**SENIOR OLYMPIAD THEORY BIOLOGY**

**QUESTION ONE**

1. The pancreas has a dual function in producing digestive enzymes as well as hormones.
   1. Which other two endocrine glands have dual function and what are their functions? (6 marks)
   2. What are the effects on body functions of:-
2. too much insulin (2 marks)
   1. too little insulin (2 marks)
3. (a) Which receptors and effectors are involved in the reflex actions of:-
4. sneezing (2 marks)
   1. blinking (2 marks)
   2. contracting of the iris? (2 marks)

(b) Give some examples of behaviour patterns in the domesticated dog which you would consider to be:-

(i) innate (2 marks)

(ii) learnt (2 marks)

1. (a) With the help of a well drawn and labeled diagram on the central nervous system account for the functions of the:-
2. Mid brain
3. Hind brain
4. Cerebrum (10 marks)
5. (a) By tabulation make comparisons between the lens camera and the human eye. (6 marks)

(b) Show clearly, by diagrams and descriptions long sightedness and how it can be rectified. (4 marks)

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