



St. Mary's School, Dwarka
Holiday Homework
Class: X
Worksheet 4

General Instructions:

- 1) The work should be done neatly and systematically.
- 2) The given questions are to be done in your respective subject notebooks.
- 3) Attempt all questions

Subject: English

No. of questions: 10

M.M. 25

SECTION A- READING (5 marks)

Q1. Read the following passage

Russian explorers and fur hunters arrived on the Aleutian Islands more than two hundred years ago. It is a volcanic archipelago in the North Pacific. They found a landmass that was farther to the north. This land mass Alyeska is referred to as the 'Great Land' by the native inhabitants of the island. In 1959, Alaska joined the United States of America as a forty-ninth state, which is one-fifth the size of the mainland 48 states combined. It shared both the longest river system in North America and half the coastline of the United States with Canada. The rivers that exist in the Gulf of Alaska and North America are cold and nutrient rich. It supports millions of birds and about 400 species of fish, shellfish, molluscs and crustaceans. These advantages elevated Alaska's commercial fisheries into some of the largest in the world.

Based on the report of Alaska Department of Fish and Game in 2000, Alaska's commercial fisheries landed thousands of tonnes of herring and shellfish, and about million tonnes of groundfish. Salmon is considered to be the true cultural heart and soul of Alaska. The salmon enabled the native culture to flourish and helped to feed bears, eagles and other animals and the soil itself. If Alaska was an independent nation, then it would have become the largest producer of wild salmon in the world.

Catching salmon has not always been healthy. In 1953, Alaska was declared a federal disaster area because overfishing of salmon became severe between 1940 and 1949. When it achieved the status of statehood, the State of Alaska managed its own fisheries with the guidance of the state constitution. During that time, the harvest rate was about 25 million salmon. After a few decades, average catches have steadily increased as a consequence of sustainable management policy. During the 1990's, annual harvests were about more than 100 million, and on some occasions, it had raised over 200 million fish.

Based on your understanding of the passage, attempt the questions given below.

(1x5=5)

- i. Evaluate the **MOST APPROPRIATE** reason why Alaska's commercial fisheries are the largest in the world. (1)
- a) It supports a variety of fish, shellfish, molluscs and crustaceans.
 - b) The rivers that exist in the Gulf of Alaska and North America are clean.
 - c) The weather in Alaska is favourable for the water animals.
 - d) Fishermen toil hard to catch fish even in the harshest weather.
- ii. What did the native inhabitants of the island refer to the '**landmass**' mentioned in the above passage? (paragraph 1) (1)
- iii. Why was Salmon given so much importance in Alaska? (1)
- iv. Overfishing of salmon became severe between 1940 and 1949. What was the consequence? (1)
- a) The state of Alaska managed its own fisheries.
 - b) The harvest rate was about 25 million salmon
 - c) Alaska was declared a federal disaster area.
 - d) Average catches of salmon increased steadily.
- v. Find a word from the passage which means the same as '**move to a higher place or position**'. (1)

Q2. You are Raman/Ritu residing at 233, Sam Apartments, Paschim Vihar, New Delhi. The residents of your apartments are disturbed by the menace created by the stray dogs in your locality. Write a letter to the Editor of a newspaper highlighting the aforementioned issue in 120-150 words. (3)

Q3. Attempt the given exercises as directed.

(1/2x4=2)

- i. Read the following conversations and complete the sentences in reported speech. (1/2)

Mahesh: What have you prepared for dinner today?

Deepa: I am yet to prepare some vegetable stew and rice.

Mahesh asked Deepa what _____. Deepa replied that she was yet to prepare some vegetable stew and rice.

- ii. Arun: I will be participating in the Inter-School debate next month. (1/2)

Aman: That's great!

Arun told Aman that _____.

- iii. Identify the error in the given sentence. (1/2)

The Sahara is the hotter desert in the world with one of the harshest climates.

| Error | Correction |
|-------|------------|
| | |

iv. Choose the correct option:

(1/2)

Rina said to me, "Have you seen my notebook?"

- a) Rina asked me had I seen her notebook.
- b) Rina asked me if I saw her notebook.
- c) Rina asked me whether I had seen her notebook.
- d) Rina said to me whether I had seen her notebook.

Q4. Attempt the given exercises as directed.

(1/2x4=2)

i. The courier _____ at the recipient's address by ten in the morning if dispatched today.

