

Chapter 12

Nutrition

TOPIC WISE MULTIPLE CHOICE QUESTIONS

INTRODUCTION & AUTOTROPHIC NUTRITION

KIPS MCQs

- (1) _____ can exist in an exclusively inorganic environment:
- (a) Plants d (b) Animals
(c) Fungi (d) All of these
- (2) Chlorosis is caused by deficiency of:
- (a) Phosphorus (b) Nitrogen
(c) Magnesium (d) Both “b” & “c”
- (3) A plant requires nitrogen and sulfur for its:
- (a) Cell wall (b) Enzymes
(c) Starch deposits (d) DNA replication
- (4) Magnesium is an important nutrient ion in plant essential component of:
- (a) Cell sap (b) Protein
(c) Chlorophyll (d) Glucose

PAST PAPERS MCQs

- (5) In plants, stunted growth of root is due to deficiency of: (BWP 2022)
- (a) Potassium (b) Magnesium
(c) Nitrogen (d) Phosphorus

HETEROTROPHIC NUTRITION METHODS OF PLANT NUTRITION

KIPS MCQs

- (6) *Cuscuta* is:
- (a) Parasite (b) Saprophyte
(c) Decomposer (d) Autotroph
- (7) All the insectivorous plants are:
- (a) Heterotrophic (b) Autotrophic
(c) Decomposers (d) Parasites
- (8) End of leaf is modified to form a hood in:
- (a) *Sarracenia purpurea* (b) *Drosera intermedia*
(c) *Dionaea muscipula* (d) All of these
- (9) Pick out the different:
- (a) Dodder (b) Sundew
(c) Venus fly trap (d) Pitcher plant
- (10) Parasitic plants have special structures called:
- (a) Rhizoids (b) Suckers
(c) Tendrils (d) Both a & b

PAST PAPERS MCQs

- (11) Which of the following is a parasitic plant? (SGD 2019)
- (a) *Drosera* (b) *Dionea*
(c) *Cuscuta* (d) *Sarracenia*

- (12) Which has parasitic nutrition? (FSD 2021)
 (a) Cuscuta (b) Mycorrhiza
 (c) Nitrogen fixing bacteria (d) Lichens
- (13) All the insectivorous plants are: (LGK 2022)
 (a) Heterotrophic (b) Autotrophic
 (c) Decomposers (d) Parasites
- (14) The example of parasitic plant is _____. (RWP 2022)
 (a) Puccinia (b) Sundew
 (c) Cuscuta (d) Picher plant

METHODS OF ANIMAL NUTRITION

PAST PAPERS MCQs

- (15) Undigested matter from the food is moved out by _____ system.
 (a) Excretory (b) Digestive
 (c) Respiratory (d) Circulatory
- (16) In Deer there is a large gap between:
 (a) Incisors & canines (b) Canines & premolars
 (c) Premolars & molars (d) Incisors & premolars
- (17) Which of the following is/are absent in dog?
 (a) Premolars (b) Molars
 (c) Incisors (d) None of these
- (18) Which of the following does not eat plant for food?
 (a) Crows (b) Red fox
 (c) Bears (d) None of these
- (19) _____ filters its food from water.
 (a) Snail (b) Whales
 (c) Octopus (d) Both "a" & "b"
- (20) _____ is a fluid feeder.
 (a) Aphid (b) Hydra
 (c) Shark (d) Whale
- (21) Example/s of macrophage feeders is/are:
 (a) Hydra (b) Snail
 (c) Shark (d) All of these
- (22) What is true about leech?
 (a) Endoparasite (b) Ectoparasite on aquatic animals
 (c) Ectoparasite on terrestrial animals (d) Both "b" & "c"
- (23) Pick out the different considering location:
 (a) Ascaris (b) Flea
 (c) Entamoeba histolytica (d) Tape worm
- (24) The animals which feed only on plants are:
 (a) Detritivores (b) Herbivores
 (c) Carnivores (d) Omnivores

PAST PAPERS MCQs

- (25) Animals that feed on plants are called: (DGK 2017)
 (a) Herbivores (b) Carnivores
 (c) Filter feeders (d) Omnivores

- (26) Which of the following is fluid feeder? (FSD 2019)
 (a) Aphid (b) Earthworm
 (c) Sheep (d) Man

DIGESTION AND ABSORPTION

KIPS MCQs

- (27) Which of the following is not directly available to the organisms?
 (a) Water (b) Oxygen
 (c) Amino Acids (d) All of these
- (28) Assimilation of food includes:
 (a) Digestion (b) Absorption
 (c) Egestion (d) Utilization
- (29) Taking in of complex food is called:
 (a) Digestion (b) Absorption
 (c) Assimilation (d) Ingestion

DIGESTION IN AMOEBA

KIPS MCQs

- (30) In amoeba, pseudopodia may be used for:
 (a) Removal of wastes (b) Asexual reproduction
 (c) Ingestion of food (d) All of these
- (31) In Amoeba, removal of wastes may occur from _____ side of the body.
 (a) Anterior (b) Posterior
 (c) Lateral (d) Any side

