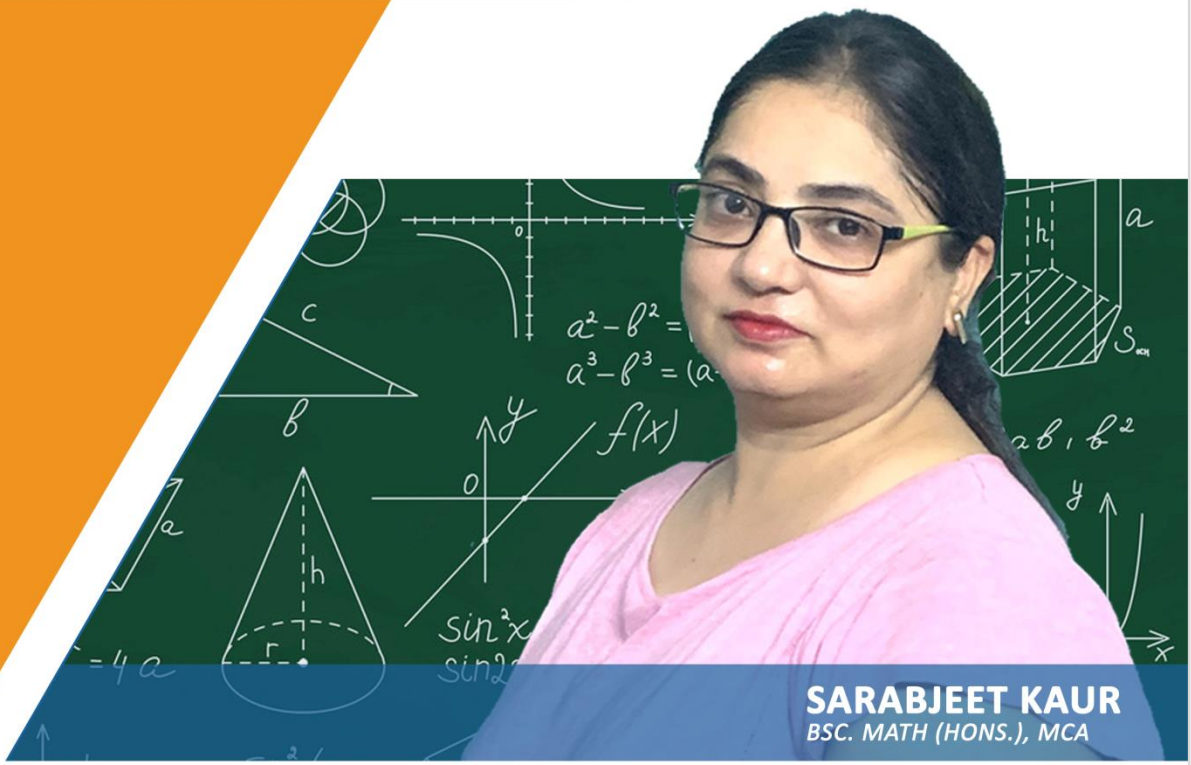
CAREER+ ACADEMY



SARABJEET KAUR
BSC. MATH (HONS.), MCA

GRADE 10TH SCIENCE

CHAPTER 6

LIFE PROCESSES

www.careerplusacademy.com careerplusacademy@gmail.com

/careerplusacademy /in/sarabkaur /careerplusacademy +91-987-111-5373

For Online Tutorials, Subscribe /careerplusacademy

6. LIFE PROCESSES

MULTIPLE CHOICE QUESTIONS

1. Life process that converts chemical energy into heat energy
   a) Nutrition
   b) Respiration
   c) Digestion
   d) Excretion
2. Energy rich foods are
   a) Carbohydrates and fats
   b) Proteins and mineral salts
   c) Vitamins and minerals
   d) Water and roughage
3. Pick out the incorrect statement
   a) Organisms grow with time
   b) Organisms must repair and maintain their structure
   c) Movement of molecules does not take place among cells
   d) Energy is essential for life processes
4. Loss of water from leaves will be less if stomata are
   a) Only on lower surface
   b) Only on upper surface
   c) On both the surfaces
   d) Scattered
5. Guard cells differ from epidermal cells in having
   a) Vacuoles
   b) Nucleus
   c) Mitochondria
   d) Chloroplasts
6. Transpiration occurs from
   a) Stomata
   b) Cuticle
   c) Both of these
   d) None of these

7. The process in which loss of water takes place in the form of water vapour through stomata is called
   a) Transportation
   b) Transpiration
   c) Guttation
   d) Translocation
8. The plant part that do not involve in exchange of gas is
   a) Leaf
   b) Flower
   c) Root
   d) Stem
9. Among the following group of plants, select the plant where you find stomata open at night and close by day time
   a) Epiphytes
   b) Succulents
   c) Mangroves
   d) Hydrophytes
10. The force of water absorption affected by opening and closing of stomata is
   a) Root pressure
   b) Transpiration pull
   c) Both of these
   d) None of these
11. The transport of water to upper parts of the plants during night is due to
   a) Root pressure
   b) Transpiration
   c) Translocation
   d) Leaf pressure
12. The stain that is generally used in preparing a temporary mount of a leaf put to show stomata is
   a) Safranin
   b) Hematoxylin
   c) Acetocarmine
   d) Eosin