(1/2)

- a. will arrive
- b. arrives
- c. had arrived
- d. can arrive

ii. Use the appropriate word to complete the sentence:

(1/2)

By the time the chief guest arrived, the students _____ (complete) their rehearsals.

iii. Identify and correct the error in the sentence:

(1/2)

The scenic beauty of these mountains are unparalleled in the region.

ERROR: _____

CORRECTION: _____

iv. Complete the narration of the conversation between a manager and an employee:

(1/2)

Manager: Why haven't you submitted your report yet?

Employee: I have been swamped with urgent client meetings.

The manager questioned the employee regarding the delay in submitting the report. The employee explained that _____.

Q5. Read the following stanza and answer the questions that follow:

(1/2x4=2)

i. In "What, what is he to do?", the poet's repetition of "what" emphasizes the boy's:

- a) excitement
- b) helplessness and panic
- c) curiosity
- d) boredom

ii. The contrast between "Merrily bouncing" and finding the ball "in the water" chiefly serves to illustrate the:

- a) boy's laughter turning to tears
- b) movement of the harbour waves
- c) sudden shift from joy to loss
- d) colour changes in the scene

iii. The line “No use to say ‘O there are other balls’” suggests that the boy’s grief is:

- a) trivial and short-lived
- b) exaggerated for effect
- c) unique and irreplaceable
- d) soothed by alternatives

iv. By describing the boy “staring down / All his young days into the harbour,” the poet implies that the loss of the ball causes the boy to:

- a) reflect on his entire childhood up to that moment
- b) imagine swimming after it
- c) plan to retrieve it later
- d) feel joy at the sparkling water

Answer the questions in about 50 words.

(2x3=6)

Q6. What makes you think that Hari Singh was an experienced thief?

Q7. What mystery did the narrator face after landing safely? What do you think helped him to survive?

Q8. What qualities made Mandela an effective leader in the fight against apartheid?

Answer the question in about 80 words.

(3)

Q9. How do the seagull’s parents demonstrate “tough love,” and why is it effective?

Q10. Narrate a short story featuring a wild animal of your choice as the main character in its natural habitat using the tool Animate from Audio.

(2)

Subject: Hindi

No. of questions: 10

M.M. 25

प्रश्न 1 निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर उचित विकल्प चुनकर दीजिए: (1×5=5)

स्वावलंबन और आत्मनिर्भरता दोनों का वास्तविक अर्थ एक ही है। वह अर्थ है अपना अवलंब अर्थात् आश्रय या सहायता आप बनना, किसी दूसरे पर बोझ न बनकर या निर्भर अर्थात् आश्रित न रहकर अपने-आप पर निर्भर या आश्रित रहना। इस प्रकार दोनों शब्द परावलंबन या पराश्रिता त्यागकर, स्वयं परिश्रम करके, सब प्रकार के दुख कष्ट सहकर भी अपने पैरों पर खड़े रहने की शिक्षा और प्रेरणा देने वाले शब्द हैं। संसार में परावलंबी यानि दूसरों पर आश्रित होना या निर्भर रहना एक प्रकार का पाप, सर्वाधिक हीन कर्म और आदमी के अंतः बाह्य व्यक्तित्व को एकदम हीन तथा बौना बनाकर रख देने वाला हुआ करता है। पराश्रित या परावलंबी को हमेशा आश्रय, आधार देने वालों के अधीन रहना पड़ता है। वह उनके इशारों पर नाचने के लिए बाध्य और विवश रहता है। उसकी अपनी इच्छा पहले तो होती है नहीं, होने या रहने पर भी उसका कोई मूल्य और महत्त्व नहीं रहा करता। वह चाह कर भी उसके अनुसार न तो कार्य ही कर सकता है और न उसे कभी पूर्ण होते हुए ही देख सकता है। तनिक-सी इच्छा और बात के लिए उसे पराया मुँह देखना पड़ता है। अपना मन जान-बुझकर मारना पड़ता है। इसी कारण पराधीनता या परावलंबन को घोर पाप और निष्कृष्ट माना गया है। इसके विपरीत स्वाधीनता एवं स्वावलंबन को 'स्वर्ग का द्वार', पुण्य कार्यों का परिणाम और सब प्रकार से श्रेष्ठ स्वीकार किया गया है।

(i) 'स्वयं पर निर्भर रहना' किसका अर्थ है ?

- (क) स्वावलंबन का
- (ख) परावलंबन का
- (ग) पराधीनता का
- (घ) स्वाधीनता का

(ii) परावलंबी का जीवन कैसा होता है ?

