

## Class 11 B

### English Holiday Homework

1. Read the lessons:

- a) The Portrait of a Lady
- b) We are not afraid to die ...
- c) Discovering Tut

Write the meanings of the hard words in your Notebook and frame meaningful sentences.

2. Solve the PT 1 Question Paper in your Notebook

### PHYSICS

- ✓ Revise the content taught
- ✓ Practice numericals from NCERT and side books
- ✓ Solve the following questions on comment sheets and submit the work on the reopening day of school.

- 1) Why do we have different units for the same quantity?
- 2) The distance of a galaxy is of the order of  $10^{25}$  m. Calculate the order of the magnitude of the time taken by light to reach us from galaxy.
- 3) If the unit of force is 100 N, unit of length is 10 m and the unit of time is 100 s, what is the unit of mass in this system of units?
- 4) A new system of units is proposed in which unit of mass is  $\alpha$  kg, unit of length is  $\beta$  m and unit of time is  $\gamma$  sec. How much will be 5 J measured in this system?
- 5) How many astronomical units make one parsec?
- 6) A uniformly moving cricket ball is turned back by hitting it with a bat for a very short interval. Show the variation of its acceleration with time. ( take acceleration in backward direction as positive)
- 7) Give example of a motion where  $x > 0$ ,  $v < 0$ ,  $a > 0$  at a particular instant.
- 8) Derive equations of motion graphically and by using calculus.
- 9) State parallelogram law of vector addition. Find the magnitude and direction of the resultant of two vectors inclined at an angle  $\theta$  with each other. What happens when  $\theta = 0^\circ$  and  $90^\circ$ .
- 10) A railway car of mass 20 tonnes move with an initial speed of 54 km/h. On applying brakes, a constant negative acceleration of  $0.3 \text{ m/s}^2$  is produced.
  - a) What is the braking force acting on the car?
  - b) In what time will it stop?
  - c) What distance will be travelled by car before it finally stops?

## Chemistry Holiday Assignment

**Note: 1. Assignment is to be done on comment sheets**

**2. Learn the valencies of positive and negative (monatomic and polyatomic) ions. also learn how to write the chemical formula of various compounds.**

**3.. Learn the confirmatory test to be performed in the lab of various positive and negative ions**

### **Chapter -Some basic concepts of chemistry**

**Q1. Two students performed the same experiment separately and each one of them recorded two readings of mass which are given below. Correct reading of mass is 3.0 g. On the basis of given data, mark the correct option out of the following statements.**

Students	Readings	
	(i)	(ii)
A	3.01	2.99
B	3.05	2.95

**Results of both the students are neither accurate nor precise.**

**(b) Results of student A are both precise and accurate.**

**(c) Results of student B are neither precise nor accurate.**

**(d) Results of student B are both precise and accurate.**

**2. A measured temperature on Fahrenheit scale is 200°F. What will this reading be on Celsius scale?**

**(a) 40°C**

**(b) 94°C**

**(c) 93.3°C**

**(d) 30°C**

**3. What will be the molarity of a solution, which contains 5.85 g of NaCl(s) per 500 mL?**

**(a) 4 mol L<sup>-1</sup>**

**(b) 20 mol L<sup>-1</sup>**

**(c) 0.2 mol L<sup>-1</sup>**

**(d) 2 mol L<sup>-1</sup>**

**4. If 500 mL of a 5 M solution is diluted to 1500 mL, what will be the molarity of the solution obtained?**

**(a) 1.5 M**

- (b) 1.6 M
- (c) 0.017 M
- (d) 1.59 M

5. The number of atoms present in one mole of an element is equal to Avogadro number. Which of the following elements contains the greatest number of atoms?  
(a) 4gHe (b) 46gNa (c) 0.40 gCa (d) 12 g He

6. If the concentration of glucose ( $C_6H_{12}O_6$ ) in blood is  $0.9 \text{ g L}^{-1}$ , what will be the molarity of glucose in blood?  
(a) 5 M  
(b) 50 M  
(c) 0.005 M  
(d) 0.5 M

7. What will be the molality of the solution containing 18.25 g of HCl gas in 500 g of water?  
(a) 0.1 m (b) 1 M (c) 0.5 m (d) 1 m