PAST PAPERS MCQs

- (32) The animal having only intra-cellular digestion is: (RWP 2017)
 (a) Frog (b) Planaria
 (c) Amoeba (d) Hydra
- (33) Amoeba moves and obtains food by means of: (GRW 2017)
 (a) Flagella (b) Pseudopodia
 (c) Flexing (d) Cilia

DIGESTION IN HYDRA

KIPS MCQs

- (34) Trigger for the discharge of nematocyst is:
 (a) Major barb (b) Minor barb
 (c) Cnidocil (d) Hollow thread
- (35) Which type of digestion occurs in hydra?
 (a) Extracellular (b) Intracellular
 (c) Both of these (d) None of these
- (36) In hydra, indigestible food is expelled out from the gastrovascular cavity via:
 (a) Mouth (b) Anus
 (c) Cyoproct (d) Diffusion

PAST PAPERS MCQs

- (37) In hydra ectodermal cells get food from endodermal cells by: (GRW 2018)
 (a) Osmosis (b) Diffusion
 (c) Active transport (d) facilitated diffusion

DIGESTION IN PLANARIA**KIPS MCQs**

- (38) In Planaria, mouth is located on _____ side:
 (a) Dorsal (b) Ventral
 (c) Lateral (d) Posterior
- (39) In Planaria, intestine receives the food from:
 (a) Oesophagus (b) Pharynx
 (c) Mouth (d) Oral cavity

PAST PAPERS MCQs

- (40) The intestinal caecae are present in the digestive system of _____ (GRW 2017)
 (a) Amoeba (b) Hydra
 (c) Planaria (d) Cockroach

DIGESTION IN COCKROACH**KIPS MCQs**

- (41) In cockroach, salivary gland/s is/are:
 (a) Two glands in thoracic region (b) Two pairs in mouth
 (c) Four in number (d) None of these
- (42) In cockroach, is/are used to break the food into small pieces:
 (a) Crop (b) Mandibles
 (c) Saliva (d) Mouth

PAST PAPERS MCQs

- (43) In cockroach partly digested food is temporarily stored in: (LHR 2019, LHR 2017)
 (a) Rectum (b) Gizzard
 (c) Crop (d) Colon

DIGESTION IN MAN**(Digestion in Oral Cavity)****KIPS MCQs**

- (44) Saliva is:
 (a) Alkaline and then acidic (b) Acidic and then alkaline
 (c) Alkaline and remains so (d) Acidic and remains so
- (45) Bolus is pushed towards back of mouth by:
 (a) Action of tongue (b) Muscles of pharynx
 (c) Both "a" & "b" (d) Peristalsis
- (46) At the time of swallowing, epiglottis is forced by tongue in _____ position.
 (a) Horizontal (b) Vertical
 (c) Lateral (d) Oblique
- (47) _____ is a part of digestive and respiratory system both.
 (a) Larynx (b) Pharynx
 (c) Tongue (d) Glottis
- (48) Swallowing is _____ process.
 (a) Voluntary (b) Involuntary
 (c) Voluntary and then involuntary (d) Involuntary and then voluntary
- (49) Peristalsis is a wave of contraction of:
 (a) Circular muscles (b) Longitudinal muscles
 (c) Smooth muscles (d) All of these

- (50) Which salivary gland does not secrete amylase?
 (a) Parotid (b) Submandibular
 (c) Sublingual (d) None of these
- (51) Which is not the function of oral cavity?
 (a) Mechanical digestion (b) Chemical digestion
 (c) Selection of food (d) Digestion of protein
- (52) During swallowing:
 (a) Glottis is partly closed by contraction of muscles
 (b) Completely closed
 (c) Remain open
 (d) Not constricted but only covered by epiglottis
- (53) Parotid glands are situated in front of the:
 (a) Jaws (b) Ears
 (c) Tongue (d) Eyes
- (54) Hunger pangs are:
 (a) Peristaltic waves (b) Caused by low blood glucose level
 (c) Occur 12 – 24 hrs after meal (d) All of these

PAST PAPERS MCQs

- (55) The enzyme that digests carbohydrates are: (LHR 2018)
 (a) Lipase (b) Amylase
 (c) Pepsin (d) Erypsin
- (56) Taste buds of tongue play important role on food: (SWL 2019)
 (a) Digestion (b) Selection
 (c) Lubrication (d) Mastication
- (57) Carbohydrate digesting enzyme amylopsin digest starch into: (DGK 2021)
 (a) Lactose (b) Sucrose
 (c) Maltose (d) Fructose
- (58) pH of fresh saliva is:
 (a) 6 (b) 8
 (c) 7 (d) 9

ENTERY TEST BASED MCQs

- (59) Food is diverted in the oesophagus by: (MDCAT 2017)
 (a) Glottis (b) Cheeks
 (c) Tongue (d) Epiglottis
- (60) Salivary amylase begins to digest starch to shorter polysaccharides and then to: (MDCAT 2017)
 (a) Sucrose (b) Maltose
 (c) Glucose (d) Lactose
- (61) Type of salivary glands found in human oral cavity: (MDCAT 2017)
 (a) 3 (b) 6
 (c) 4 (d) 2