13. The principal transpiring organ of a plant is
    a) Root
    b) Stem
    c) Flower
    d) Leaf
14. Transpiration helps in
    a) Temperature regulation
    b) Maintaining upward movement of water
    c) Wilting of leaves
    d) Both a and b
15. The mounting material used in the preparation of a leaf peel is
    a) Water
    b) Glycerine
    c) Wax
    d) None of these
16. The type of leaf to be selected while preparing a temporary mount of a leaf peel to show stomata is
    a) Turgid
    b) Flaccid
    c) Turbid
    d) Flattened
17. Opening of stomata is influenced more by
    a) Red light
    b) Green light
    c) Indigo light
    d) Blue light
18. Plant groups in which sunken stomata are generally found are
    a) Mesophytes
    b) Epiphytes
    c) Xerophytes
    d) Hydrophytes

19. Xerophytes have drought tolerance as compared to mesophytes because of

a) Thick cuticle

b) Sunken stomata

c) Very less transpiration

d) d) All of these

20. Given below are the steps to be followed for performing starch test on a green leaf

(i) Boil the leaf in alcohol

(ii) Boil the leaf in water

(iii) Dip the leaf in iodine solution

(iv) Wash the leaf in water

The correct sequences of steps are

a) (i), (iv), (ii), (iii

b) (ii), (iv), (i), (iii)

c) (ii), (i), (iv), (iii)

d) (iv), (i), (ii), (iii)

21. The part of leaf commonly used for preparing the slide of stomata is

a) Leaf margin

b) Leaf apex

c) Leaf epidermis

d) Leaf petiole

22. Woody plants carry gaseous exchange through

a) Root hair

b) Stem hair

c) Lenticels

d) Epidermal cells

23. Roots of the plants absorb water from the soil through the process of

a) Diffusion

b) Transpiration

c) Osmosis

d) None of these

24. A student wanted to decolourise a leaf. He should boil the leaf in

a) Alcohol

b) Water

c) KOH solution

d) Glycerine

25. Nuclei can be seen clearly seen in a well prepared slide of epidermal peel of a leaf in the

a) Guard cells only

b) Epidermal cells only

c) Guard cells as well as epidermal cells

d) Stomata, guard cells and epidermal cells

26. While preparing good temporary mount of leaf peel to observe stomata, care should be taken to avoid

a) Adding glycerine to the slide

b) Staining the peel with safranin

c) Having air bubbles in the slide

d) Using water to wash the slide

27. Photosynthesis takes place in the presence of

a) Water and sunlight

b) Oxygen and sunlight

c) CO_2, water and sunlight

d) CO_2 and O_2

28. Oxygen liberated during photosynthesis comes from

a) Water

b) Chlorophyll

c) Carbon dioxide

d) Glucose

29. Choose the event that does not occur in photosynthesis

a) Absorption of light energy by chlorophyll

b) Reduction of carbon dioxide to carbohydrates

c) Oxidation of carbon to carbon dioxide

d) Conversion of light energy to chemical energy

30. Chlorophyll is present in

a) Intrathylakoid space

b) Thylakoid membrane

c) Intermembrane space

d) Inner membrane of envelope

31. When temperature increases, the rate of photosynthesis

a) Increases

b) Decreases

c) First increases then decreases again

d) Remains the same

32. Before removing chlorophyll, the leaf is boiled in which one of the following solvent

a) Formalin

b) Water

c) Alcohol

d) Glycerine

33. The solution added to the leaf after boiling it in alcohol and then washing it with water is

a) Benedict's solution

b) Brine solution

c) I M sucrose solution

d) Iodine solution

34. Photosynthetic cells contain

a) Chlorophylls

b) Carotenoids

c) Xanthophylls

d) All of these

35. Find out the structure which is not present in chloroplast

a) Granum

b) Stroma

c) Cristae

d) Thylakoid

36. A leaf is boiled in alcohol before using iodine for starch test in order to

a) Dissolve starch

b) Dissolve chlorophyll

c) Soften the leaf

d) Make it react with iodine

37. In order to de-starch the leaves for an experiment to show that sunlight is necessary for photosynthesis

a) Leaves are kept in alcohol and boiled in a water bath

b) Leaves are soaked in iodine for two hours

c) Plant with the leaves is kept in a dark room for 24 hours

d) Plant with the leaves exposed to light of a lamp, a night before the experiment

38. Autotrophic organisms include

a) Bacteria and virus

b) Bacteria and fungi

c) Green plants and some bacteria

d) Green plants and all bacteria

39. Select the incorrect statement about the autotrophs

a) They synthesise carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll

b) They store carbohydrates in the form of starch

c) They convert carbon dioxide and water into carbohydrates in the absence of sunlight

d) They constitute the first trophic level

40. An example for autotrophic nutrition

a) Green plants

b) Fungi

c) Bacteria

d) Humans

41. The type of nutrition followed in organisms like Cuscuta, ticks, lice, leeches and tapeworm is

a) Saprotrophic

b) Parasitic

c) Autotrophic

d) Diffusion

42. The internal (cellular) energy reserve in autotrophs is

a) Glycogen

b) Protein

c) Starch

d) Fatty acid

43. Select the groups of organisms where food material is broken down outside the body and absorbed

a) Mushroom, green plants, amoeba

b) Yeast, mushroom, bread mould

c) Paramecium, amoeba, cuscuta

d) Cuscuta, lice, tapeworm

44. Select the correct statement

a) Heterotrophs do not synthesise their own food

b) Heterotrophs utilise solar energy for photosynthesis

c) Heterotrophs synthesise their own food

d) Heterotrophs are capable of converting carbon dioxide and water into carbohydrates

