

DAV Public school Mahuda, Dhanbad.  
**Holiday homework for summer vacation**

**Class 10**

**Biology**

**Multiple Choice Questions**

- Which of the following statements about the autotrophs is incorrect?
  - They synthesise carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll
  - They store carbohydrates in the form of starch
  - They convert carbon dioxide and water into carbohydrates in the absence of sunlight
  - They constitute the first trophic level in food chains
- In which of the following groups of organisms, food material is broken down outside the body and absorbed?
  - Mushroom, green plants, *Amoeba*
  - Yeast, mushroom, bread mould
  - Paramecium*, *Amoeba*, *Cuscuta*
  - Cuscuta*, lice, tapeworm
- Select the correct statement
  - Heterotrophs do not synthesise their own food
  - Heterotrophs utilise solar energy for photosynthesis
  - Heterotrophs synthesise their own food
  - Heterotrophs are capable of converting carbon dioxide and water into carbohydrates
- Which is the correct sequence of parts in human alimentary canal?
  - Mouth → stomach → small intestine → oesophagus → large intestine
  - Mouth → oesophagus → stomach → large intestine → small intestine
  - Mouth → stomach → oesophagus → small intestine → large intestine
  - Mouth → oesophagus → stomach → small intestine → large intestine
- If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?
  - Proteins breaking down into amino acids
  - Starch breaking down into sugars
  - Fats breaking down into fatty acids and glycerol
  - Absorption of vitamins
- The inner lining of stomach is protected by one of the following from hydrochloric acid. Choose the correct one
  - Pepsin
  - Mucus
  - Salivary amylase
  - Bile
- Which part of alimentary canal receives bile from the liver?
  - Stomach
  - Small intestine
  - Large intestine

(d) Oesophagus

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

- (a) complex proteins
- (b) simple proteins
- (c) fats
- (d) starch

9. In which part of the alimentary canal food is finally digested?

- (a) Stomach
- (b) Mouth cavity
- (c) Large intestine
- (d) Small intestine

10. Choose the function of the 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

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

- (a) oxygen
- (b) carbon dioxide
- (c) nitrogen
- (d) water vapour

12. The correct sequence of anaerobic reactions in yeast is

- (a) Glucose + Pyruvate + Ethanol + Carbondioxide
- (b) Glucose + Pyruvate + Lactic acid
- (c) Glucose + Pyruvate + Lactic acid
- (d) Glucose + Pyruvate + Ethanol + Carbondioxide

13. Which of the following is most appropriate for aerobic respiration?

- (a) Glucose + Pyruvate + CO<sub>2</sub> + H<sub>2</sub>O + Energy
- (b) Glucose + Pyruvate + CO<sub>2</sub> + H<sub>2</sub>O + Energy
- (c) Glucose + Pyruvate + Energy + CO<sub>2</sub> + H<sub>2</sub>O
- (d) Glucose Pyruvate + Energy + CO<sub>2</sub> + H<sub>2</sub>O + Energy

14. Which of the following statement(s) is (are) 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) (i) and (iv)
- (b) (ii) and (iii)
- (c) (i) and (iii)
- (d) (ii) and (iv)

15. Which is the correct sequence of air passage during inhalation?

- (a) Nostrils → larynx → pharynx → trachea → lungs
- (b) Nasal passage → trachea → pharynx → larynx → alveoli
- (c) larynx → nostrils → pharynx → lungs
- (d) Nostrils → pharynx → larynx → trachea → alveoli

16. During respiration exchange of gases take place in

- (a) trachea and larynx
- (b) alveoli of lungs
- (c) alveoli and throat
- (d) throat and larynx

17. Oxygen liberated during photosynthesis comes from

- (a) water
- (b) chlorophyll
- (c) carbon dioxide
- (d) glucose

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

- (a) glycogen
- (b) protein
- (c) starch
- (d) fatty acid

19. Which of the following equations is the summary of photosynthesis? (a)  $6\text{CO}_2 + 12\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O}$

- (b)  $6\text{CO}_2 + \text{H}_2\text{O} + \text{Sunlight} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2 + 6\text{H}_2\text{O}$
- (c)  $6\text{CO}_2 + 12\text{H}_2\text{O} + \text{Chlorophyll} + \text{Sunlight} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O}$
- (d)  $6\text{CO}_2 + 12\text{H}_2\text{O} + \text{Chlorophyll} + \text{Sunlight} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{CO}_2 + 6\text{H}_2\text{O}$

20. 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

21. The opening and closing of the stomatal pore depends upon

- (a) oxygen
- (b) temperature
- (c) water in guard cells
- (d) concentration of  $\text{CO}_2$  in stomata

22. 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)