DIGESTION IN STOMACH**KIPS MCQs**

- (62) What is true about location of stomach?
 (a) Above the diaphragm (b) Below the diaphragm
 (c) On left side of abdomen (d) Both “b” & “c”

- (63) Which one is not the function of stomach?
 (a) Storage of food (b) Digestion of dipeptides
 (c) Mechanical digestion (d) Production of HCl
- (64) Which is not an enzyme?
 (a) Gastrin (b) Enterokinase
 (c) Trypsin (d) Trypsin
- (65) Pepsinogen is converted into active pepsin by:
 (a) HCl (b) Pepsin
 (c) Bile (d) Both a & b
- (66) Zymogen cells secrete:
 (a) Gastrin (b) HCl
 (c) Pepsin (d) Pepsinogen
- (67) The stimulation for the production of gastrin is:
 (a) Presence of HCl (b) Protein food
 (c) Pepsin (d) Enterokinase
- (68) The pH of stomach is about:
 (a) 3-4 (b) 1-2
 (c) 2-3 (d) 6-8
- (69) HCl is secreted by which gastric gland's cell of stomach:
 (a) Mucous cell (b) Chief cells
 (c) Parietal cells (d) Zymogen cells
- (70) Which is not related to gastric juice in humans?
 (a) Pepsinogen (b) Mucus
 (c) HCl (d) Amylase

PAST PAPERS MCQs

- (71) Which of the following secrete the pepsinogen: (SGD 2017)
 (a) Mucus cell (b) Parietal cell
 (c) Oxyntic cell (d) Zymogen cell
- (72) In human stomach HCl is secreted by: (LHR 2019)
 (a) Mucous cells (b) Oxyntic / parietal cells
 (c) Zymogen cells (d) Chief cells
- (73) Zymogenic cells of gastric glands secrete: (GRW 2021)
 (a) Mucous (b) Hydrochloric acid
 (c) Pepsinogen (d) Ptyalin
- (74) In stomach hydrochloric acid is secreted in concentrate form. For the pepsin to act on protein pH is adjusted ranging from _____. (GRW 2021)
 (a) 1 – 2 (b) 2 – 3
 (c) 3 – 4 (d) 4 – 5
- (75) The human stomach is situated below the: (MTN 2021)
 (a) Liver (b) Transpiration
 (c) Spleen (d) Diaphragm
- (76) Pepsinogen is secreted by: (BWP 2021)
 (a) Zymogen cells (b) Mucous cells
 (c) Parietal cells (d) Oxyntic cells
- (77) HCl in gastric juice is secreted by which one of the following cells: (MTN 2022)
 (a) Chief cells (b) Mucous cells
 (c) Zymogens cells (d) Oxyntic cells

(78) The optimum pH for pepsin is:

- (a) 2.00 (b) 4.50
(c) 5.50 (d) 7.60

(SWL 2022)

ENTRY TEST BASED MCQs

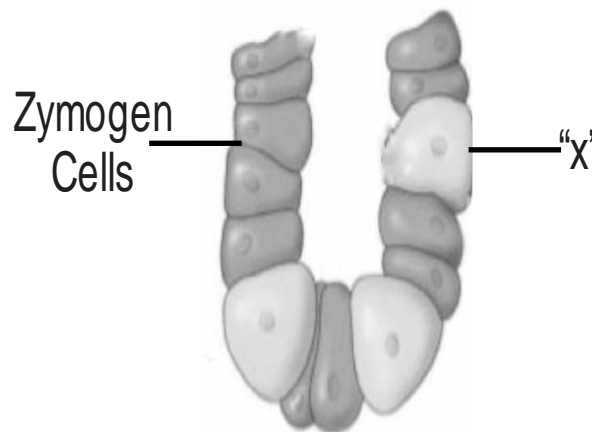
(79) Enzyme pepsin acts on:

Option	Substrate	Product
(a)	Proteins	Polypeptides
(c)	Polypeptide	Dipeptides
(b)	Fats	Fatty acids / glycerol
(d)	Proteins	Amino acids

(MDCAT 2017)

(80) Following is the structure of gastric glands in stomach wall where 'x' is:

(MDCAT 2017)



- (a) Mucosa (b) Visceral fat cells
(c) Mucus cells (d) Oxyntic cells

DIGESTION IN SMALL INTESTINE

KIPS MCQs

(81) Which of the following is not a part of small intestine in man?

- (a) Duodenum (b) Jejunum
(c) Ileum (d) Caecum

(82) Pick out the one related to trypsinogen:

- (a) Enterokinase (b) Trypsin
(c) Lipase (d) Amylase

(83) Function of secretin is to:

- (a) Inhibit release of bile (b) Maintain acidic medium
(c) Inhibit the secretion of gastric juice (d) Stimulate the secretion of gastric juice

(84) Which enzyme is present in bile?