45. A few drops of iodine solution were added to rice water. The solution turned blue-black in colour. This indicated that rice water contains

a) Complex proteins

b) Simple proteins

c) Fats

d) Starch

46. The green colour of plants is due to the presence of

a) Chlorophyll

b) Carotene

c) Xanthophyll

d) Starch

47. In leaves, the food gets stored in the form of

a) Glucose

b) Fructose

c) Glycogen

d) Starch

48. Photosynthesis is a

a) Catabolic process

b) Parabolic process

c) Amphibolic process

d) Photochemical process

49. Select the appropriate equation which shows the summary of photosynthesis

a) $6CO_2 + 12H_2O \longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$

b) $6CO_2 + H_2O + \text{Sunlight} \longrightarrow C_6H_{12}O_6 + O_2 + 6H_2O$

c) $6CO_2 + 12H_2O + \text{Chlorophyll} + \text{Sunlight} \longrightarrow C_6H_{12}O_6 + 6O_2 + 6H_2O$

d) $6CO_2 + 12H_2O + \text{Chlorophyll} + \text{Sunlight} \longrightarrow C_6H_{12}O_6 + 6CO_2 + 6H_2O$

50. Materials like sucrose are transported into phloem by using energy from

a) ATP

b) NADP

c) ADP

d) Carbohydrates

51. The opening and closing of stomatal pore depends upon

a) Oxygen

b) Temperature

c) Water in guard cells

d) Concentration of CO_2 in stomata

52. The mode of nutrition in which an organism derives its food from the body of another living organism without killing it

a) Saprotrophic nutrition

b) Parasitic nutrition

c) Holozoic nutrition

d) Autrotrophic nutrition

53. The mode of nutrition found in fungi is

a) Saprotrophic nutrition

b) Parasitic nutrition

c) Holozoic nutrition

d) Autrotrophic nutrition

54. The organisms that absorbs nutrition with haustoria are

a) Carnivore

b) Herbivore

c) Parasite

d) Saprophyte

55. The food we eat gets converted into energy and stored in our body in the form of

a) Glucose

b) Glycogen

c) Glucagon

d) Starch

56. The process by which Amoeba obtains food is called

a) Phagocytosis

b) Assimilation

c) Diffusion

d) Absorption

57. Amoeba shows the following kind of nutrition

a) Autotrophic

b) Holozoic

c) Saprotrophic

d) Parasitic

58. Temporary finger like extension on amoeba are called

a) Cell membrane

b) Cilia

c) Pseudopodia

d) Cytopharynx

59. The process of taking food in the body is called as

a) Ingestion

b) Assimilation

c) Absorption

d) Digestion

60. The first enzyme to mix with food in the digestive tract is

a) Pepsin

b) Cellulase

c) Amylase

d) Trypsin

61. The part of the alimentary canal where food is finally digested

a) Stomach

b) Mouth cavity

c) Large intestine

d) Small intestine

62. Among the following, which is not considered as part of small intestine

a) Duodenum

b) Jejunum

c) Ileum

d) Rectum

63. Find out the correct sequence of parts in human alimentary canal

a) Mouth → Oesophagus → Stomach → Small intestine → Large intestine

b) Mouth → Stomach → Small intestine → Oesophagus → Large intestine

c) Mouth → Oesophagus → Stomach → Large intestine → Small intestine

d) Mouth → Stomach → Oesophagus → Small intestine → Large intestine

64. On seeing good food our mouth waters. This fluid is actually

a) Water

b) Hormone

c) Enzyme

d) None of the above

65. If salivary amylase is lacking the saliva, the events that get affected in the mouth cavity will be

a) Proteins breaking down into amino acids

b) Starch breaking down into sugars

c) Fats breaking down into fatty acids and glycerol

d) Absorption of vitamins

66. The inner lining of stomach is protected by one of the following from hydrochloric acid. Choose the correct one.

a) Pepsin

b) Mucus

c) Salivary amylase

d) Bile

67. Movement of food through oesophagus is due to
- **a)** Lubrication by saliva
- **b)** Peristalsis
- **c)** Gravitational pull
- **d)** All the above

68. The group of organisms which has the longest small intestine are
- **a)** Omnivores
- **b)** Carnivores
- **c)** Herbivores
- **d)** Autotrophs

69. Bile juice is produced in
- **a)** Gall bladder
- **b)** Blood
- **c)** Liver
- **d)** Spleen

70. Chyme is
- **a)** Digestive enzyme secreted by stomach
- **b)** Hormone secreted by islets of Pancreas
- **c)** Food which enters into intestine from stomach
- **d)** Part of bile juice which stores in gall bladder

71. The role of bile during digestion is
- **a)** Emulsification of fat
- **b)** Digestion of fat
- **c)** Absorption of fat
- **d)** Assimilation of fat

72. Proteins after digestion are converted into
- **a)** Carbohydrates
- **b)** Small globules
- **c)** Amino acids
- **d)** Starch

73. The element used in the synthesis of proteins is
- **a)** Hydrogen
- **b)** Oxygen
- **c)** Nitrogen
- **d)** Carbon dioxide