- (क) दूसरों का सम्मान पाने वाला
- (ख) दूसरों को अधीन करने वाला
- (ग) दूसरों के अधीन रहने वाला
- (घ) दूसरों में लीन रहने वाला

(iii) निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए तथा दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए।

कथन (A) स्वावलंबन को सब प्रकार से श्रेष्ठ स्वीकार किया गया है।

कारण (R) मनुष्य चाह कर भी अपने अनुसार कार्य नहीं कर सकता है।

1 कथन(A) तथा कारण(R) दोनों गलत हैं।

2 कथन(A) गलत है परन्तु कारण(R) सही है।

3 कथन(A) सही है परन्तु कारण(R) गलत व्याख्या करता है।

4 कथन(A) सही है और कारण(R) कथन की सही व्याख्या करता है।

(iv) किस कारण से परावलंबी को निम्न कोटि का माना गया है?

(v) पराधीनता तथा स्वाधीनता के विषय में समाज में क्या मान्यता है?

निम्नलिखित प्रश्नों के उत्तर निर्देश के अनुसार दीजिए:

(1×5=5)

प्रश्न 2 घर के आँगन में लगे पेड़ सूख गए। वाक्य में रेखांकित पदबंध कौन-सा है ?

प्रश्न 3 वह एक घंटा तीस मिनट तक तैरता रहा। वाक्य में रेखांकित पदबंध कौन-सा है ?

प्रश्न 4 'धन आता है। घमंड हो जाता है।' इस वाक्य का उपयुक्त मिश्र वाक्य क्या होगा ?

प्रश्न 5 'अंधे के हाथ बटेर लगना' मुहावरे का सही अर्थ क्या है?

प्रश्न 6 बूते के बाहर होना मुहावरे का अर्थ लिखकर वाक्य बनाइए।

प्रश्न 7 निम्नलिखित प्रश्नों के उत्तर दीजिए —

(1½×2=3)

(क) समुद्र तट का सायंकालीन वातावरण का कैसा था?

(ख) अखंड आत्मभाव भरने के माध्यम से कवि क्या कहना चाहता है?

प्रश्न 8 निम्नलिखित प्रश्नों के उत्तर दीजिए —

(1×2=2)

(क) हरिहर काका के भाइयों द्वारा अपनी पत्नियों को क्या सीख दी गई? उनके व्यवहार में क्या बदलाव आता गया?

(ख) सपनों के 'से दिन' पाठ के लेखक का मन पुरानी किताबों से क्यों उदास हो जाता है ?

प्रश्न 9 'विकास पब्लिक स्कूल' में 'विद्यार्थी परिषद्' के अध्यक्ष कौशल/कल्पना हैं। आप 'सनातन' वृद्धाश्रम में वृद्धों को खाद्य वस्तुएँ, कपड़े और अन्य आवश्यक वस्तुएँ देकर उनकी मदद करना चाहते हैं। इस कार्य में आप अन्य छात्रों से स्वैच्छिक सहयोग चाहते हैं। इस संबंध में सूचना आलेख लगभग 50 शब्दों में तैयार कीजिए। (5×1=5)

प्रश्न 10 अंडमान निकोबार द्वीप समूह के विषय में जानकारी एकत्रित करते हुए चित्र सहित एक विवरण पुस्तिका (Brochure) बनाइए। (5×1=5)

Subject: Mathematics

No. of questions: 10

M.M. 25

Q- 1. The decimal expansion of the rational number $43/2^4 5^3$ will terminate after how many places of decimals? (2)

Q- 2. Three bells toll at intervals of 9, 12, 15 minutes respectively. If they start tolling together, after what time will they next toll together? (2)

Q-3 Find another equation for $4x-7y-24=0$, such that the graph will represent (2)
(i) Intersecting lines (ii) parallel lines

Q-4 If sum of two numbers is 27 and their product is 182, then find the numbers. (2)

Q-5 Find the number of solutions for the following pairs of equations. (2)
(i) $x-2y=8$, $5x-10y=10$. (ii) $2x-5y+1=0$, $3x-y=0$

Q-6 Solve the following pair of linear equations by elimination method. (3)
(i) $2x-3y=7$ (ii) $4x-y=5$

Q-7. Find the value of m, if $x + 4$ is a factor of the polynomial $x^2 + 3x + m$. (3)

Q-8. Show that $p - 1$ is a factor of $p^{10} + p^8 + p^6 - p^4 - p^2 - 1$. (3)

Q-9 Find the nature of roots for the following quadratic equations, find the roots if they exists. (3)
(i) $2x^2-3x+7=0$ (ii) $6x^2+5x-1$

Q-10 α and β are the zeroes of the quadratic polynomial $x^2 - 6x+y$. Find the value of 'y' if $3\alpha + 2\beta = 20$. (3)

Fun activity:

- Visit different places during vacation and observe the surroundings.
- Collect pictures of objects, shapes, natural phenomena or structures which represent parabolic curves.
- Prepare a collage on an A-3 sheet using these pictures.