- (a) Lipase (b) Amylase
(c) Trypsin (d) None

(85) The length of jejunum is about:

- (a) 2.4m (b) 6m
(c) 3.6m (d) 20-25cm

(86) The main constituent of gall stone is:

- (a) Oxalate (b) Bile salts
(c) Calcium (d) Cholesterol

- (87) Incompletely digested food when enters in duodenum is called:
 (a) Bile (b) Bolus
 (c) Chyme (d) Chyle
- (88) The function of trypsin is to convert:
 (a) Polypeptides into dipeptides (b) Dipeptides into amino acids
 (c) Protein into polypeptides (d) Protein into dipeptides
- (89) Liver secretes bile into:
 (a) Ileum (b) Stomach
 (c) Duodenum (d) Jejunum

PAST PAPERS MCQs

- (90) Gall stones are produced due to precipitation of: (FSD 2017)
 (a) Milk (b) Protein
 (c) Cholesterol (d) Glucose
- (91) If bile pigments are accumulated in Blood, condition is known as. (MTN 2017)
 (a) Gall stone (b) Jaundice
 (c) Pyrosis (d) Heart pang
- (92) Emulsification is the function of: (MTN 2017)
 (a) Bile (b) Lipase
 (c) Amylase (d) Protease
- (93) Gall stones are formed in the gall bladder due to the precipitation of: (DGK 2017)
 (a) Glycerol (b) Cholesterol
 (c) Sterols (d) Salts
- (94) The length of Duodenum of human is about: (BWP 2017)
 (a) 15 -- 20 cm (b) 20 -- 25 cm
 (c) 30 -- 35 cm (d) 10 -- 15 cm
- (95) Length of the duodenum is: (GRW 2019)
 (a) 20-25 cm (b) 20-25 meters
 (c) 20-25 mm (d) 20-25 Km
- (96) Chyme enters into duodenum through sphincter: (MTN 2021)
 (a) Cardiac (b) Anal
 (c) Pyloric (d) Ileocolic
- (97) Which animal system has no need for a gall bladder? (FSD 2022)
 (a) Cat (b) Dog
 (c) Lion (d) Goat
- (98) Hepatic and pancreatic secretions are stimulated by: (SGD 2022)
 (a) Gastrin (b) Pepsin
 (c) Secretin (d) Amylase
- (99) Enterokinase enzyme is secreted by lining of: (LHR 2022)
 (a) Pancreas (b) Liver
 (c) Duodenum (d) Stomach

ENTERI TEST BASED MCQs

- (100) All kinds of absorption take place in: (MDCAT 2017)
 (a) Duodenum (b) Ileum
 (c) Jejunum (d) Colon

DIGESTION IN LARGE INTESTINE & RECTUM**KIPS MCQs**

- (101) Large intestine harbors bacteria that synthesize vitamins specially vitamin:
 (a) K (b) C
 (c) D (d) E
- (102) Anus is surrounded by _____ muscles:
 (a) Smooth (b) Striped
 (c) Circular (d) All of these

PAST PAPERS MCQs

- (103) Appendix arise from blind end of: (SWL 2022)
 (a) Ileum (b) Caecum
 (c) Colon (d) Rectum

ENTRY TEST BASED MCQs

- (104) Appendix is finger like process arise from: (MDCAT 2017)
 (a) Colon (b) Caecum
 (c) Rectum (d) Small intestine
- (105) The first part of the large intestine is: (MDCAT 2018)
 (a) Caecum (b) Colon
 (c) Rectum (d) Appendix

Some Common Diseases Related to Nutrition**KIPS MCQs**

- (106) Which of the following causes food poisoning?
 (a) Salmonella (b) Campylobacter
 (c) Clostridium botulinum (d) All of these
- (107) Incomplete or imperfect digestion of food is called:
 (a) Food poisoning (b) Dyspepsia
 (c) Botulism (d) Both a & b
- (108) Condition associated with balance of hormones and heredity:
 (a) Obesity (b) Food poisoning
 (c) Anorexia Nervosa (d) Bulimia Nervosa
- (109) Piles are:
 (a) Hemorrhoids (b) Dilated veins
 (c) Tortuous veins (d) All of these
- (110) Condition common in young females:
 (a) Ulcer (b) Food poisoning
 (c) Anorexia Nervosa (d) Bulimia Nervosa
- (111) Excessive secretion of gastric juice results in sore in the wall of:
 (a) Duodenum (b) Stomach
 (c) Ileum (d) Both a & b
- (112) Which is not the symptom of dyspepsia?
 (a) Double vision (b) Nausea
 (c) Vomiting (d) Heartburn
- (113) Self-induce vomiting and use of purgatives are features of:
 (a) Obesity (b) Food poisoning
 (c) Anorexia Nervosa (d) Bulimia Nervosa

(114) If the absorption of water and salts does not take place due to infection, drug action or emotional disturbance, a condition known as:

