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Notes for B.Sc part 2nd  
paper I V (A).

Question :- Write Notes on a type  
of PLACENTA.

Answer :- Summary of species Differen-  
-ces in Placental Architecture:-

Type of Placenta	Common Example
Diffuse, epitheliochorial	Horses and pigs
cotyledonary, epitheliochorial	Ruminants (cattle, sheep, goats, deer)
zonary, endotheliochorial	Carnivores (dog, cat, ferret)
Discoid, hemochorial	Humans, apes, monkeys and rodents

### PLACENTA IN MAMMALS :-

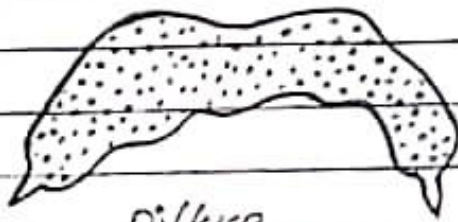
Structure, Types and Functions

Date  
6 June, 2020

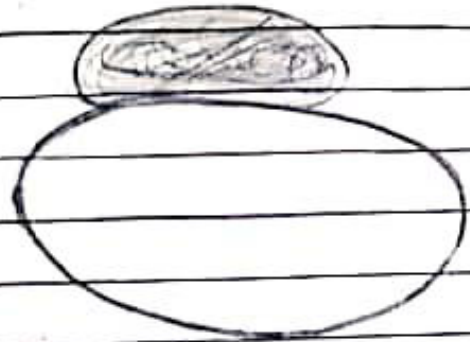
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Final

In Eutherian mammals the embryo develops in the uterus of mother. The developing embryo will get nourishment from mother through the placenta.



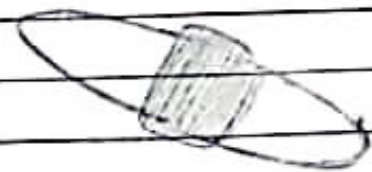
Diffuse



Discoid



Cotyledonary



Zonary

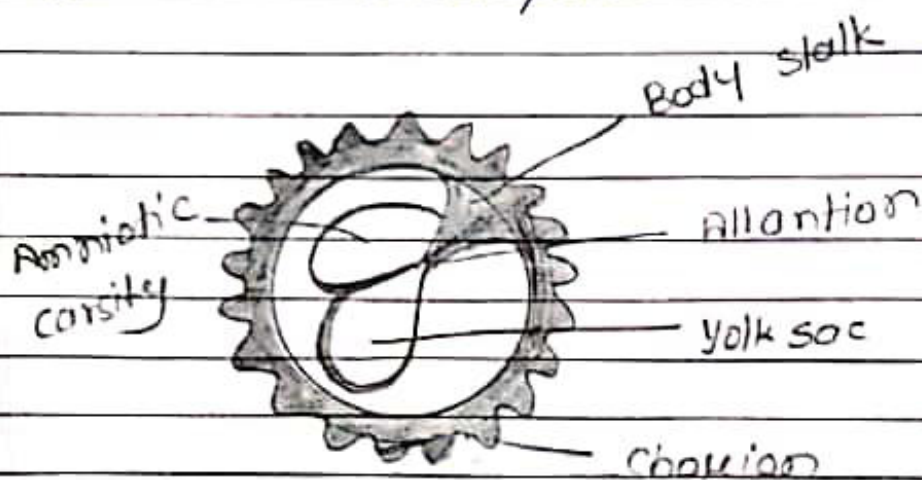
Placenta is not common to all mammals. It is developed well in Eutheria. The term placenta was derived from Greek word it means 'flat cake'. Placenta is a special connective tissue, which contains the uterus of mother and foetal membranes of foetus.

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In marsupials the embryo develops incompletely in the uterus. They show yolk sac placenta and primitive allantoic: Yolk sac placenta:

Ex :- Diadelphias.



● Cotyledonary placenta :- Ex: sheep, cow, deer. The villi are arranged in groups: each group is called cotyledon. Each cotyledon fits into a cuneate to uterus.