74. The part of an alimentary canal receives bile from the liver is

a) Stomach

b) Small intestine

c) Large intestine

d) Oesophagus

75. A gland not associated with the alimentary canal is

a) Liver

b) Salivary glands

c) Pancreas

d) Adrenal

76. The nutrient that are chiefly digested in the stomach are

a) Carbohydrates

b) Proteins

c) Fats

d) Lipids

77. The part of the digestive system where no digestion takes place is

a) Ileum

b) Stomach

c) Mouth

d) Oesophagus

78. The enzyme Pepsin is inactive in stomach without the presence of

a) Nitric acid

b) Hydrochloric acid

c) Acetic acid

d) Butyric acid

79. Villi present on the inner lining of the intestinal wall

a) Secretes enzymes for digestion

b) Secretes hormones

c) Decreases the surface area for absorption

d) Increases the surface area for absorption

80. Choose the function of pancreatic juice from the following

a) Trypsin digests proteins and lipase carbohydrates

b) Trypsin digests emulsified fats and lipase proteins

c) Trypsin and lipase digest fats

d) Trypsin digests proteins and lipase emulsified fats

81. Large intestine in man mainly carries out for

a) Absorption

b) Assimilation

c) Digestion of fats

d) Digestion of carbohydrates

82. The sphincter muscles that help in regulating the exit of food from stomach into the small intestine is

a) Pyloric sphincter

b) Ileocecal sphincter

c) Cardiac sphincter

d) Anal sphincter

83. The exit of unabsorbed food material is regulated by

a) Pyloric sphincter

b) Anus

c) Small intestine

d) Anal sphincter

84. The fermentation of glucose by yeast normally yields

a) Alcohol, CO_2 and 36 ATP

b) CO_2, H_2O and 36 ATP

c) Alcohol, CO_2 and 2 ATP

d) Lactic acid, CO_2 and 2 ATP

85. The organism that can live without oxygen of air is

a) Amoeba

b) Sheep

c) Yeast

d) Leech

86. When ATP is brokendown using water, energy is released which is equivalent to

a) 60.5 KJ/mol

b) 30.5 KJ/mol

c) 36.5 KJ/mol

d) None of these

87. Respiratory pigment in human body is
    a) Chlorophyll
    b) Water
    c) Blood
    d) Haemoglobin
88. Respiration is a process in which
    a) Energy is stored in the form of ATP
    b) Energy is released and stored in the form of ATP
    c) Energy is used up
    d) Energy is not released at all
89. A biochemical compound that readily combines with oxygen and distributes it throughout the human body is
    a) Water
    b) Urea
    c) Haemoglobin
    d) Acetylcholine
90. Pick out the metal that is associated with haemoglobin
    a) Aluminum
    b) Iron
    c) Potassium
    d) Calcium
91. The breakdown of pyruvate to give CO_2, water and energy takes place in
    a) Chloroplast
    b) Nucleus
    c) Mitochondria
    d) Cytoplasm
92. Products of anaerobic respiration in muscles are
    a) Lactic acid and energy
    b) Lactic acid, carbon dioxide and energy
    c) Lactic acid, water, carbon dioxide and energy
    d) Lactic acid, water and energy

93. During respiration exchange of gases take place in

a) Trachea an Larynx

b) Alveoli of Lungs

c) Alveoli and Throat

d) Throat and Larynx

94. During cellular respiration one molecule of glucose is first broken down into two molecules of

a) Acetic acid

b) Pyruvic acid

c) Lactic acid

d) None of the above

95. The correct sequence of anaerobic reactions in yeast is

a) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Ethanol + Carbon dioxide

b) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Lactic acid

c) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ Lactic acid

d) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ Ethanol + Carbon dioxide

96. Select the most appropriate sequence for aerobic respiration

a) Glucose $\xrightarrow{\text{Mitochondria}}$ Pyruvate $\xrightarrow{\text{Cytoplasm}}$ $CO_2 + H_2O + Energy$

b) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate $\xrightarrow{\text{Mitochondria}}$ $CO_2 + H_2O + Energy$

c) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate + Energy $\xrightarrow{\text{Mitochondria}}$ $CO_2 + H_2O$

d) Glucose $\xrightarrow{\text{Cytoplasm}}$ Pyruvate + Energy $\xrightarrow{\text{Mitochondria}}$ $CO_2 + H_2O + Energy$

97. Cell organelle in which respiration occurs is

a) Chloroplast

b) Mitochondria

c) Golgi body

d) Lysosome

98. Lack of oxygen in muscles often leads to cramps among cricketers. This results due to

a) Conversion of pyruvate to ethanol

b) Conversion of pyruvate to glucose

c) Non conversion of glucose to pyruvate

d) Conversion of pyruvate to lactic acid

99. During deficiency of oxygen in tissues of human beings, pyruvic acid is converted into lactic acid in the

a) Cytoplasm

b) Chloroplast

c) Mitochondria

d) Golgi body

100. A large quantity of one of the following is removed from our body by lungs

a) CO_2 and H_2O

b) CO_2 only

c) H_2O only

d) Ammonia

101. In respiration, air passes through

a) Pharynx → Nasal cavity → Larynx → Trachea → Bronchi → Bronchioles

b) Nasal cavity → Pharynx → Larynx → Trachea → Bronchi → Bronchioles

c) Larynx → Nasal cavity → Pharynx → Trachea

d) Larynx → Pharynx → Trachea → Lungs

102. Rings of cartilage present in the throat ensure that

a) Air is filtered

b) Air is at room temperature

c) Air passage does not collapse

d) Air is free of microbes

103. Select the statement that is true about respiration

(i) During inhalation, ribs move inward and diaphragm is raised

(ii) In the alveoli, exchange of gases takes place, (i.e.,) oxygen from alveolar air diffuses into blood and carbon dioxide from blood into alveolar air

