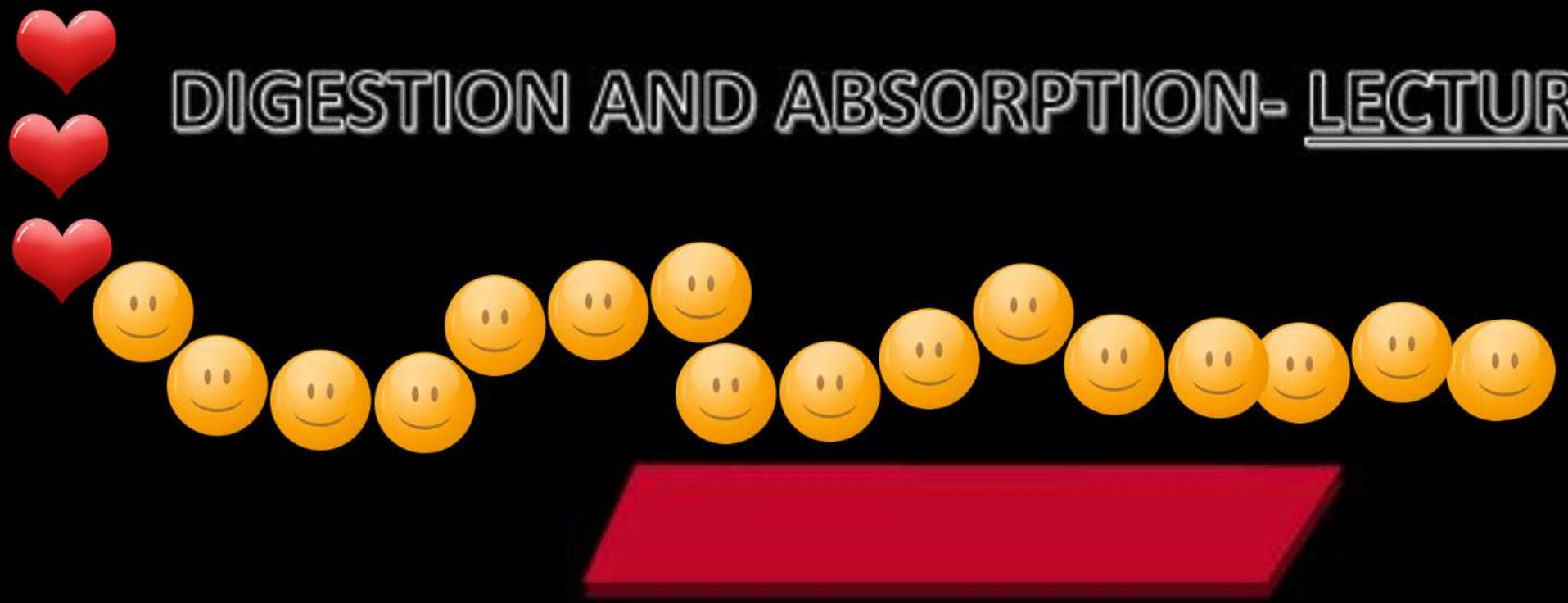
ARJUNA NEET BATCH

DIGESTION AND ABSORPTION- LECTURE -06



PEM

Dietary deficiencies of proteins and total food calories are widespread in many underdeveloped countries of South and South-east Asia, South America, and West and Central Africa. **Protein-energy malnutrition (PEM)** may affect large sections of the population during drought, famine

PEM

Marasmus

→ Below 1 yr of age

→ Deficiency of PROTEIN + other Calories

→ Symptoms → Prominent Ribs, Mental retardation, Dry & wrinkled skin.

