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MATRIC no: 17/MHS01/231

DEPT : ANATOMY

COURSE TITLE : ANIMAL HANDLING (ANA314)

1. What is comparative anatomy?

 Comparative anatomy is the study of similarities and differences in the anatomy of different species

1. Highlight the criteria’s necessary for caring for laboratory animals
* Access to species appropriate food and water
* Access to species-specific housing, including appropriate temperature and humidity.
* Access to humane care and a program of veterinary care.

• Animal housing that minimizes the development of abnormal behaviors.

• Adherence to principles of replacement, refinement, and reduction in the de-sign of in vivo or ex vivo studies.

• Review of study design and purpose by institutional ethical review panel.

• Commitment to minimizing pain and distress to the animal during in vivo and ex vivo studies.

• Work performed by staff trained to conduct the procedures for which they are responsible.

• Documented and verified training.

• Processes in place to minimize animal use.

1. Highlight the similarities and differences between the digestive system of amphibians and man

 **Similarities**

* They both contain the following digestive organs; mouth,oesophagus,pharynx, stomach,small intestine and large intestine.
* Both the stomach of man and amphibians store food and mixes it with enzymes to begin digestion.
* The teeth of both animals are used for the mastication of food.
* They both have rectum

Differences

|  |  |
| --- | --- |
| Mammals(Man) | Amphibian (frog) |
| That of man is not sticky therefore can not be used for catching prey. | The tongue of frog is sticky, used for catching prey  |
| In man it doesn’t | In amphibians the large intestine terminates in the cloaca |
| Humans have strong teeth. They use their teeth to chew food | Frogs do not have strong teeth. They use their teeth to hold |
| The tongue of the human is attached to the back of the mouth | The tongue of the frog is attached to the starting point of the mouth |
| Humans have a long small intestine. It has three parts: duodenum, jejunum, and ileum | Frogs have a shorter small intestine. The two parts of the small intestine of the frog are duodenum and ileum |
| The elimination of undigested materials occur through rectum | The elimination of undigested materials occur through cloaca |
| Humans have appendix | Frog does not have appendix |