

Class X- Biology

Life Process

Assignment 1(a)

- Q.1 a) What are the raw material used during photosynthesis. Explain the role of each material.
b) Write chemical equation for photosynthesis.
- Q.2 a) State the three events that occur during the process of photosynthesis.
b) Draw a labelled diagram of stomata. Explain the role of it in this process.
- Q.3 Explain the process of nutrition in amoeba.
- Q.4 State the difference between
i) autotrophic nutrition and heterotrophic nutrition
ii) Respiration and photosynthesis
iii) Aerobic and anaerobic respiration
- Q.5 When do the desert plant take up CO_2 and perform photosynthesis. Give two examples of desert plant.
- Q.6 Name the acid present in the following
a) Tomato b) Vinegar c) Tammarind

Assignment 1b

- Q.1 In human alimentary canal, name the site of complete digestion of various component of food. Explain the process of digestion.
- Q.2 a) Why do herbivores have longer small intestine than carnivore?
b) What is the role of HCL in our stomach
c) What is emulsification of fats?
d) Which protein digesting enzyme present in pancreatic juice?
- Q.3 a) Draw a labelled diagram of human heart.
b) State the functions of the following component of transport system.
i) blood ii) lymph

- Q.4 Draw a diagram of human excretory system. State in brief the function of each. How is urine produced and eliminated?
- Q.5 List the three kinds of blood vessels of human circulatory system and write their functions.
- Q.6 In mammals and birds why is it necessary to separate oxygenated and deoxygenated blood?

Assignment- 2

- Q.1 Define Reproduction? What is the important of reproduction? State difference between asexual and sexual reproduction.
- Q.2 Illustrate the following with the help of suitable diagram.
- i) Binary fission in Amoeba
 - ii) budding in Hydra
 - iii) Regeneration in Planaria
 - iv) Multiple fission in plasmodium
 - v) Spore formation in Rhizopus
- Q.3 Write the full form of DNA. Name the part of the cell where it is located. Explain its role in the process of reproduction of the cell.
- Q.4 Why is the offspring of asexual reproduction are clone?
- Q.5 Name largest cell present in the human body.

Assignment for Class X

Maths

- Q.1 Use Euclid's division algorithm to find the HCF of:
- i) 135 and 225
 - ii) 196 and 38220
 - iii) 867 and 255
- Q.2 Show that any positive odd integers is of the form $6q + 1$, $6q + 3$ or $6q + 5$, where q is some integer.
- Q.3 Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composite numbers.
- Q.4 Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the co-efficients.
- i) $x^2 - 2x - 8$
 - ii) $4s^2 - 4s + 1$
 - iii) $6x^2 - 3 - 7x$
 - iv) $4u^2 + 8u$

v) $t^2 - 15$

vi) $3x^2 - x - 4$

Q.5 Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes:

i) $\frac{1}{4}, -1$

ii) $\sqrt{3}, \frac{1}{3}$

iii) $0, \sqrt{5}$

iv) $1, 1$

v) $-\frac{1}{4}, \frac{1}{4}$

vi) $4, 1$

Q.6 Divide the polynomial $p(x)$ by the polynomial $g(x)$ and find the quotient and remainder in each of the following:

i) $p(x) = x^3 - 3x^2 + 5x - 3, g(x) = x^2 - 2$

ii) $p(x) = x^4 - 3x^2 + 4x + 5, g(x) = x^2 + 1 - x$

iii) $p(x) = x^4 - 5x + 6, g(x) = 2 - x^2$

Q.7 On comparing the ratios $\frac{a_1}{a_2}, \frac{b_1}{b_2}$ and $\frac{c_1}{c_2}$ the following pairs of linear equations intersect at a point, are parallel or coincident.

i) $5x - 4y + 8 = 0$

$7x + 6y - 9 = 0$

ii) $9x + 3y + 12 = 0$

$18x + 6y + 24 = 0$

iii) $6x - 3y + 10 = 0$

$2x - y + 9 = 0$

Q.8 On comparing the ratios $\frac{a_1}{a_2}, \frac{b_1}{b_2}$ and $\frac{c_1}{c_2}$ Find out whether the following pair of linear equations are consistent or inconsistent.