8. One mole of any substance contains  $6.022 \times 10^{23}$  atoms/molecules. Number of molecules of  $H_2SO_4$  present in 100 mL of 0.02 M  $H_2SO_4$  solution is \_\_\_\_\_  
(a)  $12.044 \times 10^{20}$  molecules  
(b)  $6.022 \times 10^{23}$  molecules  
(c)  $1 \times 10^{23}$  molecules  
(d)  $12.044 \times 10^{23}$  molecules

9. What is the mass per cent of carbon in carbon dioxide?  
(a) 0.034%  
(b) 27.27%  
(c) 3.4%  
(d) 28.7%

10. The empirical formula and molecular mass of a compound are  $CH_2O$  and 180g respectively. What will be the molecular formula of the compound?  
(a)  $C_9H_{18}O_9$ ,  
(b)  $CH_2O$   
(c)  $C_6H_{12}O_6$   
(d)  $C_2H_4O_2$

11. If the density of a solution is  $3.12 \text{ g mL}^{-1}$ , the mass of 1.5 mL solution in significant figures is \_\_\_\_\_  
(a) 4.7 g  
(b)  $4680 \times 10^{-3} \text{ g}$

- (c) 4.680 g
- (d) 46.80 g

12. Which of the following statements about a compound is incorrect?

- (a) A molecule of a compound has atoms of different elements.
- (b) A compound cannot be separated into its constituent elements by physical methods of separation.
- (c) A compound retains the physical properties of its constituent elements.
- (d) The ratio of atoms of different elements in a compound is fixed.

13. Which of the following statements is correct about the reaction given below?



- (a) Total mass of iron and oxygen in reactants = total mass of iron and oxygen in product, therefore it follows law of conservation of mass.
- (b) Total mass of reactants = total mass of product; therefore, law of multiple proportions is followed.
- (c) Amount of  $\text{Fe}_2\text{O}_3$  can be increased by taking any one of the reactants (iron or oxygen) in excess.
- (d) Amount of  $\text{Fe}_2\text{O}_3$  produced will decrease if the amount of any one of the reactants (iron or oxygen) is taken in excess.

14. Which of the following reactions is not correct according to the law of conservation of mass?

- (a)  $2\text{Mg(s)} + \text{O}_2\text{(g)} \rightarrow 2\text{MgO(s)}$
- (b)  $\text{C}_3\text{H}_8\text{(g)} + \text{O}_2\text{(g)} \rightarrow \text{CO}_2\text{(g)} + \text{H}_2\text{O(g)}$
- (c)  $\text{P}_4\text{(s)} + 5\text{O}_2\text{(g)} \rightarrow \text{P}_4\text{O}_{10}\text{(s)}$
- (d)  $\text{CH}_4\text{(g)} + 2\text{O}_2\text{(g)} \rightarrow \text{CO}_2\text{(g)} + 2\text{H}_2\text{O(g)}$

15. Which of the following statements indicates that law of multiple proportions is being followed?

- (a) Sample of carbon dioxide taken from any source will always have carbon and oxygen in the ratio 1:2.
- (b) Carbon forms two oxides namely  $\text{CO}_2$  and  $\text{CO}$ , where masses of oxygen which combine with fixed mass of carbon are in the simple ratio 2:1.
- (c) When magnesium burns in oxygen, the amount of magnesium taken for the reaction is equal to the amount of magnesium in magnesium oxide formed.
- (d) At constant temperature and pressure 200 mL of hydrogen will combine with 100 mL oxygen to produce 200 mL of water vapour.

20(g)

### Short Answer Type Questions

**Q1. What will be the mass of one atom of C-12 in grams?**

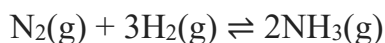
**Q2. What is the symbol for SI unit of mole? How is the mole defined?**

**Q3. What is the difference between molality and molarity?**

**Q4 If 4 g of NaOH dissolves in 36 g of H<sub>2</sub>O, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1 g mL<sup>-1</sup>).**

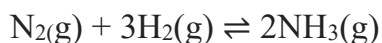
Q5 If 700 mL of H<sub>2</sub> at STP contains x molecules of it, how many molecules of O<sub>2</sub> are present in 700 mL of it at the same temperature and pressure?

Q6 nitrogen combines with dihydrogen according to the reaction.



What is the ratio in their volumes under similar conditions of temperature and pressure?

Q7 nitrogen combines with dihydrogen according to the reaction.