Kwashiorkar

→ Occurs in children 1-5 yr age

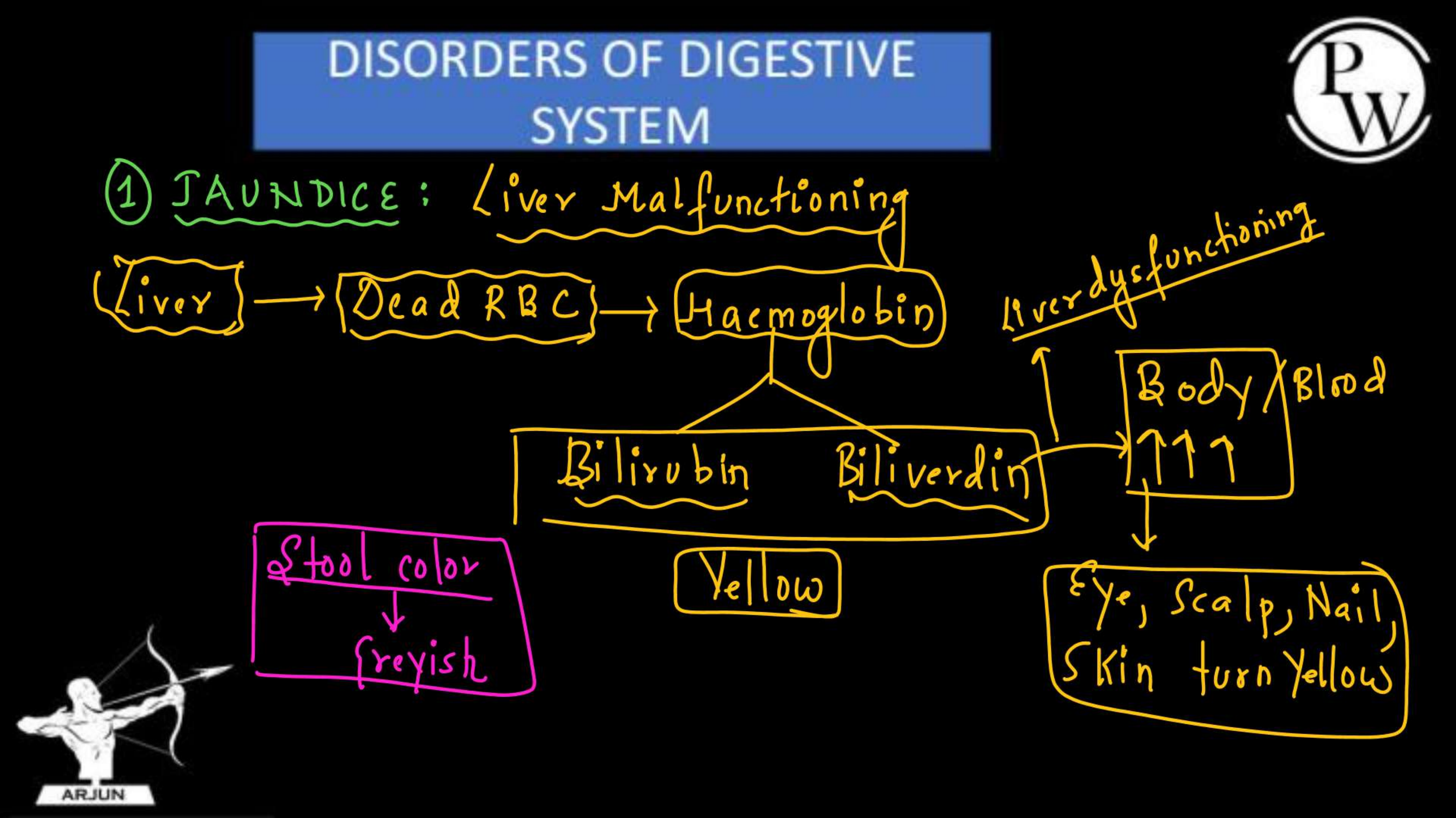
→ DEFIECIENCY OF PROTEINS

→ Mental retardation, fat is still present in some amount Below skin, OEDEMA (water retention, swelling)

Marasmus is produced by a simultaneous deficiency of proteins and calories. It is found in infants less than a year in age, if mother's milk is replaced too early by other foods which are poor in both proteins and caloric value. This often happens if the mother has second pregnancy or childbirth when the older infant is still too young. In Marasmus, protein deficiency impairs growth and replacement of tissue proteins; extreme emaciation of the body and thinning of limbs results, the skin becomes dry, thin and wrinkled. Growth rate and body weight decline considerably. Even growth and development of brain and mental faculties are impaired.

Kwashiorkar is produced by protein deficiency unaccompanied by calorie deficiency. It results from the replacement of mother's milk by a high calorie-low protein diet in a child more than one year in age. Like marasmus, kwashiorkor shows wasting of muscles, thinning of limbs, failure of growth and brain development. But unlike marasmus, some fat is still left under the skin; moreover, extensive oedema and swelling of body parts are seen.

DISORDERS OF DIGESTIVE SYSTEM



② Vomiting: Ejection of stomach content through Mouth

Vomiting centre : Medulla of Brain.

③ Indigestion: Overeating, Spicy food, Stress, Anxiety, insufficient enzyme production may cause incomplete digestion of food.

④ Constipation : Prolonged storage of faecal matter in the COLON, Stool Becomes Hard & difficult to defaecate.

⑤ Diarrhoea: Frequent BOWEL movement, extreme liquidity of faecal matter.

16.4 Disorders of Digestive System

The inflammation of the intestinal tract is the most common ailment due to bacterial or viral infections. The infections are also caused by the parasites of the intestine like tapeworm, roundworm, threadworm, hookworm, pin worm, etc.

Jaundice: The liver is affected, skin and eyes turn yellow due to the deposit of bile pigments.

Vomiting: It is the ejection of stomach contents through the mouth. This reflex action is controlled by the vomit centre in the medulla. A feeling of nausea precedes vomiting.

Brain

Diarrhoea: The abnormal frequency of bowel movement and increased liquidity of the faecal discharge is known as diarrhoea. It reduces the absorption of food.

Constipation: In constipation, the faeces are retained within the colon as the bowel movements occur irregularly.

Indigestion: In this condition, the food is not properly digested leading to a feeling of fullness. The causes of indigestion are inadequate enzyme secretion, anxiety, food poisoning, over eating, and spicy food.

