

Course Title: Histology II

Instructor: Ms. Salma

Ishaq

Max Marks: 30

NOTE:

### Midterm assignment

Muhammad Tahir, ID NO :15083.Semester 4,DT

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#### SECTION-A

- 1) The mucosa which is bound to jaw bone is the  
(a) Masticatory mucosa (b) mucous membrane (c) specialized mucosa (d) all of them
- 2) The surface of the oral cavity is a  
(a) Epithelium line (b) Alveolar mucosa (c) mucous membrane (d) none of them
- 3) The sublingual tissues are normally non-keratinized.  
(a) True (b) False
- 4) The intermediate filament in oral epithelial cells is the  
(a) non-keratinized (b) keratinized (c) both of them (d) none of them
- 5) After arriving at a differential diagnosis, information from which one of the following categories will best establish a final or definitive diagnosis?  
(a) historical (b) Microscopic (c) Radiographic (d) clinical
- 6) The initial response of the body to injury is always the process of  
(a) immunity (b) inflammation (c) repair (d) hyperplasia
- 7) The submandibular glands are located beneath the posterior part of the tongue.
- 8) Minor salivary glands in the mouth contain only mucous cells.
- 9) The parotid glands are located under the skin of the face in front of and below each ear.
- 10) To restore the normal structure and function the body response to injury is? WOUND HEALING.

#### SECTION-B

Q1: What is the concept of wound healing?

ANS : Response of body to injury to restore normal physiology of an organ or tissue. Two processes occur in wound healing which depend on the type of injury in the body.

#### A] REGENERATION

Some tissues and organs are able to restore the injury area by proliferation of uninjured cells in

the tissue, for example the proliferation of parenchymal cell in liver by growth factors of polypeptide as well as rapidly dividing epithelia of skin and intestine.

## 2] REPAIR

When the supporting cell of a tissue is severe damage then repair occurred by deposition of connective tissue as a result the formation of scar occurs that provide the stability to injury.

### CELLS RESPONSIBLE FOR REPAIR AND REGENERATION

- A) Mesenchymal Cells; These cells have capacity of proliferation in a tissue.
- B) Endothelial cells : They are responsible for angiogenesis in scar formation.
- C) Macrophages; They act to eliminate the pathogens.
- D) Platelets ;They provide help in blood clotting.
- E) Parenchymal cells ;These cells have ability for proliferation to repair the damage tissue.

## GROWTH FACTORS

- 1] Platelet growth factor ;They stimulate the restore of blood vessels as well as production of collagen.
- 2] Fibroblast growth factors : They stimulate tissue repair.
- 3] Epidermal growth factor : They are responsible for angiogenesis.
- 4] Keratinocyte growth factor ;They promote new generation of keratinocytes.
- 5] Transforming growth factor :They stimulate endothelial cells for promotion of healing

## PHASES OF HEALING

- 1] HEMOSTASIS PHASE ; When damage of mucosal surface occurred that causes vascular damage as a result deposition of platelets and fibrin take place due to coagulation occurs.
- 2] INFLAMMATORY PHASE: The monocyte, mast cells, leukocyte are migrated where they are needed to cause inflammation with offending agents.
- 3] REPARATIVE PHASE ; When the damage occurred in epithelium as a result the migration of epithelial cells at wound margin. After that the angiogenesis start in damage tissue with the help of endothelial cells. The blood vessels formation completed which provide nutrients for the formation of connective tissue. Collagen are deposited by fibroblast.
- 4] WOUND CONTRACTION : Collagen are lay down by fibroblast are able to draw the edges of wound together due to contraction of wound occurs.

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.Q ;2 ,Illustrate different types of glands ?

Ans ; There are three major glands in oral cavity, but minor glands of saliva are severe. They secrete saliva throughout mouth in oral cavity.

## **1] PAROTID GLAND**

It is a largest salivary gland in oral cavity. It located subcutaneously in front of external ear, but the deeper portion of it lies behind the ramus of mandible. Preauricular region, is a place where it located. It has a rich blood supply because of production of saliva during meal time. It secrete 20 Percent of saliva. Parotid gland connected with facial nerve (cranial nerve 12). It receive branches of external carotid artery.

## **2] SUBMANDIBULAR GLAND**

It is very close to the sublingual gland. These glands are located both superiorly and inferiorly to the inner aspect of mouth. They secrete 70 Percent of saliva in oral cavity. The excretory duct of them run above the mylohyoid muscle and open beneath the tongue. They receive branches from lingual and facial arteries. Innervation provide by cranial nerve VII.

## **3] SUBLINGUAL GLAND**

It is a smallest gland lies bilaterally on the floor of mouth. These glands have several duct opening. They secrete thick viscous saliva. They secrete 5 percent saliva. They gain blood supply from sublingual and submental arteries. Innervation provide by cranial nerve VII.

## **MINOR SALIVARY GLAND**

They are smallest aggregates of secretor tissue. They are located in the whole oral cavity except the gingiva and anterior portion of hard palate. They are 600 to 1000 in number. They secrete 10 percent of saliva which to keep moist the oral cavity. These glands arises from proliferation of oral epithelial cells.

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