

## CLASS 10

1. Write an essay on any of the following topic (350-400)
  - a. Mental health
  - b. Drug abuse
  - c. Molestation
2. Prepare a chart on;
  - a. Part of speech (A 1-10)
  - b. Tense (11- 20)
  - c. Punctuation uses chart(21-30)
  - d. Literary devices (B- 1-10)
  - e. Vocabulary chart (11-20)
  - f. Positive affirmations (21-30)

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  - f. Positive affirmations (21-30)

Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 9

Subject: Physics

Assignment

Make a mind map for following chapters –

1. Motion
2. Force and Laws of motion
3. Gravitation

Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 9

Subject: Physics

Assignment

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Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 11

Subject: Physics

Assignment

Prepare an investigatory report on any one of the following topics-

1. Motion in straight line
2. Motion in a plane
3. Laws of motion
4. Work, Energy and Power
5. System of particles and rotational motion
6. Gravitation

Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 11

Subject: Physics

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Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 12

Subject: Physics

Assignment

1. Solve the CBSE sample question paper. (File will be shared in the group)
2. Prepare an investigatory project report one of the topics from syllabus .

Kendriya Vidyalaya Pasighat

2023-24

Holiday HW for Autumn Break

Class: 12

Subject: Physics

Assignment

1. Solve the CBSE sample question paper. (File will be shared in the group)
2. Prepare an investigatory project report one of the topics from syllabus .



## BIOLOGY HOLIDAY HOMEWORK

Class XI Sc

### Multiple Choice Questions

Q1. Which metal ion is a constituent of chlorophyll?

(a) Iron (b) Copper (c) Magnesium (d) Zinc

Q2. Which pigment acts directly to convert light energy to chemical energy?

(a) Chlorophyll a (b) Chlorophyll b

(c) Xanthophyll (d) Carotenoid

Q3. Which range of wavelength (in nm) is called photosynthetically active radiation (PAR)?

(a) 100-390 (b) 390-430 (c) 400-700 (d) 760-10000

Q4. Which light range is least effective in photosynthesis?

(a) Blue (b) Green (c) Red (d) Violet

Q5. Chemosynthetic bacteria obtain energy from

(a) Sun (b) Infrared rays

(c) Organic substances (d) Inorganic chemicals

Q6. Energy required for ATP synthesis in PSII comes from

(a) Proton gradient (b) Electron gradient

(c) Reduction of glucose (d) Oxidation of glucose

Q7. During light reaction in photosynthesis, the following are formed

(a) ATP and sugar

(b) Hydrogen, O<sub>2</sub> and sugar

(c) ATP, hydrogen donor and O<sub>2</sub>

(d) ATP, hydrogen and O<sub>2</sub> donor

Q8. Dark reaction in photosynthesis is called so because

(a) It can occur in dark also

## BIOLOGY HOLIDAY HOMEWORK

Class XI Sc

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Q8. Dark reaction in photosynthesis is called so because

(a) It can occur in dark also

(b) It does not directly depend on light energy

(c) It cannot occur during day light

(d) It occurs more rapidly at night

Q9. PEP is primary CO<sub>2</sub> acceptor in

(a) C<sub>4</sub> plants

(b) C<sub>3</sub> plants

(c) C<sub>2</sub>-plants

(d) Both C<sub>3</sub> and C<sub>4</sub> plants

Q10. Splitting of water is associated with

(a) Photosystem I

(b) Lumen of thylakoid

(c) Both Photosystem I and II

(d) Inner surface of thylakoid membrane

Q11. The correct sequence of flow of electrons in the light reaction is

(a) PSII, plastoquinone, cytochromes, PSI, ferredoxin

(b) PSI, plastoquinone, cytochromes, PSII, ferredoxin

(c) PSI, ferredoxin, PSII

(d) PSI, plastoquinone, cytochromes, PSII, ferredoxin

Q12. The enzyme that is not found in a C<sub>3</sub> plant is

(a) RuBP Carboxylase

(b) PEP Carboxylase

(c) NADP reductase

(d) ATP synthase

Q13. The reaction that is responsible for the primary fixation CO<sub>2</sub> is catalysed by

(a) RuBP carboxylase

(b) PEP carboxylase

(c) RuBP carboxylase and PEP carboxylase

(d) PGA synthase

Q14. When CO<sub>2</sub> is added to PEP, the first stable product synthesised is

(a) Pyruvate

(b) Glyceraldehyde-3-phosphate

(c) Phosphoglycerate

(d) Oxaloacetate

Q15. Cyanobacteria and some other photosynthetic bacteria do not have chloroplasts. How do they conduct photosynthesis?

Q16. a. NADP reductase enzyme is located on \_\_\_\_\_.

b. Breakdown of proton gradient leads to release of \_\_\_\_\_.

Q17. Does moonlight support photosynthesis? Find out.