What is the ratio in their volumes under similar conditions of temperature and pressure?

Q8 What is the mass in gms of 11.2 L of N<sub>2</sub> at STP?

Q9 What is the mass of one molecule of sodium chloride?

Q10 How many total electrons are present in 1.4 g of nitrogen gas?

Q11. How many molecules of cane sugar (C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>) are present in 34.20 grams of it.

Q12 Calculate the mass of 0.1 moles of KNO<sub>3</sub>.

[At. wt. of K = 39, N = 14, O = 16]

Q13. What is the molarity of a solution of oxalic acid containing 0.63 g of it in 250 cm<sup>3</sup> of the solution?

Q14 One volume of a gaseous compound requires 2 volumes of O<sub>2</sub> for combustion and gives 2 volumes of CO<sub>2</sub> and 1 volume of N<sub>2</sub>. Determine the molecular formula of the compound.

Q15 How many molecules approximately do you expect to be present in a small crystal of sugar which weighs 10 mg?

Q16 Two containers of equal capacity A1 and A2 contain 10 g of oxygen (O<sub>2</sub>) and ozone (O<sub>3</sub>) respectively. Which of the two will have greater no. of O-atoms and which will give greater no. of molecules?

Q17 Assuming the density of water to be 1 g/cm<sup>3</sup>, calculate the volume occupied by one molecule of water.

Q18 Why atomic masses are the average values?

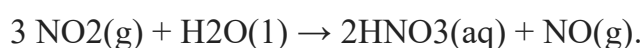
Q19 Four g carbon was heated with 8 g of sulfur. How much carbon disulfide (CS<sub>2</sub>) will be formed when the reaction is complete? What will be its percentage purity?

Q20. What is the molarity of a solution of oxalic acid containing 0.63 g of it in 250 cm<sup>3</sup> of the solution?

### Numerical Problems

#### Question 1.

In the commercial manufacture of nitric acid, how many moles of NO<sub>2</sub> produce 7.33 mol HNO<sub>3</sub> in the reaction



#### Question 2.

A sample of NaNO<sub>3</sub> weighing 0.83 g is placed in a 50.0 mL volumetric flask. The flask is then filled with water upon the etched mark. What is the molarity of the solution?

#### Question 3.

Potassium bromide, KBr, contains 32.9% by mass of potassium. If 6.40 g of bromine reacts with 3.60 g of potassium, calculate the number of moles of potassium that combine with bromine to form KBr.

#### Question 4.

Calculate the molarity of water in a sample of pure water.

#### Question 5.

How many molecules are there in 10.0 liters of a gas at a pressure of 75 cm at 27°C?

#### Question 6.

Two acids H<sub>2</sub>SO<sub>4</sub> and H<sub>3</sub>PO<sub>4</sub> are neutralized separately by the same amount of an alkali when sulfate and dihydrogen orthophosphate are formed respectively.

#### Question 7.

What weight of iodine is liberated from a solution of potassium iodide when 1 liter of Cl<sub>2</sub> gas at 10° C and 750 mm pressure is passed through it?

#### Question 8.

A crystalline salt on being rendered anhydrous loses 45.6% of its weight. The percentage composition of the anhydrous salt is Aluminium = 10.50%, Potassium = 15.1% Sulphur = 24.96%, Oxygen = 49.92%. Find the simplest formula of the anhydrous and crystalline salt.

#### Question 9.

An organic compound containing C, H, and O gave the following percentage composition: C = 40.687%.

H = 5.085% O = 54.228%

The vapor density of the compound is 59. Calculate the molecular formula of the compound.

Question 10.

Calculate the weight of iron which will be converted into its oxide ( $\text{Fe}_3\text{O}_4$ ) by the action of 18 g of steam on it

### Assertion and Reason Questions for Some Basic Concepts of Chemistry

Directions : Each of these questions contain two statements, Assertion and Reason. Each of these questions also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b), (c) and (d) given below.

- (a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.
- (b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion
- (c) Assertion is correct, reason is incorrect
- (d) Assertion is incorrect, reason is correct.

Q.1. **Assertion** : Equal moles of different substances contain same number of constituent particles.

**Reason** : Equal weights of different substances contain the same number of constituent particles.

Q.2. **Assertion** : 1.231 has three significant figures.

