**ASSIGNMENT ON GROSS ANATOMY OF THE HEAD AND NECK**

**ASSIGNMENT TITLE: NOSE AND ORAL CAVITY**

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**MATRIC NO: 17/MHS01/160**

**DEPARTMENT: MEDICINE/SURGERY**

**COURSE CODE: ANA 301**

**LEVEL: 300**

**QUESTIONS:**

**1.) Discuss the Anatomy of the Tongue and comment on its applied anatomy.**

**2.) Write an essay on the air sinuses.**

**Answers**

The Tongue is a mass of muscle that is almost completely covered by a mucous membrane. It occupies most of the oral cavity and oropharynx. It is known for its role in taste, but also assists with mastication (chewing), deglutition (swallowing), articulation (speech) and oral cleansing. Five cranial nerves innervate this multifunctional organ. The tongue plays an important role in digestion. The Tongue’s upper surface (dorsum) is covered by taste buds housed in numerous lingual papillae. It is sensitive and kept moist by saliva and is richly supplied by nerves and blood vessels. The human tongue is divided into **two (2) parts by the terminal sulcus**; an **Oral Part** at the front and a **Pharyngeal Part** at the back. The left and right sides are also separated along most of its length by a vertical section of fibrous tissue (the lingual septum) that results in a groove, the median sulcus, on the tongue’s surface.

**STRUCTURE:**

From anterior to posterior, the tongue has **three (3) surfaces; tip, body and base.** The tip is the highly mobile, pointed anterior portion of the tongue. Posterior to the tip, lies the body of the tongue, which has dorsal (superior) and ventral (inferior) surfaces. The median sulcus of the tongue separates the body into left and right halves. The terminal sulcus or groove, is a v-shaped furrow that separate the body from the tongue. At the tip of the of this sulcus is a foramen cecum , a remnant, a remnant of the proximal thyroglossal duct. The base of tongue contains the lingual tonsils, the inferior-most portions of Waldeyer’s ring. The surface of the body of the tongue derives its characteristic appearance from the presence of lingual papillae, which are projections of lamina propria covered with epithelium. There are **four (4)** types of lingual papillae are as follows;

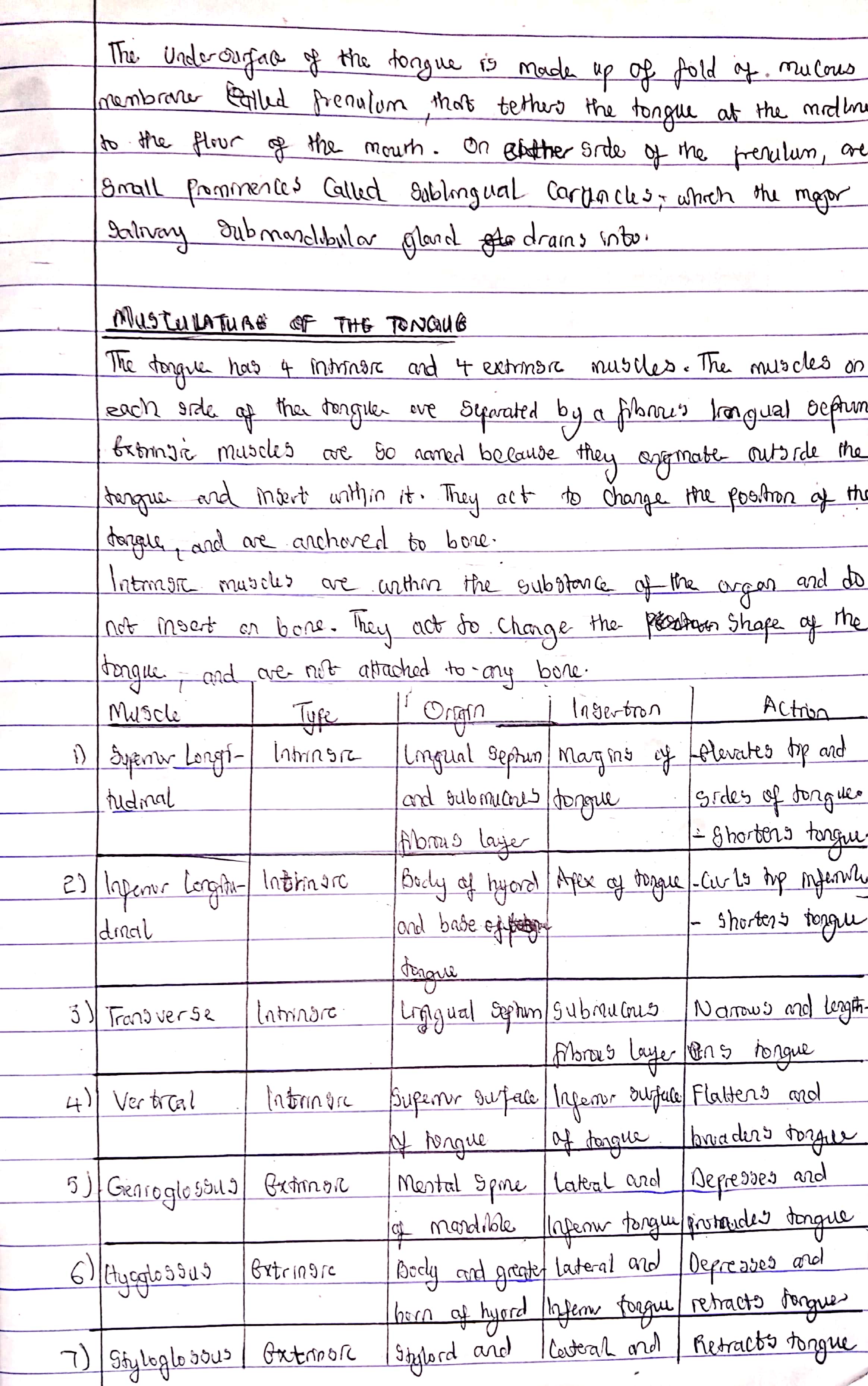
i.) **The Vallate Papillae:** are flat, prominent papillae that are surrounded by troughs. In humans, there are 8-12 vallate papillae, located directly anterior to the terminal sulcus. The ducts of the lingual glands secrete lingual lipase into the surrounding troughs for lipolysis to occur.