- (a) Diarrhea
- (b) Vomiting
- (c) Dyspepsia
- (d) Anorexia

PAST PAPERS MCQs

(115) The term employed to the loss of appetite due to the fear of becoming obese is:

(SWL 2017)

- (a) Bulimia Nervosa
- (b) Anorexia Nervosa
- (c) Botulism
- (d) Obesity

(116) Excess gastric secretion is an important factor of:

(RWP 2019, SGD 2021)

- (a) Obesity
- (b) Piles
- (c) Food poisoning
- (d) Peptic ulcer

(117) Incomplete or imperfect digestion is called:

(LHR 2021)

- (a) Ulcer
- (b) Obesity
- (c) Dyspepsia
- (d) Botulism

ANSWER KEY

(Topic-Wise Multiple Choice Questions)

1	a	21	d	41	a	61		81	d	101	a
2	d	22	d	42	b	62	d	82	a	102	d
3	a	23	b	43	c	63	b	83	c	103	b
4	c	24	b	44	a	64	a	84	d	104	
5	d	25	A	45	a	65	d	85	a	105	
6	a	26	a	46	a	66	d	86	d	106	d
7	b	27	c	47	b	67	b	87	c	107	b
8	a	28	d	48	c	68	c	88	c	108	a
9	a	29	d	49	d	69	c	89	c	109	d
10	b	30	c	50	c	70	d	90	c	110	c
11	c	31	d	51	d	71		91	b	111	d
12	a	32	c	52	a	72		92	a	112	a
13	b	33	b	53	b	73		93	b	113	d
14	c	34	c	54		74		94	b	114	a
15	b	35	c	55	b	75		95	a	115	b
16	d	36	a	56	b	76		96	c	116	d
17	d	37	b	57	c	77	c	97	d	117	c
18	d	38	b	58	b	78	a	98	c	118	
19	b	39	b	59		79		99	c	119	
20	b	40	b	60		80		100		120	

INTRODUCTION & AUTOTROPHIC NUTRITION**KIPS QUESTIONS****Q:1 Define nutrition.**

Ans: The sum total of all the processes involved in the taking in and utilization of elements by which growth, repair and maintenance of activities in the organism are accomplished is called nutrition.

PAST PAPER QUESTIONS**Q:2** What is a nutrient?**(GRW 2018)****Q:3** Differentiate between Nutrition and Nutrient?**(DGK 2015, RWP 2021)****HETEROTROPHIC NUTRITION METHODS OF PLANT NUTRITION****KIPS QUESTIONS****Q:4 Describe one difference and one similarity each between Lichen and Mycorrhiza.****Ans: Similarity:**

Both are mutualistic associations of fungi.

Difference:

Lichen is association between fungi and algae while mycorrhiza is an association between fungi and vascular plants.

Q:5 What is the importance of mycorrhizae for plants?**Ans: Mycorrhizae:**

Mycorrhiza is an association between a fungus and roots of higher plants. The fungus depends upon the photosynthate of the plant.

Importance:

The benefit derived by mycorrhiza plant is not properly understood. However, it is known that the plants with mycorrhiza association show better growth than those without fungal partner. Possibly the mycorrhizal fungus benefits the plant by decomposing organic matter in the soil and providing water and minerals such as phosphorus to plant.

Q:6 What do you know about saprophytic nutrition?

Ans: The organisms that feed on dead and decaying matter such as dead leaves in the soil or rotting tree trunks are called saprotrophs (or saprophytes) and the method of nutrition is termed saprophytic nutrition. They produce extracellular enzymes that digest the decaying matter and then absorb the soluble products back into their cells.

Q:7 Give the features of saprophyte.**Ans:**

- Feeding on dead and decaying matter.
- They produce extracellular enzymes, which digest the decaying matter and then absorb the soluble products back into their cells.
- Some saprophytes involve in break down the proteins of dead plants and animals and release nitrates which are taken up by the plant roots and then built into new amino acids and proteins, thus helping in nitrogen cycle.

PAST PAPER QUESTIONS**Q:8** Define symbiotic nutrition.**(LHR 2021)****Q:9** How trapping and decomposition of insects occur in pitcher plant?**(LHR 2021)****Q:10** What are leguminous plants?**(LHR 2021)****Q:11** How trapping and digestion of insects occurs in Venus-fly trap?**(GRW 2021)****Q:12** Define saprophytic nutrition.**(GRW 2021)****Q:13** How trapping and digestion of insects occur in sundew?**(GRW 2021)****Q:14** How does Sundew get its food?**(SWL 2021)****Q:15** How lichens are different from mycorrhiza?**(MTN 2021)**

- Q:16** Write parasitic nutrition in plans. (DGK 2021)
Q:17 How Sundew (*Drosera*) shows its insectivorous activity? (LHR 2018, GRW 2022, RWP 2022)
Q:18 Describe mechanism of nutrition in *Dionea muscipula*. (BWP 2022)

METHODS OF ANIMAL NUTRITION

KIPS QUESTIONS

Q:19 Differentiate between carnivores and omnivores.

