

BIOLOGY

LIFE PROCESSES

1. The raw materials for photosynthesis are

(A) CO₂ & O₂

(B) sunlight and CO₂

(C) water and chlorophyll

(D) CO₂ and water.

2. Most of the photosynthesis (80%) which takes place on this earth is carried out by

(A) green plants on land

(B) algae present in fresh water

(C) algae found in ocean

(D) algae present in ocean and fresh water sources.

ANS : D

3. Which of the following has no digestive enzyme ?

(A) Saliva

(B) Bile

(C) Gastric juice

(D) Intestinal juice

ANS : B

4. Plants are green in colour because

(A) they absorb green light only

(B) they reflect green light

(C) they absorb green light but reflect all other lights

(D) none of the above are correct.

ANS : B

5. Full name of NADP is

- (A) Nicotinamide dinucleotide phosphate (B) Nicotine adenine dinucleotide phosphate
(C) Nicotinamide adenine dinucleotide phosphate (D) None of the above

ANS : C

6. Wavelength of visible light is

- (A) 200 - 400 nm (B) 400 - 700 nm (C) 700 - 900 nm (D) 100 - 200 nm

ANS : B

7. The presence of sugar in onion leaves can be tested with

- (A) iodine (B) copper sulphate solution
(C) lime water (D) benedict's solution

ANS : D

8. Chemical reaction takes place during dark reaction of photosynthesis is

- (A) photolysis (B) hydrolysis
(C) carbon dioxide is bonded with RUBP (D) nitrogen fixation

ANS : C

9. Dark reaction and light reaction of photosynthesis takes place in

- (A) stroma and grana of chloroplast respectively (B) grana and stroma of chloroplast respectively
(C) grana only (D) stroma only

ANS : A

10. CO₂ acceptor during dark reaction of photosynthesis is

- (A) RUBP (B) PEP (C) NADPH (D) ATP

ANS : A

11. Compensation point refers to the intensity of light at which

- (A) Rate of respiration = rate of photosynthesis (B) Rate of respiration > rate of photosynthesis
(C) Rate of respiration < Rate of photosynthesis (D) None of the above is correct

ANS : A

12. Among the following which is a parasitic plant ?

- (A) Plasmodium (B) Cuscuta (C) Amoeba (D) Rhizobium

ANS : B

13. The nutrition in mucor is

- (A) parasitic (B) autotrophic (C) saprophytic (D) holozoic

ANS : C

14. In amoeba the digestion is intracellular because

- (A) amoeba is unicellular (B) amoeba is multicellular
(C) amoeba is found in pond (D) amoeba is microscopic animal

ANS : A

15. Digestion of food in human starts from

- (A) duodenum (B) small intestine (C) mouth (D) large intestine

ANS : C

16. The digestion of food is completed in the

- (A) ileum (B) duodenum (C) stomach (D) large intestine

ANS : A

17. The most important function of villi in the small intestine is
- (A) to provide strength to the intestine
 - (B) to provide space for capillaries and lacteals
 - (C) to provide increased surface area for absorption of digested food
 - (D) to provide habitat for bacteria

ANS : C

18. Which of the following sections does not contain enzymes ?
- (A) Bile
 - (B) Pancreatic juice
 - (C) Intestinal juice
 - (D) Saliva

ANS : A

19. Chewing is an example of
- (A) chemical digestion
 - (B) mechanical digestion
 - (C) involuntary action
 - (D) hydrolysis

ANS ; B

20. The final product of digestion of carbohydrates and proteins are
- (A) glycerol and amino acid respectively
 - (B) glucose and amino acids respectively
 - (C) amino acids and glycerol respectively
 - (D) amino acids and glucose respectively

ANS ; B

21. In amoeba the digestion of food is
- (A) extracellular
 - (B) intracellular
 - (C) intercellular
 - (D) none of the above

ANS : B

22. Through mastication of food is essential because
- (A) mastication of food makes the teeth stronger
 - (B) it makes the process of swallowing the food easier
 - (C) by this process bigger pieces of food are broken down into smaller pieces.
 - (D) bigger pieces of food are broken down into smaller pieces and saliva is properly mixed with it