23. Which is the first enzyme to mix with food in the digestive tract?

- (a) Pepsin
- (b) Cellulase
- (c) Amylase
- (d) Trypsin

24. Which of the following statement(s) is (are) correct?

- (i) Pyruvate can be converted into ethanol and carbon dioxide by yeast
  - (ii) Fermentation takes place in aerobic bacteria
  - (iii) Fermentation takes place in mitochondria
  - (iv) Fermentation is a form of anaerobic respiration
- (a) (i) and (iii)
  - (b) (ii) and (iv)

(c) (i) and (iv)

(d) (ii) and (iii)

25. 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

26. 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

### Short Answer Questions

27. Name the following

- (a) The process in plants that links light energy with chemical energy
- (b) Organisms that can prepare their own food
- (c) The cell organelle where photosynthesis occurs
- (d) Cells that surround a stomatal pore
- (e) Organisms that cannot prepare their own food
- (f) An enzyme secreted from gastric glands in stomach that acts on proteins.

28. "All plants give out oxygen during day and carbon dioxide during night". Do you agree with this statement? Give reason.

29. How do the guard cells regulate opening and closing of stomatal pores?

30. Two green plants are kept separately in oxygen free containers, one in the dark and the other in continuous light. Which one will live longer? Give reasons.

31. If a plant is releasing carbon dioxide and taking in oxygen during the day, does it mean that there is no photosynthesis occurring? Justify your answer.

32. Why do fishes die when taken out of water?

33. Differentiate between an autotroph and a heterotroph.

34. Is 'nutrition' a necessity for an organism? Discuss.

35. Leaves of a healthy potted plant were coated with vaseline. Will this plant remain healthy for long? Give reasons for your answer.

36. How does aerobic respiration differ from anaerobic respiration?

37. What are the adaptations of leaf for photosynthesis?

38. Why is small intestine in herbivores longer than in carnivores?

39. What will happen if mucus is not secreted by the gastric glands?

40. What is the significance of emulsification of fats?

41. What causes movement of food inside the alimentary canal?

42. Why does absorption of digested food occur mainly in the small intestine?

43. Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms?

44. Mention the major events during photosynthesis

45. In each of the following situations what happens to the rate of photosynthesis?

- (a) Cloudy days
- (b) No rainfall in the area



10. I don't like people laughing at my follies
11. Have they ever denied you your rights?
12. How many languages can you speak?
13. Did anyone ask any question about me?
14. Who has sent this letter?
15. Who taught you English
16. Try this medicine
17. Will you teach us grammar next year
18. Somebody has broken two of mine dinner plates
19. Gavaskar could score century.
20. He was always losing temper
21. Had they been to Mysore before
22. The had been living a happy life for twenty years
23. What were you doing all the evening?
24. She used to take sleeping pills before going to bed
25. A new tanker was sent to the fields when the old one ran short of petrol.

#### Maths - Class X

1. Exercise 8.1, Exercise 8.2 and Exercise 8.3

#### Project work- All

1. To find zero of a linear polynomial graphically
2. To find two real zeroes of a quadratic polynomial graphically
3. To find the condition for the pair of linear equations representing a pair of intersecting lines, parallel lines and coincident lines

#### S.St

- .1. HISTORY-a) Learn ch -1.
- b). Write down in your class work copy about the congress session held from 1885 to 1946. Give proper detail like year, place and President of the different sessions.

#### 2. Civics-Learn ch 1

Economics:- Any five Goal of development of following

- 1) Small farmers
- 2) Landless farmers
- 3) Small scale manufacturers
- 4) Large farmers
- 5) Girl of a rich family
- 6) Students
- 7) Tribal of Narmada Valley
- 8) Tribal of Chotanagpur
- 9) Women
- 10) Daily wages workers

Geography:- Chapter 1:- Find out Any 50 questions with answers

ग्रीष्मावकाशार्थम् संस्कृतस्य गृहकार्याणि  
कक्षा- दशमी

- 1) पाठ - 3- (व्यायामः सर्वदा पथः ) - प्रश्न-उत्तर लिखें।
- 2) संधि (स्वर, व्यंजन, विसर्ग) - पाँच-पाँच उदाहरण लिखें।
- 3)परियोजना कायर्म् - व्यायामः सर्वदा पथ के ग्यारह श्लोकों को फाईल पेज में अन्वयः के साथ लिखें।

Sub - Hindi

Name of the book - KRITIK - 2 ( कृतिका - 2 )

Ch - 1 - Read the story and write Q.Ans. from 1 to 11.

Information Technology 402

Write all questions answers of chapter 1,2,3 and 4(part A)

ART

Make a bookmark using watercolour as a base.

Draw and shade a human face by using shading pencil

Health and physical education.

Summer vacation Assignment.

Std. VI to X

Explain all the 12 poses of suryanamaskara with sketch/pictures and also write its benefits.