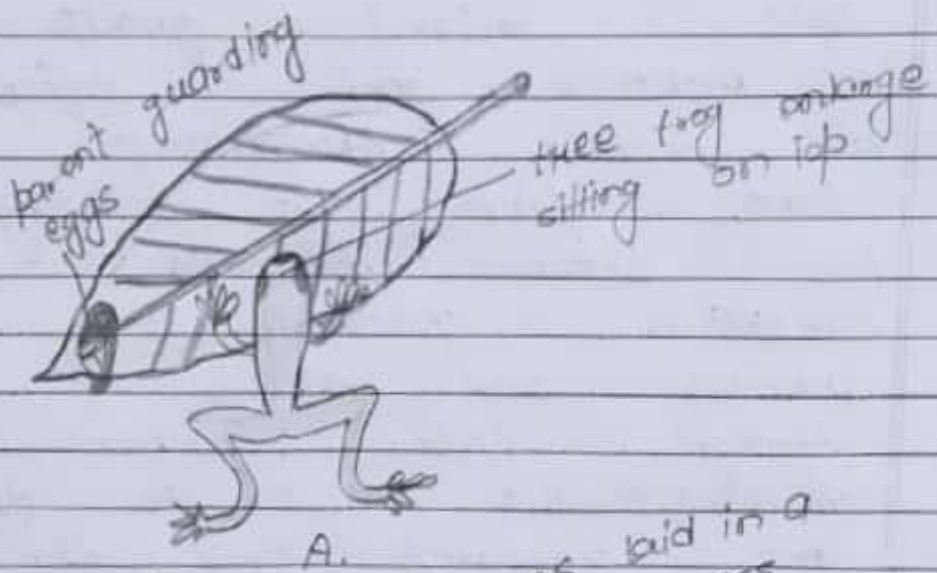
In groups of animals :-

In amphibians :-

There is an equal prevalence of female-only and male-only care in amphibians. However, biparental care is uncommon. Provisioning in this animal group tends to be more, and offspring guarding is more prevalent. Parental care after the laying of eggs has been observed in 5% of cocoon species, 18% of salamander species and 6% of frog species, though this number is likely an underestimate due to taxonomic bias in research and the cryptic nature of many species. Six modes of parental care are recognized among the Amphibia, in different species: egg attendance, egg transport, tadpole attendance, tadpole transport, tadpole feeding, and internal gestation in the oviduct (viviparity and ovoviviparity). Many species also care for offspring (either eggs or tadpoles) in specially adapted structures of their body. For example, the male pouched frog

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of eastern Australia protects tadpoles in pouches on the lateral surface of their skin, the gastric-brooding frog raises tadpoles (and potentially eggs) in their stomach and the common Surinam toad raises eggs embedded in the skin on its back.



Parental care in Amphibia. Protection by nests, nurseries or shelters.