**Reason** : All numbers right to the decimal point are significant.

Q.3. **Assertion** : Volume of a gas is inversely proportional to the number of moles of gas.

**Reason** : The ratio by volume of gaseous reactants and products is in agreement with their mole ratio.

Q.4. **Assertion** : Significant figures for 0.200 is 3 whereas for 200 it is 1.

**Reason** : Zero at the end or right of a number are significant provided they are not on the right side of the decimal point.

Q.5. **Assertion** : One atomic mass unit is defined as one twelfth of the mass of one carbon – 12 atom.

**Reason :** Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as standard.

**Q.6. Assertion :** The empirical mass of ethene is half of its molecular mass.

**Reason :** The empirical formula represents the simplest whole number ratio of various atoms present in a compound.

**Q.7. Assertion:** The number of O atoms in 16 g of oxygen and 16 g of ozone is same.

**Reason:** Each of the species represent 1 g-atom of oxygen.

**Q.8. Assertion:** 1 mole of sulphuric acid contains 32 g each of sulphur and oxygen element.

**Reason:** 1 mole of sulphuric acid represents 98 g of the species.

**Q.9. Assertion:** 1 mole of  $\text{H}_2\text{SO}_4$  is neutralised by 2 moles of  $\text{NaOH}$  but 1 equivalent of  $\text{H}_2\text{SO}_4$  is neutralised by 1 equivalent of  $\text{NaOH}$ .

**Reason:** Equivalent wt. of  $\text{H}_2\text{SO}_4$  is half of its molecular wt. while equivalent wt. of  $\text{NaOH}$  is 40.

**Q.10. Assertion:** 1 Avogram is equal to 10 amu.

**Reason:** Avogram is reciprocal of Avogadro number.

**Q.11. Assertion:** The ash produced by burning  $\text{Mg}$  in air is lighter than the original mass of  $\text{Mg}$ .

**Reason:**  $\text{Mg}$  burns in air to produce  $\text{MgO}_2$  and  $\text{Mg}_3\text{N}_2$ .

**Q.12. Assertion:** Vapour density of sulphur vapour relative to oxygen is 2 because sulphur atom is twice as heavy as that of O atom.

**Reason:** Vapour density depends upon the molecular state of the substance in solid state.

**Q.13. Assertion:** Equal volumes of all the gases contain equal number of atoms.

**Reason:** Atom is the smallest particle which takes part in chemical reactions.

**Q.14. Assertion:** The ratio by volume of gaseous reactants and products is in agreement with their molar ratio.

**Reason:** Volume of a gas is inversely proportional to the number of moles of a gas.

**Q.15. Assertion:** One mole of  $\text{SO}_2$  contains double the number of molecules present in one mole of  $\text{O}_2$ .

**Reason:** Molecular weight of  $\text{SO}_2$  is double to that of  $\text{O}_2$ .

**Q.16. Assertion:** The compounds  $\text{NaCl}$  and  $\text{CaO}$  do not exist as discrete molecules.



**Reason:** For a substance that does not exist as discrete molecules, the formula weight and the molecular weight are identical.

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### **Subject-Yoga**

- 1.1 Yoga Etymology, Aim, objectives and misconception text.
- 1.2 Yoga, Origin History and development.
- 1.3 Rules and Regulations to be followed by Yoga practitioners.
- 1.4 Ashtanga Yoga

### **Subject-Hindi**

अभिव्यक्ति और मध्यम पुस्तक के पाठ दो 1-,'पत्रकारिता के विविध आयाम' की सहायता से एक परियोजना कार्य तैयार कीजिए। जिसमें पत्रकारिता के विविध आयाम जैसे- समाचार, संपादकीय, विचार टिप्पणी,संपादकीय, कार्टून कोना और रेखांकन और कार्टोग्राफी को समझाते हुए दैनिक समाचार पत्र में आए इन आयाम की कटिंग काटकर फाइल पेज में चिपका कर उसका विवरण भी दीजिए।

2-अभिव्यक्ति और मध्यम की कॉपी में हिंदी वर्णमाला सुंदर अक्षरों में लिखे। और हिंदी शब्दकोश मे आये शब्द इस वर्णमाला से कैसे भिन्न है समझिए।

3-ग्रीष्मकालीन अवकाश में यादगार दिन अथवा घटना को डायरी शैली में लिखें।

4-पढ़ाए गए पाठों के दिए गए प्रश्नों के उत्तर को कॉपी में लिखें।

### **Subject- Biology**

#### **Section A: 2-Mark Questions**

**Answer the following in brief.**

- 1. Differentiate between homosporous and heterosporous pteridophytes with one example each.
- 2. Why are bryophytes called “amphibians of the plant kingdom”?
- 3. Explain how gymnosperms are adapted to conserve water
- 4. • State any two economic uses of algae with suitable examples.

