

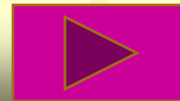
A PRESENTATION ON “DIGESTION AND ABSORPTION”

PRESENTED BY:-

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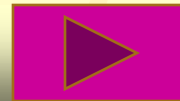
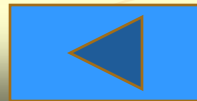
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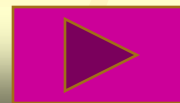
CONTENTS

- **DIGESTION**
- **TYPES OF DIGESTION**
- **HUMAN DIGESTIVE SYSTEM**
 - **ALIMENTARY CANAL**
 - **DIGESTIVE GLANDS**
- **DIGESTION OF FOOD**
- **ABSORPTION**
- **ABSORPTION OF DIGESTED PRODUCTS**
- **DISORDERS OF DIGESTIVE SYSTEM**

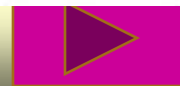
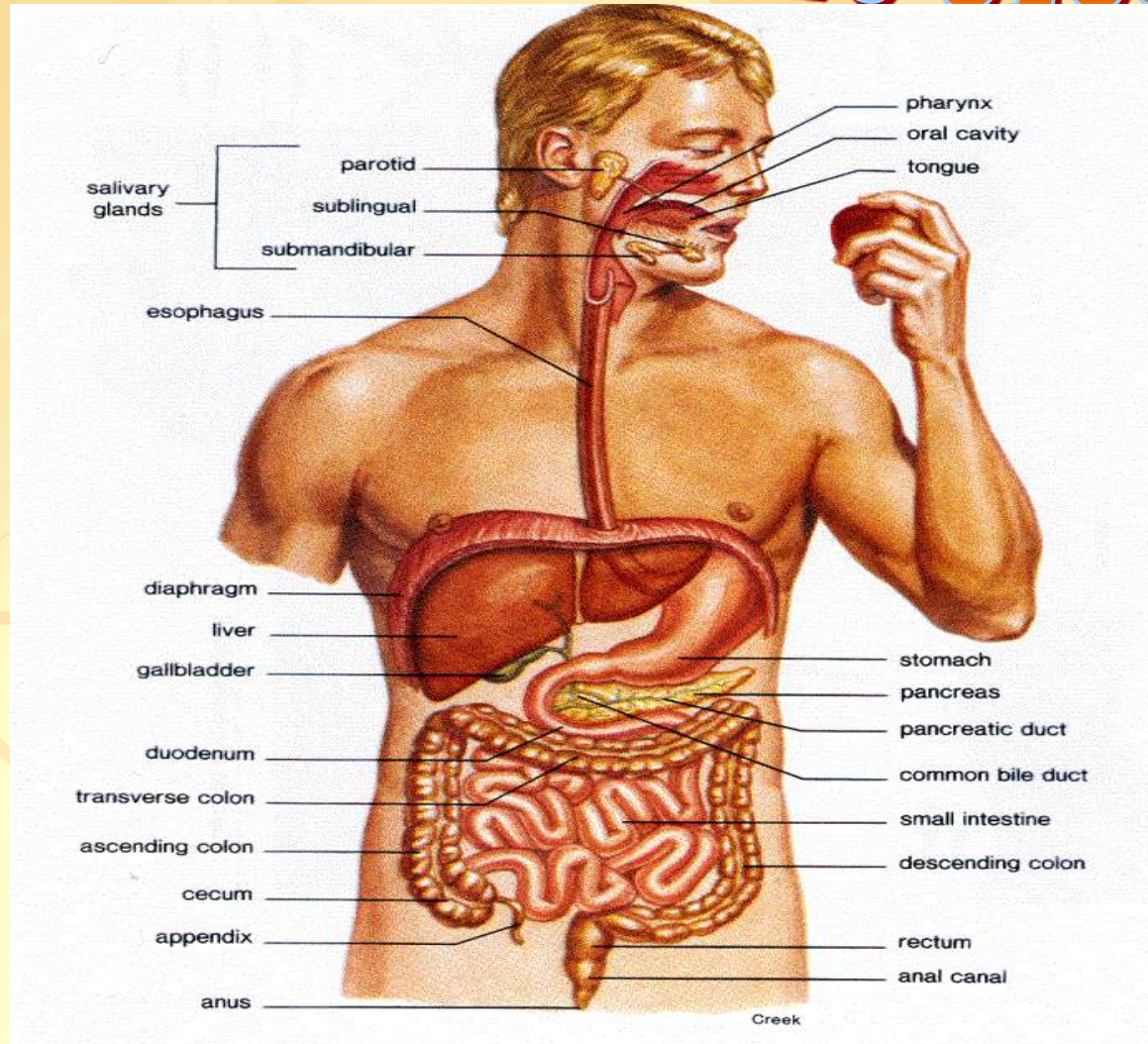


WHAT IS DIGESTION ???