(iii) Haemoglobin has greater affinity for carbon dioxide than oxygen

(iv) Alveoli increase surface area for exchange of gases

a) and (iv)

b) and (iii)

c) and (iii)

d) and (iv)

104. In normal expiration, the diaphragm is

a) Arched

b) Flattened

c) Perforated

d) None of the above

105. The seeds used to show that CO_2 is given out during respiration are

a) Dry seeds

b) Boiled seeds

c) Crushed seeds

d) Germinating seeds

106. During the respiration of germinating seeds, KOH is used to

a) Absorb carbon dioxide produced by the seeds

b) Absorb oxygen present in the flask

c) Absorb water vapour released by the seeds

d) Liberate oxygen to be used by the seeds

107. The chemical required to show that CO_2 gas is released during respiration is

a) Potassium bicarbonate

b) Potassium dichromate

c) Potassium permanganate

d) Potassium hydroxide

108. Normal blood pressure (Systolic / Diastolic) is

a) 120/80 mm of Hg

b) 160/80 mm of Hg

c) 120/60 mm of Hg

d) 180/80 mm of Hg

109. Blood pressure is measured by an instrument called

a) Barometer

b) Sphygmomanometer

c) Photometer

d) Manometer

110. When air is blown from mouth into a test tube containing lime water, the lime water turns milky due to the presence of

a) Oxygen

b) Carbon dioxide

c) Nitrogen

d) Water vapour

111. Among the following, which vertebrate group / groups heart does not pump oxygenated blood to different parts of the body

a) Pisces and Amphibians

b) Amphibians and Reptiles

c) Amphibians only

d) Pisces only

112. Single circulation (i.e.,) blood flows through the heart only once during one cycle of passage through the body, is exhibited by

a) Labeo, Chameleon, Salamander

b) Hippocampus, Exocoetus, Anabas

c) Hyla, Rana, Draco

d) Whale, Dolphin, Turtle

113. Find out the correct statement about heart

(i) Left atrium receives oxygenated blood from different parts of body while right atrium receives deoxygenated blood from lungs

(ii) Left ventricle pumps oxygenated blood to different body parts while right ventricle pumps deoxygenated blood to lungs

(iii) Left atrium transfers oxygenated blood to right ventricle which sends it to different body parts

(iv) Right atrium receives deoxygenated blood from different parts of the body while left ventricle pumps oxygenated blood to different parts of the body

a) (i)

b) (ii)

c) (ii) and (iv)

d) (i) and (iii)

114. Blood from the superior vena cava flows into

a) Right atrium

b) Right ventricle

c) Left atrium

d) Left ventricle

115. Right part of the human heart contains

a) Oxygenated blood

b) Mixed blood

c) Deoxygenated blood

d) No blood

116. The backflow of blood inside the heart during contraction will b prevented by

a) Valves in heart

b) Thick muscular walls of ventricles

c) Thin walls of atria

d) All of the above

117. One cell thick blood vessels are called

a) Arteries

b) Veins

c) Capillaries

d) Pulmonary artery

118. The vessels which carry blood away from heart to various organs of body

a) Veins

b) Arteries

c) Capillaries

d) Platelets

119. In a closed circulatory system, blood is completely enclosed within

a) Vessels

b) Heart

c) Skeleton

d) Sinuses

120. The correct pathway of blood in circulatory system is

a) Atria → Ventricles → Arteries → Veins

b) Ventricles → Atria → Veins → Arteries

c) Ventricles → Veins → Arteries → Atria

d) Veins → Ventricles → Atria → Arteries

121. The force that blood exerts against the wall of a vessel is called

a) Systolic pressure
b) Diastolic pressure
c) Blood pressure
d) None of these

122. **Tissue** fluid is also called as

a) Blood
b) Plasma
c) Lymph
d) Water

123. The blood leaving the tissues becomes richer in

a) Carbon dioxide
b) Water
c) Haemoglobin
d) Oxygen

124. The xylem in plants are responsible for

a) Transport of water
b) Transport of food
c) Transport of amino acids
d) Transport of oxygen