ANS : D

23. The wave of contractions that pushes the food through the alimentary canal is called
- (A) peritoneum
 - (B) peristalsis
 - (C) cyclosis
 - (D) polarization

ANS : B

24. In amoeba absorption of the digested nutrients occurs in
- (A) contractile vacuole
 - (B) plasma membrane
 - (C) cytoplasm
 - (D) pseudopodia

ANS ; A

25. Coiled and well developed alimentary canal first developed in
- (A) Protozoans
 - (B) Mammals
 - (C) Arthropods
 - (D) Poriferans

ANS ; C

26. Digestion of starch starts from
- (A) stomach
 - (B) intestine
 - (C) esophagus
 - (D) mouth

ANS : D

27. The path taken by food material after ingestion is represented by

(A) Mouth → Pharynx → Oesophagus → Stomach

(B) Mouth → Pharynx → Oesophagus → Small Intestine

(C) Mouth → Oesophagus → Stomach → Pharynx

(D) Oesophagus → Mouth → Pharynx → Stomach

ANS : A

28. Teeth involved in cutting of food material are called

(A) canines (B) incisors (B) molars (D) premolars

ANS : B

29. Ptyalin enzyme is secreted by

(A) salivary glands (B) mouth (C) esophagus (D) stomach

ANS : A

30. Villi are present on

(A) stomach (B) large intestine (C) small intestine (D) mouth

ANS : C

31. Human beings are -

(A) Omnivorous (B) Herbivorous (C) Carnivorous (D) Autotrophic

ANS : A

32. Gastric juice is –

(A) Acidic (B) Alkaline (C) Neutral (D) Slightly alkaline

ANS : A

33. Bile is produced and secreted by –

- (A) Gall bladder (B) Pancreas (C) Spleen (D) Liver

ANS : D

34. The main function of intestinal villi is –

- (A) Stimulate Peristalsis (B) Prevent anitperistalsis
(C) Provide large surface area for absorption (D) Distribute digestive enzymes uniformly.

ANS : C

35. Major function of HCl of gastric juice is –

- (A) Providing acidic medium for pepsin (B) Kill microorganisms
(C) Dissolve food (D) Facilitate absorption of food

ANS : A

36. The end product of fat digestion is –

- (A) Glucose (B) Fatty acids and Glycerol
(C) Amino acids (D) Alkaloids

ANS : B

37. The action of bile can be called –

- (A) Oxidation (B) Emulsification (C) Esterification (D) Dehydrogenation

ANS : B

38. Saliva converts –

- (A) Proteins into amino acids. (B) Glycogen into glucose
(C) Starch into maltose (D) Fats into vitamins

ANS : C

39. Which set is mixed with the food in small intestine ?

- (A) Saliva, gastric juice, bile (B) Gastric juice, bile, pancreatic juice
(C) Bile, pancreatic juice, succus entericus (D) Bile, pancreatic juice and saliva

ANS : C

40. A good source of lipase is –

- (A) Saliva (B) Gastric juice (C) Bile (D) Pancreatic juice.