5. • Why can red algae survive at greater depths in the ocean compared to green algae?
- 

### ◇ Section B: 3-Mark Questions

**Answer the following in 60–80 words.**

6. Describe three adaptations of bryophytes that help them survive on land.
  7. Explain the significance of alternation of generations in pteridophytes.
  8. Compare the gametophyte and sporophyte generations in bryophytes and pteridophytes.
  9. Give three distinguishing features between dicot and monocot angiosperms.
  10. List three ecological roles or benefits of algae in aquatic ecosystems.
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### ◇ Section C: HOTS (Higher Order Thinking Skills)

**Think critically and answer.**

11. A pteridophyte shows both photosynthetic gametophyte and independent sporophyte. How does this feature reflect its evolutionary position?
  12. Explain how alternation of generations represents evolutionary progression from algae to angiosperms.
  13. A moss plant receives abundant water after a long dry period. Predict and explain the effect on its reproductive cycle.
  14. Gymnosperms can survive in cold, dry regions where angiosperms struggle. Justify this observation with two structural and one reproductive feature.
  15. How does pigment diversity in algae help reduce competition and promote survival in aquatic ecosystems?
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### **CASE STUDY QUESTIONS**

#### **Case Study 1**

**Passage:**

A group of students visited a damp forest area and observed small green plants growing on moist rocks and tree trunks. These plants had leaf-like structures arranged on a stem-like axis but no true roots. Upon microscopic observation, they noticed flagellated sperm cells and a capsule releasing spores.

**Questions:**

1. Identify the group of plants observed.
2. Explain why these plants are restricted to moist environments.
3. Name the generation that is dominant in these plants and justify your answer.
4. Describe the role of water in their reproductive cycle.
5. Differentiate between the sporophyte and gametophyte in these plants.

### **Case Study 2:**

#### **Passage:**

A biology teacher presented a specimen of a fern to her students. The lower surface of the leaflets had brown, spore-containing structures. The teacher explained that this plant shows a clear alternation of generations and both generations are independent for a time.

#### **Questions:**

1. Name the group of plants the fern belongs to.
2. What are the brown structures called, and what is their function?
3. Describe the gametophyte of a fern.
4. How is the alternation of generations in ferns more advanced than in bryophytes?
5. What makes pteridophytes the first true vascular plants?

### **Case Study 3:**

#### **Passage:**

Two different plant samples were studied under a microscope. One had a dominant gametophyte and required water for fertilization. The other had a dominant sporophyte, vascular tissues, and produced two types of spores.

#### **Questions:**

1. Identify the two plant groups being compared.
  2. What do both groups have in common regarding reproduction?
  3. Which group shows more evolutionary advancement and why?
  4. Define heterospory. Which of the two plant groups exhibits it?
  5. Why is the dominance of sporophyte considered an evolutionary advancement?
- Top of Form

**CASE 1.** Kingdom Protista includes all unicellular eukaryotic microorganisms (except some unicellular algae *e.g.*, *Chlamydomonas*, *Chlorella* etc., fungi *e.g.*, yeasts, and animals, which are placed in their respective kingdoms alongwith their closely related multicellular organisms). They are predominantly water dwelling, however, some live in the bodies of animals as parasites. Unicellular protists are broadly classified as – photosynthetic protists, slime moulds and protozoan protists.

**Based on your understanding of the above paragraph and related studied concepts, answer question numbers 1 to 4.**

1. What are protozoans ? Give one example each of free living and parasitic forms.
2. What are slime moulds ?
3. What is meant by nuclear dimorphism ?
4. What is diatomaceous earth ? Write its economic importance.

**CASE 2.** Biological classification is the scientific ordering of organisms (bacteria, protists, fungi, plants and animals) in a hierarchical series of groups on the basis of their relationships – morphological, evolutionary and others. Our vedic literature reveals 750 plants and 250 animals. Later, different scientists proposed artificial system of classification, natural classification and then phylogenetic classification. Based on available knowledge, two kingdom classification was proposed. Recent discoveries led R.H. Whittaker to propose 5-kingdom classification in 1969.