125. The kidneys in human beings are a part of the system for

a) Nutrition
b) Respiration
c) Excretion
d) Transportation

126. The dirty blood in our body gets filtered in

a) Lungs
b) Heart
c) Kidney
d) Ureter

127. Choose the correct path of urine in our body

a) Kidney → Ureter → Urethra → Urinary bladder

b) Kidney → Urinary bladder → Urethra → Ureter

c) Kidney → Ureter → Urinary bladder → Urethra

d) Urinary bladder → Kidney → Ureter → Urethra

128. The main function of the ureter is to

a) Control the pressure of urine in urinary bladder

b) Take urine from kidneys to urinary bladder

c) Filter blood and remove it to urine

d) Connect the parts of excretory system

129. The nutrient that is not selectively reabsorbed in nephron is

a) Glucose

b) Amino acids

c) Salts

d) Carbohydrates

130. The filtration units of kidneys are called

a) Ureter

b) Urethra

c) Neurons

d) Nephrons

131. Cell organelle that stores some waste material is

a) Chloroplast

b) Mitochondria

c) Vacuole

d) Nucleus

132. The largest amounts of nitrogen excreted from a mammalian body through

a) Breath

b) Sweat

c) Urine

d) Faeces

133. Artificial kidneys contain a number of tubes with a lining made of

a) Cell membrane

b) Capsule

c) Semi-permeable membrane

d) None of these

134. The process of an artificial kidney that is used to remove nitrogenous waste products from blood is called

a) Excretion

b) Dialysis

c) Filtration

d) Absorption

135. Choose the forms in which most plants absorb nitrogen

i) Proteins **ii)** Nitrates and Nitrites **iii)** Urea **iv)** Atmospheric nitrogen

a) (i) and (ii)

b) (ii) and (iii)

c) (iii) and (iv)

d) (i) and (iv)

136. If kidney fails to reabsorb water, the tissues would

a) Remain unaffected

b) Shrink to shrivel

c) Absorb water from blood

d) Take more oxygen from blood

137. After wound or cut in a body blood coagulates through

a) WBC

b) RBC

c) Platelets

d) Plasma

138. When blood is forced into the artery, wave like expansion takes place is called

a) Heart beat

b) Pulse

c) Flow

d) Ticking

139. The excretory organ present in earthworm through which excretion takes place

a) Moist Skin

b) Nephridia

c) Both A and B

d) Only B

In the following questions, the Assertion and Reason have been put forward. Read the statements carefully and choose the correct alternative from the following.

(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

(b) The Assertion and the Reason are correct but the Reason is not the correct explanation of the Assertion.

(c) Assertion is true but the Reason is false.

(d) The statement of the Assertion is false but the Reason is true.

140. Assertion: When air is passed through lime water, it turns milky

Reason : Air contains 78% nitrogen and 21% oxygen

141. Assertion: Veins have thin walls to collect blood from different organs

Reason : Blood in veins are not under pressure

142. Assertion: Human being has a complex respiratory system

Reason : Human skin is impermeable to gases

143. Assertion: All proteins in our food are digested in small intestine only

Reason : The protein digesting enzymes are released into small intestine

144. Assertion: Human heart does not allow mixing of oxygen rich blood with Carbon dioxide rich blood

Reason : Human heart has different chambers

145. Assertion: Plants lack excretory organs

Reason : Plants usually absorb essential nutrients

146. Assertion: In plants there is no need of specialized respiratory organs

Reason : Plants do not have great demands of gaseous exchange

147. Assertion: Aerobic respiration requires less energy as compared to anaerobic respiration

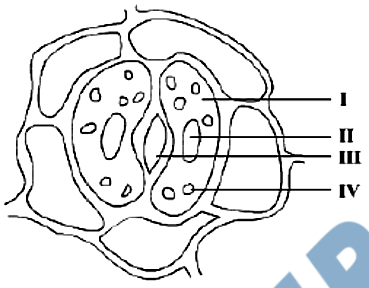
Reason : Mitochondria is the power of the cell

148. Assertion: In anaerobic respiration, one of the end product is alcohol

Reason : There is an incomplete breakdown of glucose

DIAGRAM BASED QUESTIONS:

149. In the following sketch of the stomatal apparatus, the parts **I**, **II**, **III** and **IV** were labeled differently. Find the correct labeling out of the following.



a) **(I)** Guard cell, **(II)** Stoma, **(III)** Starch granule, **(IV)** Nucleus

b) **(I)** Cytoplasm, **(II)** Nucleus, **(III)** Stoma, **(IV)** Chloroplast

c) **(I)** Guard cell, **(II)** Starch granule, **(III)** Nucleus, **(IV)** Stoma

d) **(I)** Cytoplasm, **(II)** Chloroplast, **(III)** Stoma, **(IV)** Nucleus

150. Find out the correctly focussed epidermal peel of leaf mounted under high power

a) I **b)** II **c)** III **d)** IV

151. In an experiment on photosynthesis, a portion of a leaf from de-starched potted plant was covered with opaque paper as shown below. "A" shows a leaf covered with red strip, "B" with green strip, "C" with blue strip and "D" with black strip. When the starch test was done on the leaves after 4 hours, the result showed no starch in