i) $3x + 2y = 5; \quad 2x - 3y = 7$

ii) $2x - 3y = 8; \quad 4x - 6y = 9$

iii) $\frac{3}{2}x + \frac{5}{3}y = 7; \quad 9x - 10y = 14$

iv) $5x - 3y = 11; \quad -10x + 6y = -22$

v) $\frac{4}{3}x + 2y = 8; \quad 2x + 3y = 12$

Q.9 Solve the following pair of linear equations by the substitution method.

i) $x + y = 14$

$$x - y = 4$$

ii) $s - t = 3$

$$\frac{s}{3} + \frac{t}{2} = 6$$

iii) $3x - y = 3$

$$9x - 3y = 9$$

iv) $0.2x + 0.3y = 1.3$

$$0.4x + 0.5y = 2.3$$

v) $\sqrt{2}x + \sqrt{3}y = 0$

$$\sqrt{3}x - \sqrt{8}y = 0$$

vi) $\frac{3x}{2} - \frac{5y}{3} = -2$

$$\frac{x}{3} + \frac{y}{2} = \frac{13}{6}$$

Q.10 For which values of a and b does the following pair of linear equations have an infinite number of solutions?

$$2x + 37 = 7$$

$$(a - b)x + (a + b)y = 3a + b - 2$$

Home Assignment Arts

Q.1 Make a list of the various Chief Ministers of Manipur along with their details.

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Geography Class 10

Q.1 Draw an outline map of India, locate and label the following features with appropriate symbol?

i) Chapter 3, Water Resources

Dams a) Hirakud b) Tungabhadra c) Tehri d) Salal

ii) Chapter 4

a) Largest producer of sugarcane, Tea and Coffee

b) Major areas of rice and wheat

iii) Chapter 5 Minerals and energy resources

a) Kudremukh, Bellary, Durg, Bokaso, Raniganj, Digboi, Ankaleshwar, Kalol, Naharkatia

b) Power plants- Namrup, Narora, Tarapur, Kalpakkan, Singrauli

iv) Chapter 6: Manufacturing Industries

a) Cotton textile Industries

Indore, Surat, Coimbatore, Kanpur

b) Iron and Steel plants

Durgapur, Jamshedpur, Bhilai, Salem

c) Software Technology Parks:-

Noida, Gandhinagar, Pune, Bengaluru, Mumbai, Chennai, Thiruvananthapuram

v) Chapter 7: Lifelines of National Economy

a) Major ports: Kandla, Marzazeo, Kochi, Tuticorei, Vishakhapatnam, Paradip, Haldia

b) International Airports-

Amritsar(Raja Sansi), Hyderabad(Rajiv Gandhi) Chennai (Meenam Bakkam),
Mumbai(Chhatrapati Shi)

Q.2 Read the text given below and answer the following questions-

Manufacturing industries not only help in modernising agriculture, which forms the backbone of our economy, they also reduce the heavy dependence of people on agricultural income by providing them jobs in secondary and tertiary sectors. Industrial development is a pre-condition for eradication of unemployment and poverty from our country. This was the main philosophy behind the public sector industries and Joint Sectors Industries ventures in India. It was also aimed at bringing down regional disparities by establishing industries in tribal and backward areas. Export of manufactured goods expand trade and commerce, and bring in much needed foreign exchange. Countries that transform their raw materials into a wide variety of finished goods of higher value are prosperous. India's prosperity lies in increasing and diversifying its manufacturing industries as quickly as possible. Agriculture and industries are not exclusive of each other. They move hand in hand. For instance, the agro-industries in India have given a major boost to agriculture by raising its productivity.

Answer the following MCQ by choosing the most appropriate option-

i) Manufacturing Industries fell in _____ and agriculture in _____.

- a) Primary, Secondary Sector
- b) Secondary, Tertiary Sector
- c) Primary, Tertiary Sector
- d) Secondary, Primary Sector

ii) Manufacturing provides job opportunities to reduce dependence on agriculture, Identify which sector the following jobs belong to-

Jobs created by manufacturing Industries	Sector
a) Garment Production	1) Primary
b) Research and Development	2) Tertiary
c) Banking	3) Secondary
d) Mining	4) Quaternary

Choose the correct answer

- A. a-1, b-2, c-3, d-4
- B. a-3, b-4, c-2, d-1
- C. a-2, b-3, c-1, d-2
- D. a-4, b-1, c-4, d-3

iii) Which of the following options does not help in modernising agriculture?