● Intermediate type placenta :- Ex: camel, giraffe. It is a mixed type, it shows free villi on cotyledons. Hence it is called intermediate type placenta.

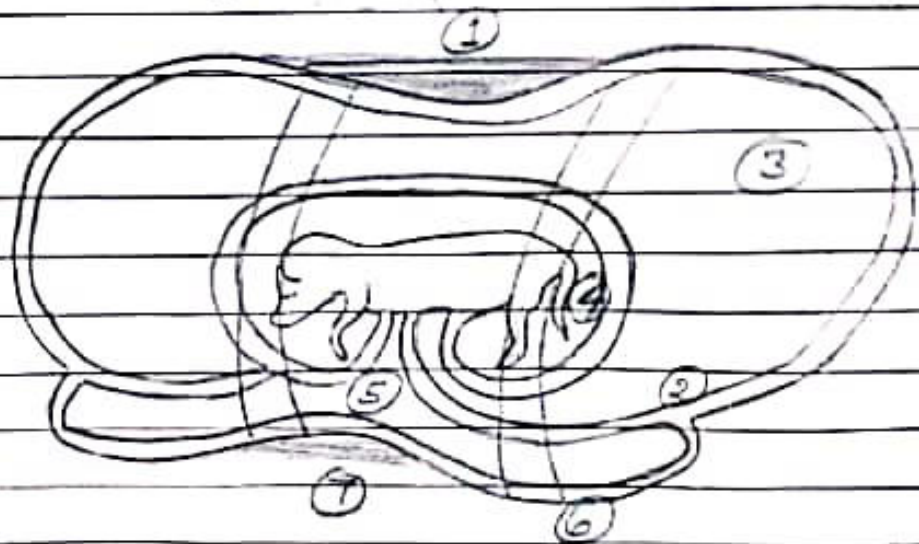
In these three types of placenta during parturition the foetus will not damage uterus.

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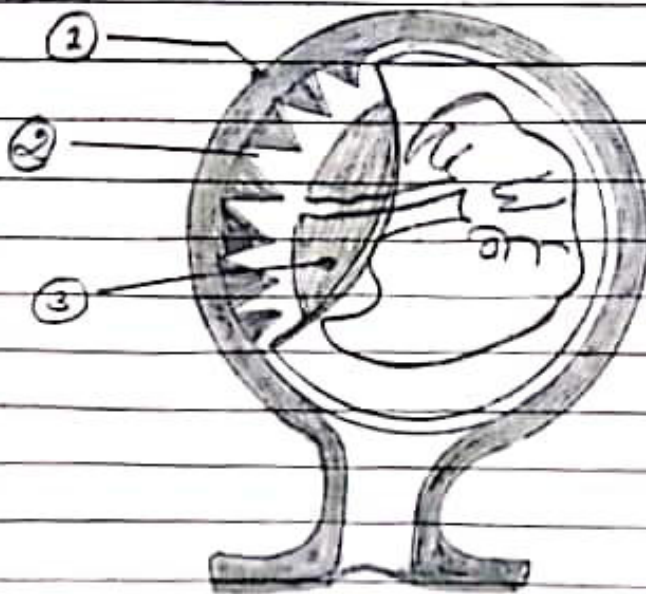
- Zonary placenta :- ex: cat, dog, canines. The villi are in the form of transverse zones. In dog a single girdle of vbt will be present. In fox two girdles of villi are present. The villi penetrate into uterine wall. Hence during parturition uterine wall is damaged.



### Foetal Attachments in the Bit

- ① Chorion frondosum
- ② Chorion laeve
- ③ Allantois
- ④ Amnion
- ⑤ Vitelline sac
- ⑥ Rim of Placenta
- ⑦ Endotheliochorial type zonary placenta

- Discoidal Placenta :- Ex: Rat, Bat, Rabbit, on the entire surface of blastocyst the villi are in the form of discs. When the embryo is growing it move away from uterus hence the villi look like a disc. These villi are intimately connected with uterus. Hence during parturition much uterine tissue is damaged.



According to number of layers of cells present between fetus and uterus blood supply the placenta is classified into five types.