

# Example of essay on anatomy

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### 1. Question 1

Several procedures have been developed to counteract problems of non union bones and bones with delayed healing. Treatments could either be surgical or non-surgical in nature. Both methods have its advantages and disadvantages however; non-surgical treatments are usually done as much as possible. Non-surgical treatments include the use of a small device called bone simulator which delivers ultramagnetic waves when placed over the fractured part to simulate healing.

There are currently several alternatives to choose from if surgical treatment is preferred. A bone graft can be used where new bone cells are provided. This is done by making a surgical incision and removes bone pieces in other parts of the patient and then transplanted to the affected part. Internal Fixation can also be used. This method requires the attachment of metal plates and and screws outside the bone or inside the bone canal to stabilize the nonunion. External Fixation on the other hand, requires the attachment of scaffolding outside the injured part to stabilize the bone. (American Academy of Orthopaedic Surgeons, 2012)

### 2. Question 2

Myoglobin is an iron containing protein found in the muscles which binds one molecule oxygen and is does not efficiently transfer oxygen it only transfer oxygen on extreme cases which comes in handy when the body starves for oxygen. It functions like an oxygen reserve in the muscles and contributes to the oxygen supply of tissues.

Its distribution in the body depends on the muscles functions. For example, in turkeys, the legs are more active compared to their breasts. This means

that the legs require more oxygen compare to the breast, thus the amount of myoglobin in the legs is more than that of the breast. This also explains why leg meat is red and the breast meat is white because of the amount of myoglobin present in these muscles. (Frederick, 2010)

### 3. Question 3

The thalamus as the gatekeeper of the cerebrum acts as the translator of the cerebrum cortex. It is responsible for regulating the sleepiness and wakefulness of a person. If the thalamus does not function properly, then no one will be regulating the consciousness of the person which can lead to permanent coma. (Jones, 2007)

### 4. Question 4

Malfunctions directly or indirectly associated with the temporomandibular joint (TMJ) like douloureux is usually caused by an abnormal blood vessel that pressure the trigeminal nerve. Sometimes, tumor in the brain or nerve is the cause of this irritation. This malfunction is common among the older people. The most common medication to a patient suffering from this is the administration of an anticonvulsant called Carbamazepine which decreases the impulse of the trigeminal nerve that causes the pain. If this is not effective, other drugs are available. If after administering medications and the patient still suffers from the disorder, a certain part of the trigeminal nerve can be temporarily inactivated. This process called rhizolysis. Stereotactic radiosurgery can also be done where parts of the trigeminal nerve are inactivated through the use of gamman knife. (Dizon, 2005)

## **Works Cited**

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