Ans.

Carnivores	Omnivores
Animals which feed on other animals are called carnivores.	The animals which eat both plant and animal as food are called omnivores.
They have large canine teeth for catching and tearing the prey. Incisors, premolars and molars are all adapted for cutting fish, cracking bones and reducing the chunks to sizes suitable for swallowing.	They have teeth structurally and functionally intermediate between the extremes of specialization attained by the teeth of herbivores and carnivores.
Cats, dogs, lions and tigers are common examples of carnivores.	Examples are crows, rats, red fox, bears, pigs and man.

Q:20 Distinguish detritivores from carnivores.

Ans:

Detritivores	Carnivores
The animals which feed on detritus (organic debris from decomposing plants and animals) are called detritivores. For example: Earthworm	Animals which feed on other animals are called carnivores. For example: lions and tigers
<ul style="list-style-type: none"> It ingests fragments of decaying organic matter especially vegetation either at the soil surface or during burrowing activity. 	<ul style="list-style-type: none"> They have large canine teeth for catching and tearing the prey. Incisors, premolars and molars are all adapted for cutting flesh, cracking bones and reducing the chunks to sizes suitable for swallowing.

PAST PAPER QUESTIONS

- Q:21** What are Detritivores? Give one example. (BWP 2017)
Q:22 Differentiate between detritivores and omnivours? (SWL 2017)
Q:23 What are fluid feeders? Give an example. (RWP 2017)
Q:24 What are macrophages feeders? Give one example. (GRW 2019)
Q:25 Differentiate between carnivores and omnivores. (RWP 2019, SGD 2021)
Q:26 What are filter feeders? Give their two examples. (RWP 2021)
Q:27 Differentiate ectoparasites and Endoparasites with examples. (FSD 2022)
Q:28 Differentiate between obligate and facultative parasites? (DGK 2017, BWP 2017, LHR 2018, SGD 2022)

DIGESTION AND ABSORPTION

KIPS QUESTIONS

Q:29 Define digestion.

Ans: The breakdown of complex organic compounds of food into simpler diffusible molecules by the action of enzymes is called digestion e.g. proteins (meat, fish, eggs etc.) are digested into amino acids.

Q:30 Define Digestion and Egestion.

Ans: Digestion:

The breakdown of complex organic compounds of food into simple diffusible molecules by the action of enzymes, e.g., proteins into amino acids is called digestion.

Egestion:

The elimination of undigested matter from the body is termed as egestion.

Q:31 Differentiate between absorption and assimilation.

Ans:

Absorption	Assimilation
Absorption is the uptake of the diffusible food molecules from the digestive region across the membrane in to the cell or into the blood stream	Assimilation is the utilization of the products of digestion for production of energy or synthesis of cellular material.

Q:32 What is the difference between ingestion and digestion?

Ans:

Ingestion	Digestion
Taking in of complex food is called ingestion	Digestion is the breakdown of complex organic compounds of food into simpler diffusible molecules by the action of enzymes e.g. proteins (meat, fish, eggs etc.) into amino acids.

PAST PAPER QUESTINS

- Q:33** Differentiate between ingestion and egestion. (BWP 2016, LHR 2017)
- Q:34** Define assimilation. (LHR 2019)
- Q:35** Enlist steps involved in Holozonic nutrition? (SGD 2017, GRW 2019, FSD 2019)
- Q:36** Define digestion. (RWP 2017, MTN 2021)
- Q:37** Define digestion. Give its types. (GRW 2021)
- Q:38** Differentiate between Absorption and Assimilation. (MTN 2013, RWP 2019, SGD 2021, DGK 2022)

DIGESTION IN AMOEBIA

DIGESTION IN HYDRA

KIPS QUESTIONS

Q:39 Differentiate between intracellular and extra cellular digestion.

Ans:

INTRACELLULAR	EXTRACELLULAR
Breakdown of food occurs within the cells by the action of enzymes.	Enzymes are secreted outside the cell into the gut cavity or lumen where digestion takes place.
Amoeba shows complete intracellular digestion.	Humans show complete extracellular digestion.

PAST PAPER QUESTINS

- Q:40** Differentiate between intracellular and extracellular digestion. (LHR 2018, LHR 2021)
- Q:41** What are nematocysts? Write their role in ingestion. (MTN 2022)

DIGESTION IN PLANARIA

DIGESTION IN COCKROACH

PAST PAPER QUESTIONS

- Q:42** Why Tubular Digestive System is more efficient than Sac like Digestive System? (BWP 2017)
- Q:43** What is role of Crop and gizzard in cockroach? (SGD 2017)
- Q:44** Tubular digestive system is more efficient than sac like. Give reason. (LHR 2019)
- Q:45** Write the names of four parts of digestive system of cockroach? (DGK 2017, LHR 2022)

DIGESTION IN MAN

(Digestion in Oral Cavity)