Subject: Science

No. of Questions-10

M.M.25

Q1. A ray of light is incident normally on a rectangular glass slab. After passing through the slab, the emergent ray will be: (1)

- a. Deviated and laterally displaced.
- b. Undeviated but laterally displaced.
- c. Deviated but not laterally displaced.
- d. Neither deviated nor laterally displaced.

Q2. In a double displacement reaction such as the reaction between sodium sulphate solution and barium chloride solution: (1)

- (i) exchange of atoms takes place.
- (ii) exchange of ions takes place.
- (iii) a precipitate is produced.
- (iv) an insoluble salt is produced.

The correct option is

- a. (i) and (iv)
- b. (i) and (iii)
- c. Only (ii)
- d. (ii), (iii) and (iv)

Q3. **Assertion (A):** All acids turn blue litmus paper red. (1)

Reason (R): Litmus paper changes colour depending on the concentration of hydrogen ions in the solution.

(A) Both assertion and reason are true, and reason is the correct explanation of the assertion.

(B) Both assertion and reason are true, but the reason is not the correct explanation of the assertion.

(C) The Assertion is true, but the reason is false.

(D) Both Assertion and Reason are false.

Q4. State the function of the following: (2)

- a. Bile juice
- b. Trypsin
- c. Muscular walls of stomach
- d. Anal sphincter

Q5. Draw a ray diagram to show the formation of an image by a concave mirror when an object is placed between its pole (P) and focus (F). List three key characteristics of the image formed in this case. (2)

Q6. Explain the process of transport of oxygenated and deoxygenated blood in the human body with the help of a diagram. (3)

Q7. Give reason: (1×3=3)

- Carbon dioxide (CO_2) dissolved in water forms a weak acidic solution.
- Bases are good conductors of electricity when dissolved in water.
- Electrolysis of water is a redox reaction.

Q8. An object is placed at a distance of 15 cm from a concave lens. The virtual image formed is at a distance of 10 cm from the lens on the same side as the object. Find the focal length of the lens and the magnification produced. (3)

Q9. Amal is working on a science experiment in the laboratory. He takes a few small pieces of magnesium ribbon and burns them in the air. As the magnesium burns, he observes a bright white flame, and a white powder is formed. (1+1+2=4)

Later, Amal performs another experiment where he reacts zinc with dilute hydrochloric acid. He collects the gas produced in the reaction in a test tube. The gas turns lime water milky when bubbled through it. Amal realizes that this reaction produces a different product than the magnesium burning in air.

- What is the chemical equation for the reaction of magnesium with oxygen in the air?
- What is the gas produced when zinc reacts with dilute hydrochloric acid? Give the complete balanced chemical equation.
- What is the observation when hydrogen gas is bubbled through lime water? Support your answer with a chemical equation.

Q10. **Activity:** Investigating Image Formation by a Convex Lens:

To observe how the position and nature of the image formed by a convex lens (from spectacles) change with the object's position.

Procedure:

- Determine the approximate focal length of the convex lens (using the distant object method).
- Place the object at different distances from the lens (beyond $2f$, at $2f$, between f and $2f$).
- For each object position, adjust the screen to obtain a sharp image.
- Note the position, size (magnified, diminished, same size), and nature (real, inverted) of the image.

Questions: (1+2+2)

- How would the focal length change if the convex lens used in the experiment had greater curvature, and how would this affect the distances and overall setup of the experiment?
- How does the magnification of the image change as the object moves from beyond $2f$ towards the convex lens, and what patterns can be observed in the image's size and position throughout this movement?

- C. What factors affect the brightness or intensity of the image in this experiment, and how can you adjust the setup to ensure the image remains bright and clearly focused?