Digestion is a **catabolic process** by which non-diffusible complex biomolecules are changed into simple and diffusible biomolecules



Human Digestive System



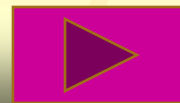
HUMAN DIGESTIVE SYSTEM

Digestive system of man consists of

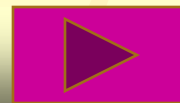
- ❖ ALIMENTARY CANAL
- ❖ DIGESTIVE GLANDS

ALIMENTARY CANAL

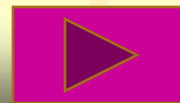
It is a long sized (about 8-10m in length) tube of varying diameter and is complete (extends from mouth to anus). It is fond of following parts:-



- **MOUTH:-**It is a transverse slit-like aperture which is bounded by two soft movable lips (labia). Mouth is for ingestion
- **BUCCOPHARYNGEAL CAVITY:-**It is the space bounded dorsally by skull and ventrally by throat. It is divisible into three parts:-
 - (a) **VESTIBULE:-**It is a space bounded by lips and cheeks externally and the gums and teeth internally.
 - (b) **BUCCAL (ORAL) CAVITY:-**It is the space bounded dorsally by palate, ventrally by throat and laterally by alveolar processes of jaws having teeth. It has following structures:-



- (i) **PALATE:** - It forms the roof of buccal cavity and separates buccal cavity from nasal chamber.
- (ii) **TONGUE :** - It is a thick musculo-sensory organ present on the floor of buccal cavity
- (iii) **TEETH (DENTES):** -
POSITION: - Situated in oral cavity. Teeth in man are present in both the jaws and are thecodont i.e. embedded in socket of jaw bone.
DEVELOPMENT: - The teeth are developed in two sets – milk teeth and permanent or successional teeth. Milk teeth are smaller, weaker and temporary.



Dental formula of milk teeth is: -

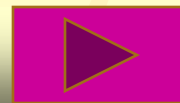
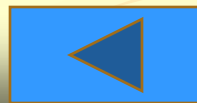
i 2/2, c 1/1, pm 0/0, m 2/2 or 2102/2102 = 20. i, c, pm and m denote incisors, canines, premolars and molars.

TYPES OF PERMANENT TEETH: - These are of four types on the basis of their function: Incisors, Canines, Premolars and Molars & are called heterodont.

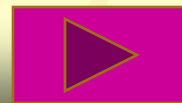
PERMANENT TEETH: - These replace the temporary teeth at about the age of six years and by 14 years about 28 teeth erupt. **Dental formula of adult man is: -**

i 2/2, c 1/1, pm 2/2, m 3/3 or 2123/2123 = 32

Third pair of molars of permanent set erupt between the eighteenth and twenty-fifth year and sometimes never erupt. These are called wisdom teeth. Development of teeth in man in two sets is called diphyodont.



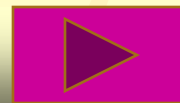
Types of Teeth



FUNCTION: - Teeth help in mastication of food with the help of hard chewing surface formed of enamel which increases its surface area for the better action of enzymes. Mastication is aided by jaw muscles.

(c) **PHARYNX:** - It is the posterior most part of the buccopharyngeal cavity. It is small sized, conical & common passage for food and air. It is divided into three parts:-

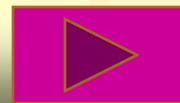
NASOPHARYNX :- lies behind the nasal chamber.



OROPHARYNX:- lies behind the buccal cavity & is the passage for food.

LARYNGOPHARYNX:- is the lowest part of pharynx. It has two apertures – anterior slit-like glottis and posterior gullut.

- **OESOPHGUS:** - It is long (22-25 cm) narrow, muscular and tubular structure. It runs downward through the neck behind the trachea, passes through the diaphragm and opens in the stomach in the abdomen. It conducts the food to stomach by peristalsis.
- **STOMACH:** - The stomach is most distensible portion of the alimentary canal. It is thick, muscular, J-shaped organ present on the left side of upper part of abdominal cavity below the diaphragm.



Stomach