KIPS QUESTIONS

- Q:46** What is the advantage of a digestive tract as compared with a digestive cavity?
Ans: The digestive tract is better adapted as compared to the digestive cavity. It is because digestive tract has different organs or parts where food is digested in different ways.
- Q:47** Name various parts of digestive tract where digestion occurs.
Ans: Digestion usually occurs in three main parts:
 (1) Oral cavity.
 (2) Stomach
 (3) Small intestine
- Q:48** State the names and location of various salivary glands in man.
Ans: There are three pairs of salivary glands in humans:
 • Parotid gland: In front of ears.
 • Submandibular glands: Behind the jaws.
 • Sublingual glands: Below the tongue
- Q:49** Write down at least two functions of oral cavity.
Ans:
 (1) Selection of food.
 (2) Mechanical digestion of food with help of teeth.
 (3) Hydrolysis of carbohydrates with help of saliva.
- Q:50** Give composition of saliva.
Ans: Saliva contains three important ingredients. i.e.
 (1) Water and mucus
 (2) Sodium bicarbonate and some other salts
 (3) Carbohydrate digesting enzymes: amylase or ptyalin.

PAST PAPER QUESTIONS

- Q:51** What are Hunger Pangs? Give their reason? (SGD 2017)
- Q:52** What are ingredients of human saliva? Give their role. (MTN 2017)
- Q:53** What is saliva? Give its composition? (DGK 2017)
- Q:54** Name the pH and composition of saliva. (RWP 2017)
- Q:55** What are hunger pangs? (LHR 2019)
- Q:56** Write only two functions of oral cavity. (LHR 2019)
- Q:57** Enlist various function of oral cavity. (LHR 2019, LHR 2021)
- Q:58** What is peristalsis and antiperistalsis? (SGD 2019, MTN 2021, FSD 2021)
- Q:59** What is Peristalsis? (MTN 2021)
- Q:60** What is hunger pangs and its cause? (MTN 2021)

- Q:61** Give composition of saliva and its effects. (MTN 2021)
Q:62 Give the composition of saliva. (DGK 2021)
Q:63 What is Swallowing? (SWL 2021)
Q:64 Give names of Salivary Glands with their location. (BWP 2021)
Q:65 Differentiate between peristalsis and antiperistalsis. (BWP 2017, LHR 2022)
Q:66 How our oral cavity selects food for further digestion? (LHR 2022)
Q:67 Give the name and position of salivary gland in man. (MTN 2022)
Q:68 Write down the names of any two salivary glands. Compare them. (SWL 2022)
Q:69 Name salivary glands and give ingredients of saliva. (BWP 2022)
Q:70 Write down ingredients of saliva. (SGD 2022)

DIGESTION IN STOMACH

KIPS QUESTIONS

Q:71 What is structure and function of cardiac sphincter?

Ans: **Structure:**

It is located at junction of stomach and oesophagus. It contains contractile ring of smooth muscles.

Function:

It prevents backflush of acidic chyme into oesophagus.

Q:72 Describe heart burn or pyrosis and its causes.

Ans. Heart burn or pyrosis is a painful burning sensation in the chest usually associated with the back flush of acidic chyme into the oesophagus.

Causes:

This is due to overeating, eating fatty food, lying down immediately after a meal, or consuming too much alcohol, caffeine or smoking.

Q:73 Give two ways by which pepsinogen is activated.

Ans: Pepsinogen is activated to pepsin when:

- (1) Exposed to the acidic medium
- (2) Exposed to some already activated pepsin.

PAST PAPER QUESTIONS

- Q:74** What is the location of gastric gland? Write the names of cells that constitute the gastric gland? (GRW 2017)
Q:75 What is heart burn or pyrosis? (LHR 2017)
Q:76 What is pyrosis? Write the cause. (FSD 2017)
Q:77 How the secretions of gastric juice are regulated? (SWL 2017)
Q:78 Enlist Gastric Glands with their secretion in man. (MTN 2017)
Q:79 How pepsinogen is activated? (RWP 2017)
Q:80 Differentiate between pepsin and pepsinogen. (LHR 2017)
Q:81 Enlist the enzymes of digestive juice of pancreas with their function. (LHR 2018)
Q:82 Differentiate between secretin and gastrin. (FSD 2019)
Q:83 Write a short note on pyrosis or heart burn. (GRW 2019)
Q:84 Write about three important ingredients of saliva. (LHR 2021)
Q:85 What is pyrosis? (GRW 2018, MTN 2021, GRW 2022, RWP 2022)
Q:86 What is heart burn and its causes? (DGK 2022)
Q:87 What is heart burn? (RWP 2017, SWL 2022)
Q:88 Give reasons for heartburn or pyrosis. (BWP 2022)

DIGESTION IN SMALL INTESTINE**KIPS QUESTIONS**

Q:89 What are functions of human liver?

Ans: Four important functions of the liver are to:

- (1) Produce bile that emulsifies fat.
- (2) Convert end products of digestion into other molecules.
- (3) Regulate components of blood.
- (4) Convert toxic substance, ammonia, which is a waste product of amino acid metabolism, to less toxic compound urea, which is then excreted by kidneys.