a) The portion covered with red, green and blue strips

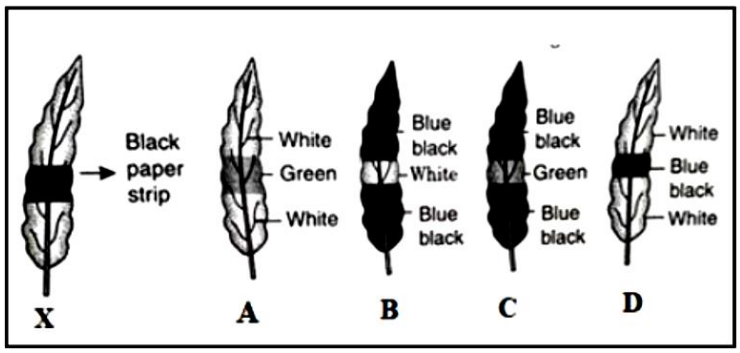
b) The portion covered with green strip

c) The portion covered with black and blue strips

d) Any of the covered portions

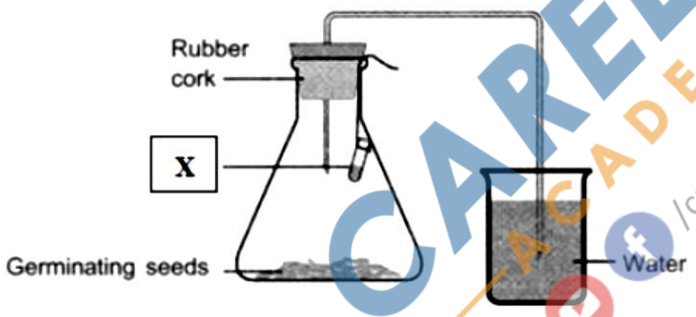
For Online Tutorials, Subscribe /careerplusacademy

152. A leaf from a de-starched plant is covered with black paper strip as shown below in X. Find the leaf which shows result after 8 hours of starch test



a) C **b)** D **c)** B **d)** A

153. Observe the given diagram and answer the following questions



(i) Find X. Where X is a small test tube suspended inside the flask during experiment contains

a) Water

b) Lime water

c) Brine water

d) Concentrated KOH solution

(ii) The water level rises in the bent tube because

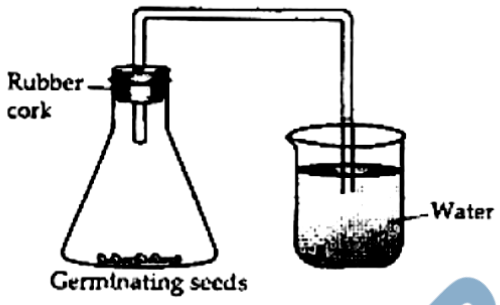
a) Germinating seeds consume all the oxygen and carbon dioxide

b) Germinating seeds consume oxygen and give out carbon dioxide which is absorbed by KOH

c) Carbon dioxide is given out by the germinating seeds

d) Seeds need water for germination

154. Find out the reason for not yielding the expected result from the diagram of experimental set-up given below which demonstrates that "CO_2 is given out during respiration"



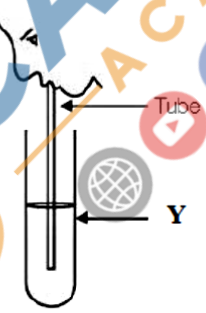
a) The flask was not airtight

b) There was no KOH in a test tube in the flask

c) The delivery tube was dipped in water

d) The germinating seeds were not immersed in water

155. Observe the given diagram and answer the following question



To test the release of CO2 gas during respiration, the chemical used in test tube (**Y**) is

a) Lime

b) Lime water

c) Calcium carbonate

d) Marble

156. At levels of atmospheric O_2 below 1%, the amount of CO_2 released is relatively high. This is probably because

a) The Krebs cycle is very active

b) O_2 is being converted to H_2O

c) Alcohol fermentation is occurring

d) Photosynthesis cannot function at night

157. Respiration occurs only in living cells like germinating seeds because

a) Living cells need ATP

b) Living cells have glucose

c) Living cells have O_2

d) All of these

158. Find an equation to represent aerobic respiration.

a) $C_6H_{12}O_6 + 6O_2 \longrightarrow 6CO_2 + 6H_2O + 38$ ATP

b) $C_6H_{12}O_6 + 2O_2 \longrightarrow 12CO_2 + 6H_2O + 32$ ATP

c) $C_6H_{12}O_6 + 12O_2 \longrightarrow 12CO_2 + 12H_2O + 30$ ATP

d) $2C_6H_{12}O_6 + 6O_2 \longrightarrow 6CO_2 + 6H_2O + 28$ ATP

159. At what time of the day do plants respire?

a) Plants respire only during night time

b) Plants respire all the time

c) Plants respire only during day time

d) Plants do only photosynthesis but not respiration

160. The material used to make connections of the set-up air-tight is

a) Vaseline **(b)** Oil **(c)** Wax **(d)** Glue

161. In plants, when the rate of photosynthesis equals the rate of respiration, it is called

a) Boiling point

b) Transpiration

c) Compensation point

d) Freezing point

162. Before setting up an experiment to show that seeds release carbon dioxide during respiration, the seeds should be

a) Dried completely

b) Boiled to make them soft

c) Soaked in vinegar

d) Kept moist till they germinate

163. Principal waste product of metabolism in humans is _____

164. _____ are the solid bodies in fruits in which waste is stored.

165. In _____, waste is removed by diffusion.

166. The thin double-walled sac enclosing the heart is called _____

167. _____ Node is present near the opening of superior and inferior vena cava.

168. _____ are the lymphatic capillaries arising from the small intestine.

169. Given one word for the following:

a) I am secreted from the walls of stomach. I kill all the harmful germs present in food and help my friend pepsin to work in acidic medium.

b) We are the biocatalysts. We enhance the rate of metabolic activities.

c) We push the food forward by rhythmic contraction.

d) Mechanism for moving the air in and out of the body.

e) Structure in plants to facilitate gaseous exchange.

f) Respiratory organ in aquatic organism.