ANS : D

41. Ptyalin is an enzyme present in –

- (A) Gastric juice (B) Pancreatic juice (C) Intestinal juice (D) Saliva

ANS : D

42. Which one does not produce any digestive enzyme ?

- (A) Pancreas (B) Liver (C) Stomach (D) Duodenum

ANS : B

43. The number of salivary glands present in human beings is –

- (A) 5 pairs (B) 4 pairs (C) 3 pairs (D) 2 pairs

ANS : C

44. Largest gland in the body is –

- (A) Liver (B) pancreas (C) Gastric gland (D) Adrenal

ANS : A

45. Prorennin occurs in

- (A) Saliva (B) Gastric juice (C) Pancreatic juice (D) Intestinal juice

ANS : B

46. Enterokinase is found in

- (A) Saliva (B) Gastric juice (C) Pancreatic juice (D) Intestinal juice

ANS : D

47. HCl of gastric juice is produced by

- (A) Chief cells (B) Oxyntic cells (C) Goblet cells (D) Columnar cells

ANS : B

48. Bile is released by

- (A) Gastrin (B) Secretin (C) Cholecystokinin (D) Enterocrinin

ANS : C

49. The digestion of food starts in the mouth where starch is converted into sugar by the action of

- (A) Pepsin (B) Trypsin (C) Ptyalin (D) Surcease

ANS : C

50. Digestion is accomplished by a chemical process called

- (A) Condensation (B) Hydrolysis (C) Deamination (D) Transamination

ANS : B

51. Which of the following organs are not directly connected to each other ?

- (A) Oesophargus-stomach (B) Buccal cavity-stomach
(C) Colon-rectum (D) Stomach-duodenum

ANS : B

52. The major anion present in the pancreatic juice obtained through the stimulating of secretin is

- (A) Chloride (B) Bromide (C) Phosphate (D) Bicarbonate

ANS : D

53. Chylomicrons that enter the lacteals are composed of –

- (A) Triglycerides alone (B) Triglycerides around a protein core
(C) Protein coat around triglycerides (D) Proteins alone

ANS : C

54. Vitamin K is required for

(A) Change of prothrombin to thrombin

(B) Synthesis of prothrombin

(C) Change of fibrinogen to fibrin

(D) Formation of thrombonplastin

ANS : B

55. Leaf is made up of :

(A) Palisade cells

(B) Mesophyll cell

(C) Guard cell

(D) Parenchyma cell

ANS : B

56. Each stoma is guard by :

(A) Guard cell

(B) Palisade cell

(C) Mesophyll cell

(D) Parenchyma cell

ANS : A

57. Mesophyll consists of :

(A) Spongy parenchyma cell

(B) Palisade parenchyma cell

(C) Both (A) and (B)

(D) None of these

ANS : C

58. Xerophytes have :

(A) Stomata on both sides of leaf

(B) Stomata on one side of the leaf

(C) Sunken stomata

(D) No stomata

ANS : C

59. Stomata controls :

(A) The loss of food material from the plant

(B) The loss of water from the plant

(C) The loss of air from the plant

(D) The loss of energy from the plant

ANS : B

60. Each guard cells contain :

(A) Leucoplasts

(B) Chloroplasts

(C) Starch

(D) Oil and protein granules

ANS : B

61. Grana are present inside :

- (A) Mitochondria (B) Golgi bodies (C) Chloroplast (D) Ribosome

ANS : C

62. In dark, the guard cells are :

- (A) More turgid (B) Not turgid (C) Less turgid (D) None of these

ANS : B

63. In dicot plants, stomata are found in :

- (A) Lower and upper surface of the leaf (B) Lower surface of the leaf
(C) Tip of the leaf (D) Upper surface of the leaf

ANS : B

64. The shape of stomata in monocot plant is :

- (A) Kidney shape (B) Dumb-bell shape (C) Bean shape (D) Heart shape

ANS : B

65. In aquatic plant – *Hydrilla* stomata are :

- (A) Present on leaves (B) Present on stem (C) Present on roots (D) Absent

ANS : D

66. The following light wavelength is more effective in opening of stomata :

- (A) Green (B) Red (C) Blue (D) (B) and (C) both

ANS : D

67. In light phase of photosynthesis there is formation of –

- (A) ATP (B) NADPH₂
(C) Both ATP and NADPH₂ (D) Carbohydrates.

ANS : C

68. Photosynthesis proceeds in sequence of –

- (A) Dark phase and light phase (B) Light phase alone
(C) Light phase and dark phase (D) Dark phase alone

ANS ; C

69. The energy change in photosynthesis is from –

- (A) Light energy to electrical energy (B) Light energy to molecular energy
(C) Light energy to chemical energy (D) Light energy to activation energy.