Subject: Social Science

No. of questions: 10

M.M. 25

- Q1. Why is it necessary to increase the area under forest in India? 1
- Q2. What are ravines? 1
- Q3. Why was the Khilafat movement started? 1
- Q4. Which Act did not permit plantation workers to leave the tea garden without permission? 1
- Q5. What does the following cartoon represent? 2



- Q6. Why is power sharing desirable? How is power shared among different organs of government? 3
- Q7. On what basis are the developmental goals determined by different people? Give one example to prove that development for one may cause harm to others. 3
- Q8. 'Conflicting goals can also be developmental goals'. Elaborate with examples. 3
- Q9. Describe the role of the peasants in Awadh in the Non-cooperation Movement. 5
- Q10. "It's surely a responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth." -- Sir David Attenborough.
- (a) What is meant by the above quote? Explain two points.
- (b) How does this quote align with sustainable development? 5

Activity: History

Choose one major historical event or movement from your Class 10 History syllabus.

(Examples: The Salt March, The French Revolution, The Unification of Germany, Quit India Movement, Jallianwala Bagh Massacre, etc.)

- ☞ Decide who you are writing to: your mother, sister, friend, teacher, or even a future generation.
- ☞ Write a letter of about 150–200 words, describing:
- ☞ What is happening around you?
- ☞ What is your role in the event?
- ☞ How do you feel — excited, scared, hopeful, angry?
- ☞ What do you hope will happen in the future?

Subject: Artificial Intelligence

Do the following programs in Python and make the practical file with the source codes and the outputs in the pdf form and share on MS Teams Assignment. 10x3=30

1. To calculate the area of a rectangle
2. To calculate the area and circumference of a circle
3. To calculate the area and perimeter of a cube.
4. To calculate the area of curved surface area of a cone
5. To calculate surface area of a sphere
6. To find the greatest in three numbers entered by the user.
8. Ask age by the user and verify the voting age. Display the appropriate message.
9. To print the multiplication table of 12.
10. To check for a number is Palindrome or not.

Subject: Music

MM: 15

- | | |
|------------------------------------------------------------------|---|
| Q1) Elaborate the difference between a Thaat and Raga. | 2 |
| Q2) Draw a detailed diagram of Taanpura. | 2 |
| Q.3) Write the notation of Ektaal | 3 |
| Q.4) Write the notation of Raag Kafi Drut Khayal or Raag Bhopali | 3 |
| Q.5) Define the following | 5 |
| a) Taal | |
| b) Murki | |
| c) Kan Swar | |
| d) Avartan | |
| e) Naad | |

Subject: Home Science

No. of questions: 10

M.M. 25

Q1. Which practice helps in preventing the growth of Mold on food? 1

- a) Storing food in a warm place
- b) Keeping food in airtight containers
- c) Leaving food uncovered
- d) Storing food in direct sunlight

Q2. The primary purpose of washing fruits and vegetables before consumption is to: 1

- a) Enhance their flavour
- b) Remove pesticides and bacteria
- c) Make them look shiny
- d) Soften their texture

Q3. Which of the following is NOT a recommended practice for personal hygiene in the kitchen? 1

- a) Tying back long hair
- b) Wearing clean clothing
- c) Wearing jewellery while cooking
- d) Keeping fingernails short and clean

Q4. Cross-contamination can occur when: 1

- a) Raw meat juices touch cooked or ready-to-eat foods
- b) Using the same cutting board for meat and vegetables without cleaning
- c) Using the same knife for raw and cooked foods without washing
- d) All the above

Q5. How often should cutting boards be replaced to maintain food safety? 1

- a) Every month
- b) Once a year
- c) Every five years
- d) When they become excessively scratched or worn

Q6. Which of the following statements about food safety is TRUE? 1

- a) Leftovers should be kept at room temperature until cool before refrigerating
- b) Perishable foods should not be left out for more than two hours
- c) Raw and cooked foods can be stored together in the refrigerator
- d) It is safe to taste food to check if it has gone bad

Q7. Very short answer type questions-

(5x1= 5)

I. Write the full form of FSSAI.

II. Why is it important to fill cracks and fishers in walls and flooring?

III. What should be done before storing milk?

IV. Which food group is the primary source of carbohydrates?

V. Why should one wash their hands before eating?

Q8. Short answer type questions-

(2x2= 4)

I. What do you mean by Dovetailing? Give one example of it.

II. What do you mean by PPF?

Activity:

Q9. Write a report on any five malpractices you have observed in the market and write your responsibilities as a consumer in each context.

5

Q10. Collect and paste care labels of different fabric clothes. Identify the symbols imprinted on them and write their care instructions.

5