170. The table below is designed to indicate the transport of certain substances in our body. Fill in the blanks with suitable answers.

S.NO	SUBSTANCE	FROM	TO
(i)	_____	Lungs	Whole body
(ii)	Carbon dioxide	_____	_____
(iii)	Urea	_____	_____
(iv)	Digested carbohydrates	Intestine	_____
(v)	_____	_____	Target organs
(vi)	Heat	_____	Whole body

171. Match the words of Column (A) with that of Column (B)

COLUMN (A)		COLUMN (B)	
a)	Phloem	(i)	Excretion
b)	Nephron	(ii)	Translocation of food
c)	Veins	(iii)	Clotting of blood
d)	Platelets	(iv)	Deoxygenated blood

172. Match Group (a) with Group (b)

GROUP (A)		GROUP (B)	
a)	Autotrophic nutrition	(i)	Leech
b)	Heterotrophic nutrition	(ii)	Paramecium
c)	Parasitic nutrition	(iii)	Deer
d)	Digestion in food vacuoles	(iv)	Green plant

173. Match the terms in Column (A) with those in Column (B)

COLUMN (A)		COLUMN (B)	
a)	Trypsin	**(i)**	Pancreas
b)	Amylase	**(ii)**	Liver
c)	Bile	**(iii)**	Gastric glands
d)	Pepsin	**(iv)**	Saliva

174. Match the animals in Column I with their respiratory organs in Column II

COLUMN I ANIMALS		COLUMN II RESPIRATORY ORGANS	
(i)	Fish	**a)**	Moist cuticle
(ii)	Birds	**b)**	Gills
(iii)	Aquatic Arthropods	**c)**	Lungs
(iv)	Earthworm	**d)**	Trachea

175. Match the terms in Column I with Column II

COLUMN I REGIONS OF DIGESTIVE SYSTEM		COLUMN II DIGESTIVE JUICES	
(i)	Mouth	**a)**	Pancreatic juice
(ii)	Stomach	**b)**	Intestinal juice
(iii)	Duodenum	**c)**	Gastric juice
(iv)	Small intestine	**d)**	Saliva

For Online Tutorials, Subscribe /careerplusacademy

ANSWERS

MULTIPLE CHOICE QUESTIONS

1.	b	2.	a	3.	c	4.	a	5.	d
6.	c	7.	b	8.	b	9.	b	10.	b
11.	a	12.	a	13.	d	14.	d	15.	b
16.	a	17.	d	18.	c	19.	d	20.	d
21.	c	22.	c	23.	c	24.	a	25.	c
26.	c	27.	c	28.	a	29.	c	30.	b
31.	c	32.	c	33.	d	34.	d	35.	c
36.	b	37.	c	38.	c	39.	c	40.	a
41.	b	42.	c	43.	b	44.	a	45.	d
46.	a	47.	d	48.	d	49.	c	50.	a
51.	c	52.	b	53.	a	54.	c	55.	b
56.	a	57.	b	58.	c	59.	a	60.	c
61.	d	62.	d	63.	a	64.	c	65.	b
66.	b	67.	b	68.	c	69.	c	70.	c
71.	a	72.	c	73.	c	74.	b	75.	d
76.	b	77.	d	78.	b	79.	d	80.	d
81.	a	82.	a	83.	d	84.	c	85.	c
86.	b	87.	d	88.	b	89.	c	90.	b
91.	c	92.	a	93.	b	94.	b	95.	d
96.	d	97.	b	98.	d	99.	a	100.	a
101.	b	102.	c	103.	d	104.	a	105.	d
106.	a	107.	d	108.	a	109.	b	110.	b
111.	d	112.	b	113.	c	114.	a	115.	c
116.	a	117.	c	118.	b	119.	b	120.	a
121.	c	122.	c	123.	a	124.	a	125.	c
126.	c	127.	c	128.	b	129.	d	130.	d
131.	c	132.	c	133.	c	134.	b	135.	b
136.	b	137.	c	138.	b	139.	c		

For Online Tutorials, Subscribe /careerplusacademy

ASSERTION AND REASONING

140.	b	141.	a	142.	b	143.	d	144.	a
145.	b	146.	a	147.	d	148.	a		

DIAGRAM BASED & MULTIPLE CHOICE QUESTIONS

149.	b	150.	c	151.	d	152.	c	153.	(i)	d	(ii)	b
154.	b	155.	b	156.	c	157.	d	158.	a		159.	b
160.	a	161.	c	162.	d							

ONE WORD ANSWERS

163.	Water	164.	Raphides	165.	Kidney	166.	Pericardium	167.	Sino-Auricular	168.	Lacteals

ONE WORD ANSWERS & MATCH THE FOLLOWING

169.		170.		171.		172.		173.		174.		175.	
a)	HCL	a)	Gills	a)	ii	a)	iv	a)	i	(i)	b	(i)	d
b)	Enzymes	b)	Oxygen	b)	i	b)	iii	b)	iv	(ii)	c	(ii)	c
c)	Peristalsis	c)	Whole Body, Lungs	c)	iv	c)	i	c)	ii	(iii)	d	(iii)	
d)	Breathing	d)	Liver, Kidney	d)	iii	d)	ii	d)	iii	(iv)	a	(iv)	b
e)	Stomata	e)	Liver, Endocrine Glands										
		f)	Tissues										