Q:90 Name the pancreatic enzymes and their functions.

Ans: Pancreatic enzymes are as follows:

- **Amylopsin:** It is carbohydrate digesting enzyme.
- **Trypsinogen:** It is protein digesting enzyme.
- **Lipase:** It is fat digesting enzyme.

What is chyme?

Ans: The muscles of stomach wall thoroughly mix up the food with gastric juice and convert it to a semi-solid mass called chyme.

Q:91 How does the problem of Gall stones develop?

Ans: Cholesterol, secreted by the liver, may precipitate in the gall bladder to produce gall stones.

PAST PAPER QUESTIONS

- Q:92** Differentiate between Chyme and Bolus? (RWP 2017)
- Q:93** How trypsinogen is activated? (LHR 2017)
- Q:94** Write the composition of pancreatic juice. (GRW 2017)
- Q:95** Enlist enzyme secreted from jejunum. (FSD 2017)
- Q:96** What are gall stones? Mention their effect. (MTN 2017)
- Q:97** How fatty acids and Glycerol are absorbed into blood? (MTN 2017)
- Q:98** Write the role of human pancreas in digestion. (LHR 2018)
- Q:99** Define villi. (GRW 2018)
- Q:100** What is bolus? (SGD 2019, FSD 2021)
- Q:101** What are the cause of jaundice and gall-stones in man? (DGK 2021)
- Q:102** Enlist enzymes secreted by jejunum. (DGK 2021)
- Q:103** Write the names and functions of any two pancreatic enzymes. (DGK 2022)
- Q:104** What any two digestive functions of liver. (FSD 2022)

DIGESTION IN LARGE INTESTINE & RECTUM**KIPS QUESTIONS**

Q:105 Can we get along without large intestine?

Ans: We cannot get along without large intestine because large intestine plays some important functions such as absorption of water and salts; and harbour bacteria which synthesize vitamins especially vitamin K.

PAST PAPER QUESTIONS

- Q:106** Give the role of large intestine of human. (GRW 2017)
- Q:107** Write some features of rectum. (DGK 2021)
- Q:108** Differentiate between appendix and appendicitis. (LHR 2017, BWP 2021, RWP 2021)

SOME COMMON DISEASES RELATED TO NUTRITION**KIPS QUESTIONS**

Q:109 Why do malnourished children usually have large abdomens?

Ans: Malnourished children get deficiency of proteins and accumulation of water which weaken and loosen the abdominal muscles. That is why malnourished children usually have large abdomens.

Q:110 What measures should be taken to avoid food poisoning?

Ans:

- Pasteurized milk should be used.
- Food should be cooked properly.
- Utensils should be washed.
- Hands should be washed before eating.
- All hygienic measure should be taken.

Q:111 What is botulism? Give its cause.

Ans: A severe form of food poisoning is botulism. This is caused by toxins produced by bacteria known as *Clostridium botulinum*.

Q:112 How an adipose tissue is formed?

Ans: Certain cells (adipose tissue) accumulate drops of fat in their cytoplasm. As these drops increase in size and number, they join together to form one large globule of fat in the middle of the cell, pushing the cytoplasm into thin layer and the nucleus to one side. Groups of fat cells form adipose tissue.

Q:113 Define Dyspepsia and give its reasons.

Ans: Definition:

Incomplete or imperfect digestion is called dyspepsia. This is not a disease itself but symptomatic to other disorders or diseases.

Reasons:

Dyspepsia may occur due to excessive acidity in stomach or faulty function of stomach and intestine or insufficient quality or quantity of bile secretion.

Q:114 How does appendicitis develop?

Ans: The appendix sometimes get inflamed due to entrapping of food and then putrefication of food causing appendicitis, which has to be removed surgically in many instances!

PAST PAPER QUESTIONS

Q:115 What is Dyspepsia? Give its two symptoms.

(DGK 2017)

Q:116 Define dyspepsia and also mention its characteristics.

(LHR 2017)

Q:117 What is obesity? Write reasons.

(FSD 2017)

Q:118 What is botulism? How is it caused?

(SWL 2017)

Q:119 What is Ulcer?

(MTN 2017)

Q:120 What is obesity? Give its harmful aspects.

(DGK 2017)

Q:121 What are the piles?

(LHR 2018)

Q:122 What are hemorrhoids?

(LHR 2019)

Q:123 What do you know about disease Dyspepsia?

(DGK 2021)

Q:124 What is botulism?

(RWP 2019, BWP 2021, SGD 2021))

Q:125 What is botulism; give its cause and symptoms.

(FSD 2021, SGD 2019)

Q:126 Define Dyspepsia, also give its symptoms.

(SWL 2021, MTN 2022)

Q:127 What is dyspepsia?

(GRW 2021, SWL 2022)

Q:128 What is ulcer? Write few lines on it.

(FSD 2022)

Q:129 How diarrhea and constipation are caused?

(LHR 2017, GRW 2022, RWP 2022)

Q:130 What is botulism? Give its cause.

(SGD 2022)