PYQ's NEET

AIPMT 2015

11. Gastric juice of infants contains :-

(1) nuclease, pepsinogen, lipase

(2) pepsinogen, lipase, rennin

(3) amylase, rennin, pepsinogen

(4) maltase, pepsinogen, rennin

+4

-1

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NEET-I 2016

12. In the stomach, gastric acid is secreted by the :-

(1) gastrin secreting cells
(2) parietal cells
(3) peptic cells
(4) acidic cells

13. Which of the following guards the opening of hepatopancreatic duct into the duodenum?

(1) Semilunar valve
(2) Ileocaecal valve
(3) Pyloric sphincter
(4) Sphincter of Oddi

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CCK P2 → Pancreas

NEET-II 2016

14. Which hormones do stimulate the production of pancreatic juice and bicarbonate?

(1) Cholecystokinin and secretin

(2) Insulin and glucagon

(3) Angiotensin and epinephrine

(4) Gastrin and insulin

→ Pancreas → PJ

Bicarbonate

+Q ✓

−1 ✗

NEET 2017

Which cells of "Crypts of Lieberkuhn" secrete antibacterial lysozyme ?

(1) Paneth cells
(2) Zymogen cells
(3) Kupffer cells
(4) Argentaffin cells

Which of the following options best represents the enzyme composition of pancreatic juice ?

(1) amylase, pepsin, trypsinogen, maltase
(2) peptidase, amylase, pepsin, rennin
(3) lipase, amylase, trypsinogen, procarboxypeptidase
(4) amylase, peptidase, trypsinogen, rennin

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A baby boy aged two years is admitted to play school and passes through a dental check - up. The dentist observed that the boy had twenty teeth. Which teeth were absent?

(1) Canines

(2) Pre-molars

(3) Molars

(4) Incisors

Last 4 molar

NEET 2018

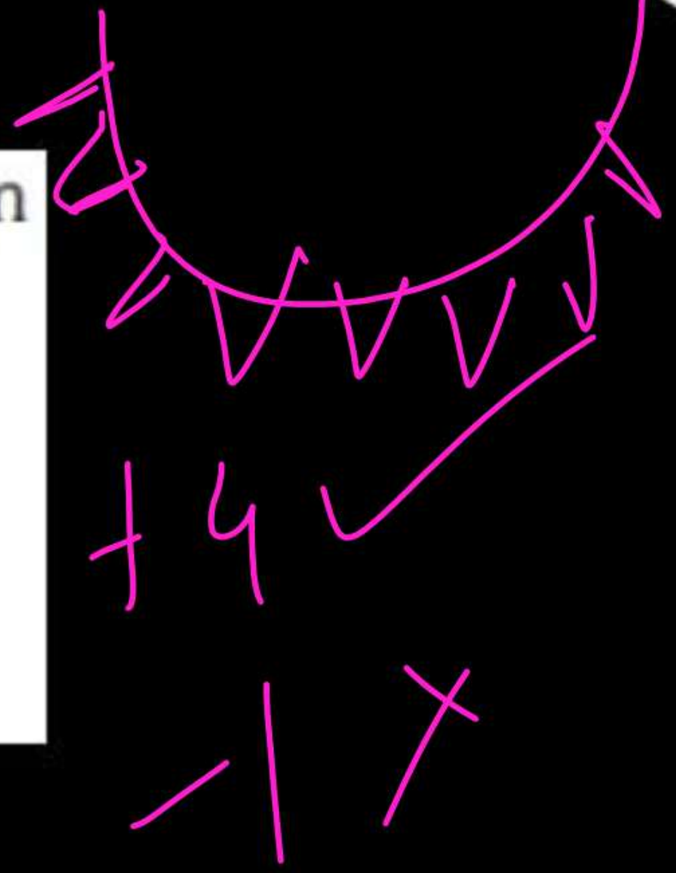
Which of the following terms describe human dentition ?

(1) Thecodont, Diphyodont, Homodont

(2) Thecodont, Diphyodont, Heterodont

(3) Pleurodont, Monophyodont, Homodont

(4) Pleurodont, Diphyodont, Heterodont



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23. Match the following structures with their respective location in organs.

(a) Crypts of Lieberkuhn	(i) Pancreas
(b) Glisson's Capsule	(ii) Duodenum
(c) Islets of Langerhans	(iii) Small intestine
(d) Brunner's Glands	(iv) Liver

Select the correct option from the following

	(a)	(b)	(c)	(d)
(1)	(iii)	(i)	(ii)	(iv)
(2)	(ii)	(iv)	(i)	(iii)
(3)	(iii)	(iv)	(i)	(ii)
(4)	(iii)	(ii)	(i)	(iv)

24. Identify the cells whose secretion protects the lining of gastro-intestinal tract from various enzymes.

(1) Chief Cells
(2) Goblet Cells
(3) Oxyntic Cells
(4) Duodenal Cells

Mucus

NEET 2020

101. Intrinsic factor that helps in the absorption of vitamin B_{12} is secreted by :-

(1) Goblet cells
(2) Hepatic cells
(3) Oxyntic cells
(4) Chief cells

107. The proteolytic enzyme rennin is found in :

(1) Intestinal juice
(2) Bile juice
(3) Gastric juice
(4) Pancreatic juice

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