Q18. Some of these terms/chemicals are associated with the C<sub>4</sub> Explain.

a. Hatch and Slack pathway

b. Calvin cycle

c. PEP carboxylase

d. Bundle sheath cells

**Kendriya Vidyalaya, Pasighat**  
**Class X**  
**Science**  
**Autumn Break Homework**

1. Read the chapter Our Environment and write the notes in Biology notebook.
2. Solve the following questions in your Biology notebook

**MULTIPLE CHOICE QUESTIONS**

1. The constituents who do not form eco-system are  
(i) Biotic constituents  
(ii) Plastic bags  
(iii) Abiotic constituents  
(iv) All of these
2. The functional unit of the environment is  
(i) Ecosystem  
(ii) Nitrogen  
(iii) Carbon  
(iv) Oxygen
3. Which of the following is an example of producers?  
(i) Plastic pens  
(ii) Plastic cans  
(iii) Polythene  
(iv) Green plants

**FILL IN THE BLANKS**

4. The various level or stages in a food chain at which the transfer of food takes place is called---
5. -----is used as refrigerants and in fire extinguishers.
6. Two abiotic components of an environment are----and ----.

**ONE MARK QUESTIONS**

7. Give one example of aquatic food chain.
8. Why should biodegradable and non-biodegradable waste be discarded in two separate dustbins?
9. State a way to prevent the accumulation of harmful chemicals in our bodies.

**ASSERTIONS AND REASONS**

For the question numbers 10, 11 and 12, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- (a) Both A and R are true and R is the correct explanation of A.
  - (b) Both A and R are true but R is not the correct explanation of A.
  - (c) A is true but R is false.
  - (d) A is false but R is true.
10. Assertion: All green plants and blue-green algae can produce their food using abiotic and biotic components.  
Reason: Green plants capture 1% of sunlight and convert it into food energy.
  11. Assertion: Ozone (O<sub>3</sub>) layer is present at higher levels of the atmosphere.  
Reason: It is a deadly poison at ground level.
  12. Assertion: Only 10% of energy is transferred to the next trophic level. The remaining 90% of energy is Used in the life processes.  
Reason: Human activities lead to environmental problems such as the production of a huge amount of garbage.

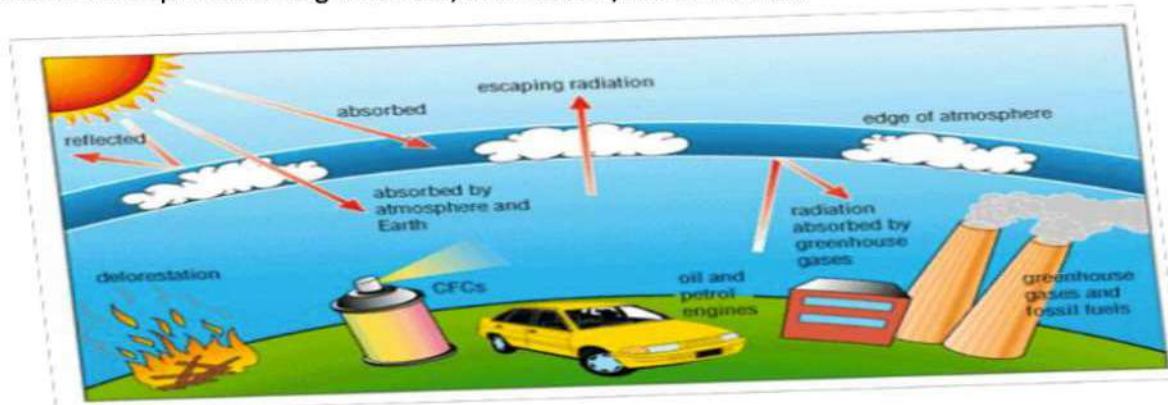
13. (a) 'Energy flow in the food chain is unidirectional'. Justify this statement.
- (b) Explain how pesticides enter the food chain and subsequently enter in our body.
14. (a) What is an ecosystem? List two main components of the ecosystem.
- (b) We don't clean ponds and lakes, but an aquarium needs to be cleaned regularly. Why?
15. Describe how decomposers facilitate recycling of matter to maintain balance in an ecosystem.
16. (a) In the following food chain, 100 J of energy is available to the lion. How much energy was available to the producer?  
Plants----- Deer -----Lion
- (b) List two reasons to show that the existence of decomposers is essential in an ecosystem.

### FIVE MARK QUESTIONS

17. Categorise any two activities performed by you as an eco-friendly person. Suggest any three eco-friendly activities which we should adopt in our day to day life.
18. (i) How do food chains get shortened?  
(ii) How does the shortening of the food chain affect the biosphere?  
(iii) How will you justify that vegetarian food habits give us more calories?  
(b) Carnivores cannot be self-dependent and have to depend on herbivores. Explain.
19. (a) Explain the phenomena of 'biological magnification'. How does it affect organisms belonging to different trophic levels, particularly to the tertiary consumers?  
(b) Mention the ecologically amplified elements that lead to a decline in the population of predator birds.
20. **CASE STUDY**

**Answer question numbers 20 (a) to 20 (d) based on your understanding of the following paragraph and the related studied concepts.**

High UV radiation breaks down oxygen into oxygen atoms. These oxygen atoms when combining with oxygen, they form ozone. The thickness of the ozone layer over Antarctica was found to be decreased in the year 1985. This is defined as ozone depletion. This is due to excessive use of chlorofluorocarbons in refrigerators, ACs, aerosols, etc. Thinning of ozone would allow penetration of Ultraviolet rays into the earth's atmosphere causing blindness, skin cancers, and mutations.



- (a) What is the function of ozone in the upper stratosphere?
- (b) Name the group of chemical compounds which adversely affect the ozone layer.
- (c) Write one negative effect of the affluent lifestyle of a few people of a society on the environment.
- (d) Write one effect of ozone on the ecosystem.