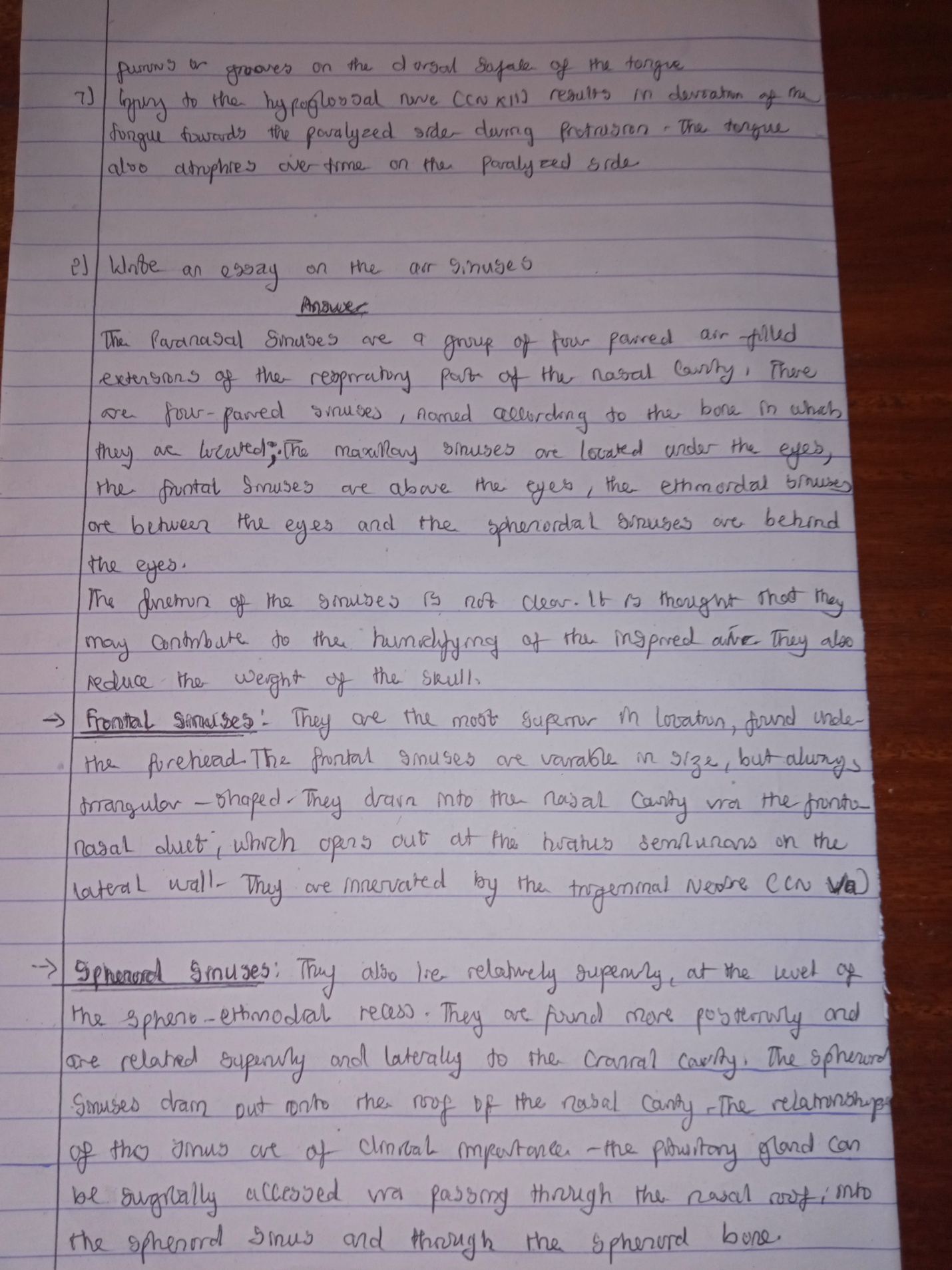
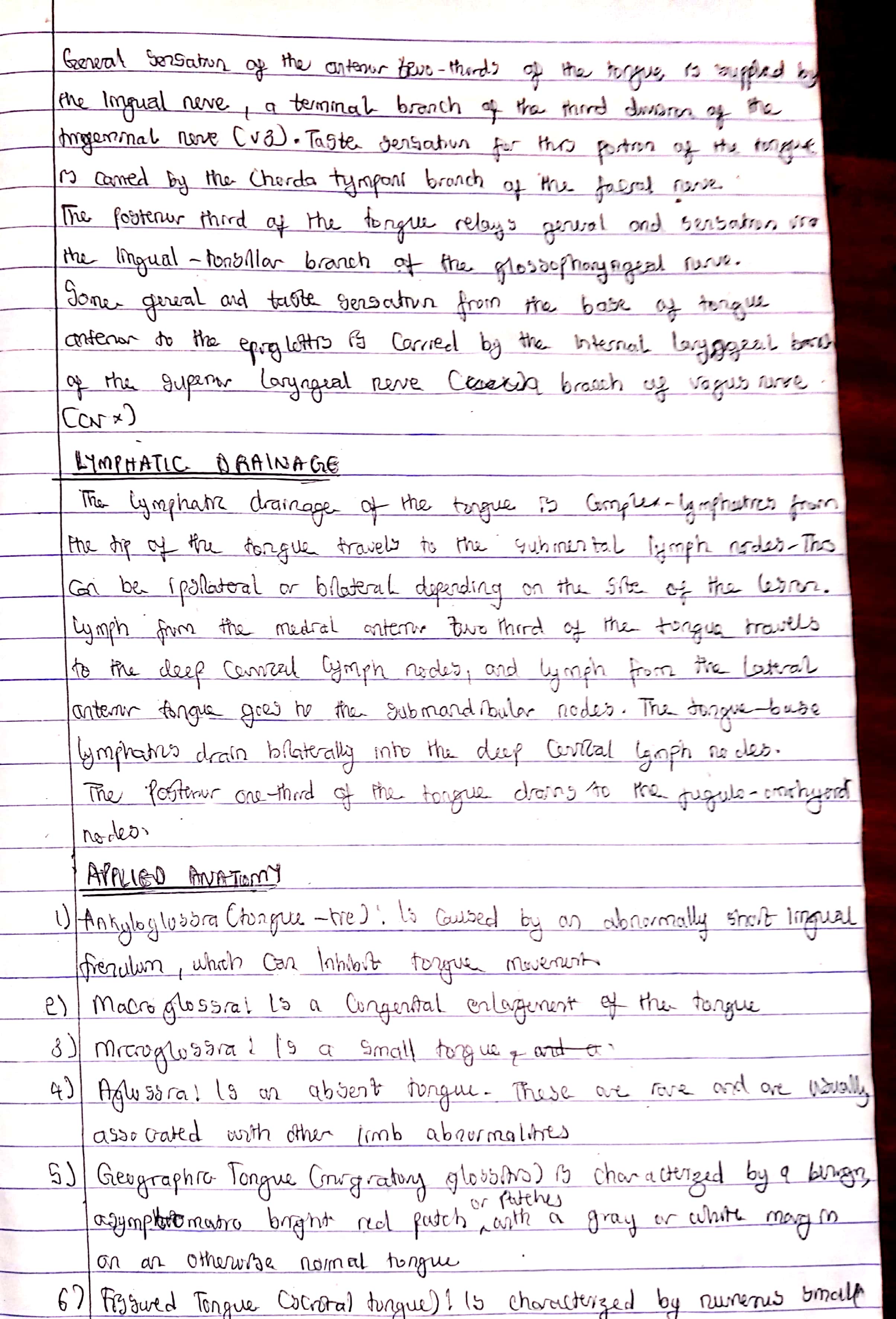
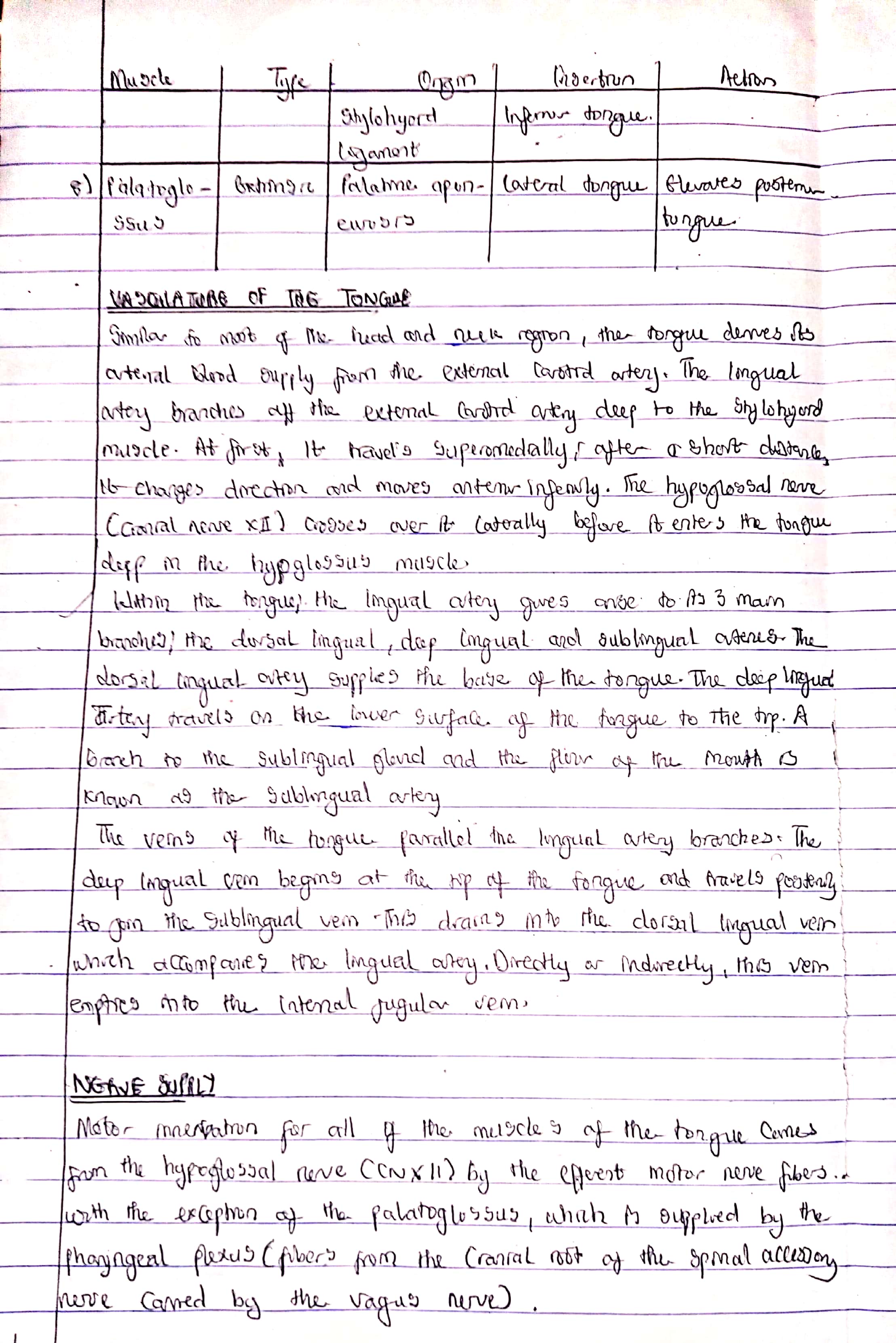
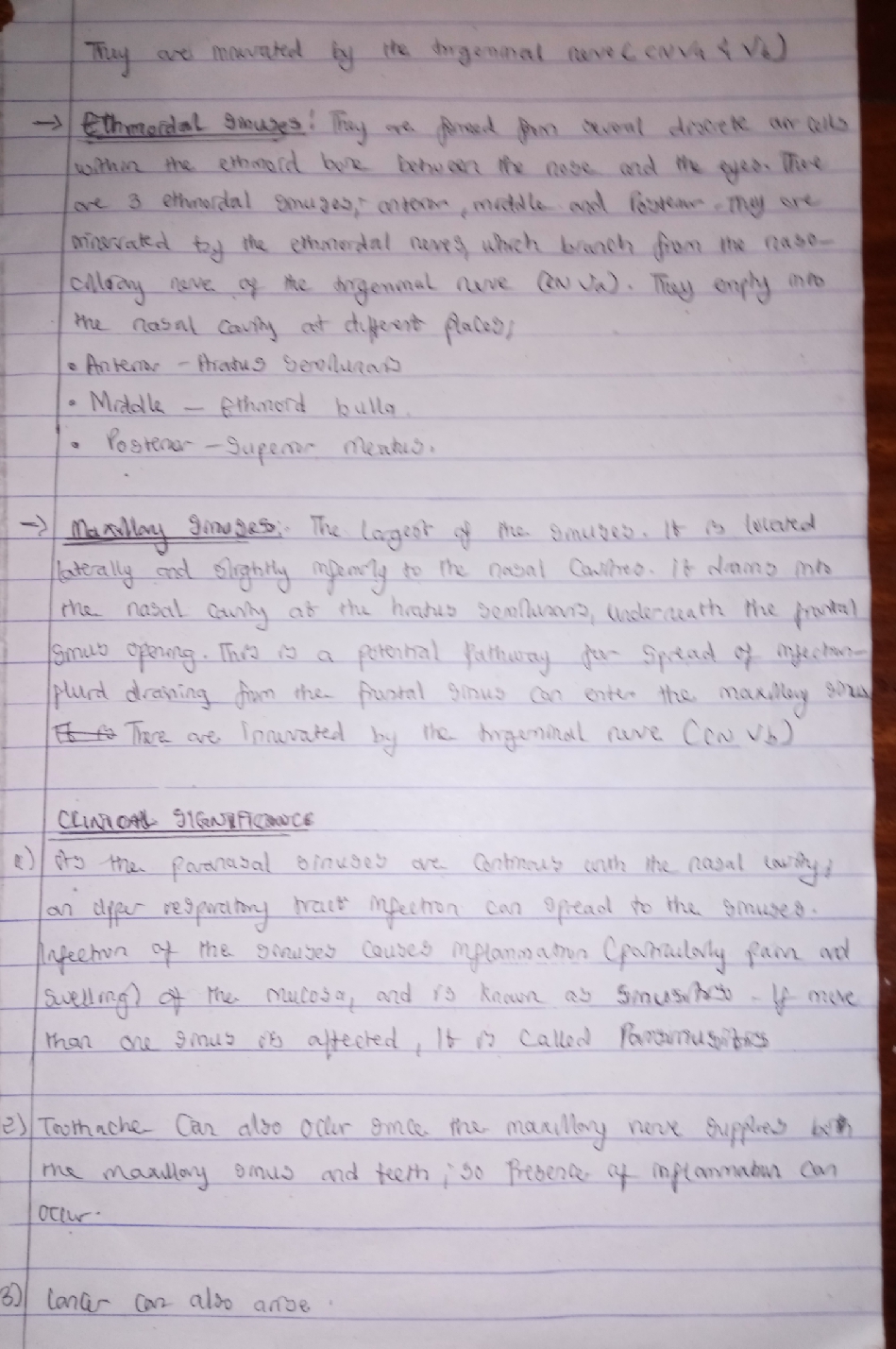
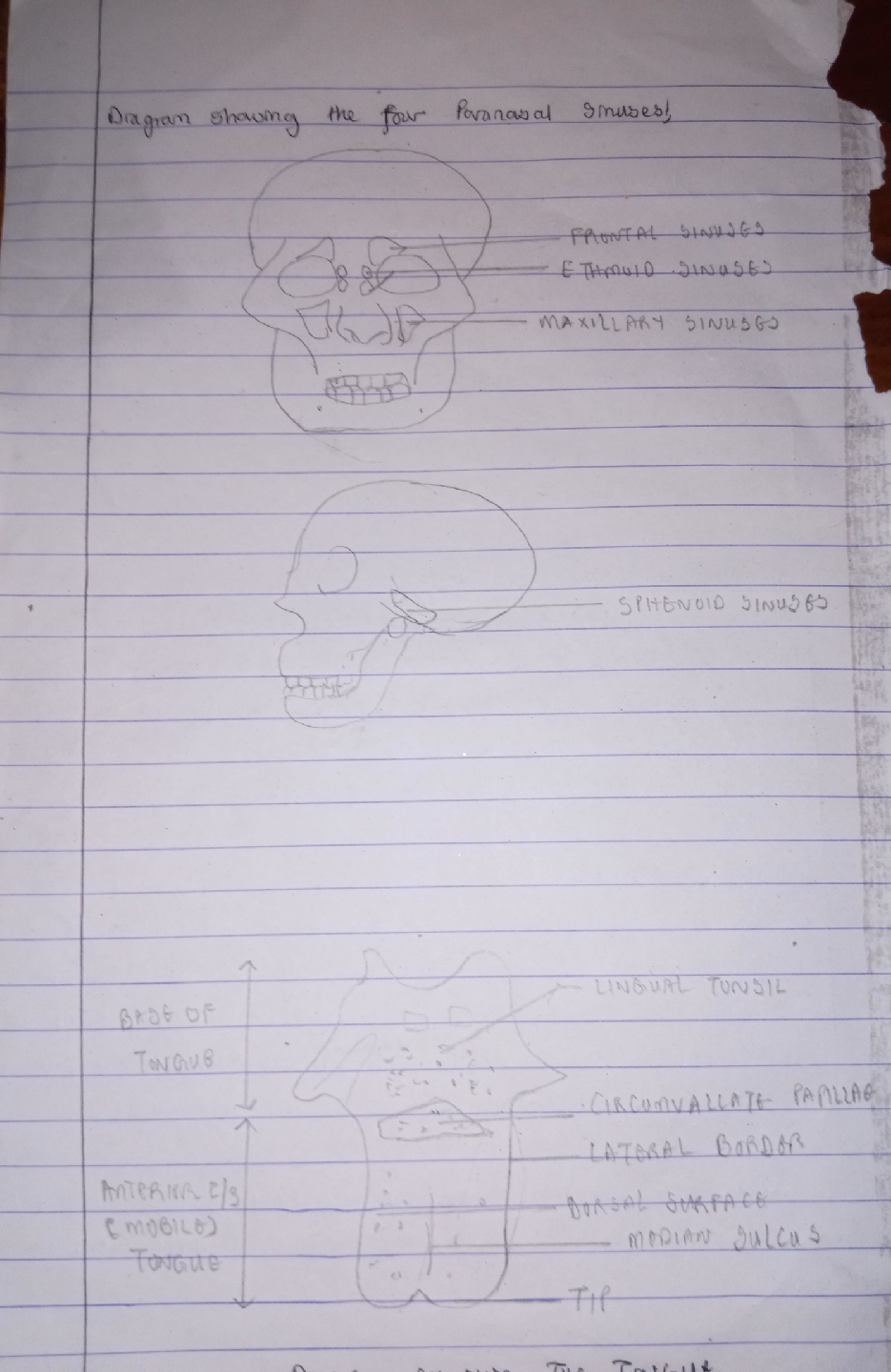
ii.) **The Foliate papillae:** are small folds of mucosa located along the lateral surface of the tongue.

iii.) **The Filiform Papillae:** are thin and long. They are the most numerous papillae and are located along the entire dorsum of the tongue but not involved in taste sensation.

iv.) **The Fungiform Papillae:** are mushroom shaped and are dispersed most densely along the tip and lateral surfaces of the tongue. Humans have about **200-300** fungiform papillae.

. Each vallate, foliate and fungiform papilla contains taste buds; **250, 1000 and 1600** **respectively.** Each taste buds is innervated by several nerve fibers and can perceive 5 different taste qualities like; salt, sweet, bitter, acid and umami (sour). Each of these taste buds consists of taste receptor, basal and edge cells. The average length of the human tongue from the oropharynx to the tip is 10cm. The average of the human tongue in adult male is **70g** and in adult female is **60g**.



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