- A. Manufacturing farm equipment
- B. Providing unskilled labour force
- C. Supplying fertilizers and pesticides
- D. Producing tube well pumps and sprinklers.

iv) In order to attract foreign manufacturing firms, a country needs to develop-

- A. Agrarian facilities
- B. Cultivable lands
- C. Media facilities

D. Infrastructure facilities

- Q.3 Suggest 5 steps to conserve and preserve the water resources in India.
- Q.4 How is the issue of sustainability important for development? Explain with examples.

Class X

Subject- Economics

- Q.1 Explain the consequences the world face if non-renewable resources get exhausted in the world?
- Q.2 If the national income of a country is Rs 567888000 and the per capita income is Rs 2000. Find the population of the country.
- Q.3 Study the data given in the table and answer the following questions

Some Comparative Data on Punjab, Kerala and Bihar

State	Infant Mortality Rate Per 1000 (2003)	Literacy Rate (%) 2001	Net Attendance Ratio for Class I-V (1995-96)
Punjab	49	70	81
Kerala	11	91	91
Bihar	60	41	41

1. Which State has the lowest infant mortality rate?
2. Why does this state have the lowest infant mortality rate in comparison to other state?
3. What is Net Attendance ratio?

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Home Assignment

Class X Physics

Chapter 10 - Light-Reflection and Refraction

- Q1. Draw neat and beautiful diagram of Figure 10.2 (a) and (b). Name the figures.
- Q2. Make a table and write all the image formation by convex mirror (write table 10.2 page 167) and draw neat ray diagram (a and b figure 10.8 page 167) for the image formation of convex mirror.
- Q3. Make a table and write all the image formation by concave mirror (write the table 10.1 page 164) and draw neat ray diagram (a to f figure 10.7 page 166) for the image formation by the concave mirror.
- Q4. Draw figure 10.3 (a) and (b)
- Q5. Draw figure 10.4 (a) and (b)
- Q6. Draw figure 10.5 (a) and (b)
- Q7. Draw figure 10.6 (a) and (b)
- Q8. Why do we prefer a convex mirror as a rear-view mirror in vehicles?
- Q9. A convex mirror used for rear-view on an automobile has a radius of curvature of 3 m. If a bus is located at 5 m from this mirror, find the position, nature and size of the image.

**SUMMER VACATION ASSIGNMENT
INFORMATION TECHNOLOGY (IT)
CLASS-X**

Unit 6 – Web Applications (Basics)

Q1 – Fill in the blanks:

- a) The option in Microsoft Windows XP used for helping users with physical disabilities and to reduce repetitive strain is _____.
- b) Sound Sentry is designed to help users with _____ impairments.
- c) The High Contrast option in Microsoft Windows XP is designed to assist people with _____ impairments.
- d) _____ is designed to assist people that have difficulty using a keyboard or a mouse.
- e) _____ is designed to help users with auditory impairments.

Q2 – What is the definition of networking?

Q3 – Explain the different types of Network Architectures?

Q4 – What are the advantages of networking?

Q5 – What are the different types of networking?

Q6 – Explain the four types of network topology.

Q7 – State any 03 rules and etiquettes to be followed while chatting on the Internet.

Q8 – Write the step to create a google or yahoo mail account.

Q9 – Explain the purpose of an offline blog editor.

Q10 - Explain the purpose of online transactions.

Q11 – Write the step to perform an online transaction using Flipkart.

Q12 –Write any 5 best practices for internet security.

Q13 – What are the functions of an antivirus software?

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Assignment
For the Summer Vacation
Class X Science
(Chemistry)

Q.1 What is the cause of displacement reaction? 1

Q.2 Why are decomposition reaction called opposite of combination reaction? Write equation for these reactions. 2

Q.3 What is the difference between displacement reaction and double displacement reaction? Write equation for these reactions. 2

Q.4 Identify the oxidised substance and reduced substance in the following reaction 2



Q.5 Write the balanced chemical equations of the following chemical reactions. 3

i) Sodium Sulphate + Barium Chloride \longrightarrow Barium Sulphate + Sodium Chloride

ii) Sodium hydroxide + Sulphuric acid \longrightarrow Sodium Sulphate + Water

iii) Aluminium + Ferric oxide \longrightarrow Aluminium oxide + Iron