**Based on your understanding of the above paragraph and related studied concepts, answer question numbers 5 to 8.**

5. In the five kingdom classification, which kingdom includes blue-green algae, nitrogen-fixing bacteria and methanogenic archae-bacteria ?
6. What is the criteria of including blue-green algae, nitrogen fixing bacteria and methanogenic archaeobacteria in single kingdom ?
7. List factors on which 5-kingdom classification is based.
8. Give reasons why fungi should not be included in plant kingdom.

**CASE 3.** Many micro-organisms, *e.g.*, bacteria are economically important as these are commercially used by man for many purposes. The beneficial uses of bacteria include their use in food production, in agriculture, sewage disposal, in various industries as well as in the preparation of vitamins, enzymes, antibiotics, serum and vaccines.

**Based on your understanding of the above paragraph and related studied concepts, answer question numbers 9 to 12.**

9. Name atleast two bacteria which are used in sewage disposal.
10. Name the bacteria which are used in the preparation of curd from pasteurized milk.

**CASE 1.** Protists are mostly aquatic unicellular microorganisms found in the sea, fresh water and in moist soil. Some are inhabited in the bodies of animals as parasites. Most of the protists live on the surface of water bodies in the form of planktons. Some protists are known to form colonies of similar but largely independent cells. Reproduction in these occurs by asexual and sexual means.

**Based on your understanding of the above paragraph and related studied concepts, answer question numbers 1 to 4.**

**1. Which of the following planktonic forms grow in abundance over the sea surface that makes the sea appears red and cause “red tide” ?**

- (a) *Glenodinium*                      (b) *Peridinium*                      (c) *Gonyaulax*                      (d) *Gymnodium*

**2. Which of the following dinoflagellates are phosphorescent and make the sea surface glow in the dark ?**

- (a) *Noctiluca*                      (b) *Gonyaulax*                      (c) *Pyrocystis*                      (d) All of these



**For Question No. 3 and 4, we have given two statements each, one labelled Assertion (A) and the other labelled Reason (R).**

**Select the correct answer to the following questions from the codes (a), (b), (c) and (d) as given below :**

- (a) Both A and R are true and R is correct explanation of the assertion.
- (b) Both A and R are true but R is not the correct explanation of the assertion.
- (c) A is true but R is false.
- (d) A is false but R is true.

**3. Assertion.** Slime moulds are commonly called fungus animals.

**Reason.** They cause fungal infections on the skin in humans.

**4. Assertion.** Dinoflagellates are photosynthetic protists.

**Reason.** They synthesize their own food from  $\text{CO}_2$  and  $\text{H}_2\text{O}$  with the help of photosynthetic pigments making use of sunlight.

**CASE 2.** Protozoan protists include zoo- flagellates, sarcodines, sporozoans and ciliates. In the earlier two-kingdom classification, all these organisms of four phyla belonged to classes in the phylum-Protozoa of animal kingdom. Each group has characteristic features.

**Based on your understanding of the above paragraph and related studied concepts, answer question numbers 5 to 8.**

**5. Large fossil sedimentary deposits of diatomite (diatomaceous earth) are used**

- (a) as cleaning agents in tooth pastes
- (b) as insulating material in refrigerators and furnaces
- (c) in paints for enhancing night visibility
- (d) All of these

**6. The mode of nutrition in *Euglena* is**

- (a) Mixotrophic
- (b) Holozoic
- (c) Saprobic
- (d) None of these

**For Question No. 7 and 8, we have given two statements each, one labelled Assertion (A) and the other labelled Reason (R).**

**Select the correct answer to the following questions from the codes (a), (b), (c) and (d) as given below :**

- (a) Both A and R are true and R is correct explanation of the assertion.
- (b) Both A and R are true but R is not the correct explanation of the assertion.
- (c) A is true but R is false.
- (d) A is false but R is true.

**7. Assertion.** Slime moulds live upon decaying organic matter.

**Reason.** In such organisms, individuals capture, ingest, digest and assimilate food.

**8. Assertion.** Mode of nutrition is mixotrophic in *Euglena*.

**Reason.** They lead both holophytic as well as saprobic mode of nutrition.