ANS : C

70. Photosynthetic pigments are located in the chloroplast in –

- (A) Intrathylakoid space (B) Thylakoid membranes
(C) Intermembrane space (D) Inner membrane of envelope

ANS ; B

71. The oxygen in photosynthesis is released from –

- (A) CO₂ (B) H₂O (C) Carbohydrate (D) Chlorophyll

ANS : B

72. The process in which water is split during photosynthesis is –

- (A) Photolysis (B) Hydrolysis (C) Plasmolysis (D) Hemolysis

ANS : A

73. Dark reaction of photosynthesis occurs in –

- (A) Grana (B) Stroma (C) Matrix (D) Cytoplasm

ANS : B

74. In bacterial photosynthesis, the hydrogen donor is –

- (A) H_2O (B) H_2SO_4 (C) NH_3 (D) H_2S

ANS : D

75. The function of leaf in a plant is :

- (A) Respiration (B) Transpiration (C) Photosynthesis (D) All the above

ANS : D

76. Leaves are destarched by keeping the plant in :

- (A) 10-12 hours in night (B) 10-12 hours in day
(C) 2 hours in sun light (D) Only 2 hours in night

ANS : A

77. Covering with black strips should be tested for presence of :

- (A) Water in leaf (B) CO_2 in leaf (C) O_2 in leaf (D) Starch in leaf

ANS : D

78. The type of starch produced during photosynthesis is :

- (A) Polysaccharides (B) Monosaccharide (C) Oligosaccharides (D) None of these

ANS ; A

79. If the intensity of light is increased, the rater of photosynthesis :

- (A) Decreases into certain limit (B) Increases into certain limit
(C) Remain the same (D) Increase and decreases at regular at regular interval

ANS : B

(C) energy is not released at all

(D) energy is used up

ANS : B

86. Which of the following is the source of respiration –

(A) Stored food

(B) Fats

(C) Glucose

(D) Proteins

ANS : A

87. The form of energy used in respiration is –

(A) Chemical energy

(B) Electrical energy

(C) Mechanical energy

(D) Radiant energy

ANS : A

88. Respiratory structures in the insects are –

(A) Gills

(B) Skin

(C) Lungs

(D) Trachea

ANS : D

89. The narrowest and most numerous tubes of lungs are termed as –

(A) Bronchus

(B) Bronchioles

(C) Alveoli

(D) None of these

ANS ; B

90. A normal man respire in a minute –

(A) 10-15 times

(B) 14-18 times

(C) 20-25 times

(D) 5-30 times

ANS : B

91. In anaerobic respiration –

(A) O₂ is given out

(B) CO₂ is given out

(C) CO₂ is taken in

(D) O₂ is taken in

ANS : B

92. The exchange of gases [O₂ and CO₂] in a mammal takes place in –

(A) Trachea

(B) Bronchi

(C) Bronchioles

(D) Alveoli

ANS : D

93. During inspiration muscles of diaphragm –

- (A) Contracts (B) Expands (C) No effect (D) Coiled like string

ANS : A

94. Expiration involves –

- (A) Relaxation of diaphragm and intercostals muscles
(B) Contraction of diaphragm and intercostal muscles
(C) Contraction of diaphragm muscles
(D) Contraction of intercostals muscles

ANS : A

95. The structure which prevent the entry of food into respiratory tract is –

- (A) Pharynx (B) Larynx (C) Glottis (D) Epiglottis

ANS : D

96. In fever breathing rate –

- (A) Increase (B) Decrease (C) Stop (D) None

ANS : A

97. Mammalian lungs are –

- (A) Hollow (B) Solid and spongy (C) Spongy (D) None

ANS : B

98. Ratio of respiration is directly affected by –

- (A) CO₂ concentration (B) O₂ in trachea
(C) Concentration of C₂ (D) Diaphragm expansion

ANS : C

99. Oxygen in lungs ultimately reaches –

(A) Alveoli

(B) Trachea

(C) Bronchus

(D) Bronchioles

ANS : D

100. Most of the carbondioxide is carried in the blood as –

(A) Bicarbonates

(B) Carbon monoxide

(C) Carbonic acid

(D) Carbonates

ANS : A