



# DARSHAN ACADEMY

## Subject Enrichment Assignments - 2025

CLASS: X SUBJECT: ENGLISH LANGUAGE & LITERATURE

### General Instructions:

- Submit your assignments in a neatly arranged file with a cover page and table of contents.
- Use A4 sheets and ensure that your handwriting or print is clear and legible.
- Make your work attractive by adding pictures, drawings, or simple borders.
- Complete the work on time and submit it on the first day after the summer vacation.

### ASSIGNMENT 1: Reading Passage

**Q.1** Read the following passage carefully and answer the questions that follow:

In the heart of the bustling city, there was a small park that offered a serene escape from the chaos. The park was a haven for both people and wildlife. Tall trees provided shade, and the sound of birds chirping filled the air. Every morning, joggers and walkers could be seen making their rounds, while children played on the swings and slides. The park also had a small pond where ducks and swans swam gracefully. It was a place where people came to relax, read a book, or simply enjoy the beauty of nature.

As the day progressed, the park became a hub of activity. Office workers on their lunch breaks would sit on benches, enjoying their meals and the fresh air. Elderly couples strolled hand in hand, reminiscing about the past. Teenagers gathered in groups, chatting and laughing, while some practiced their skateboarding skills on the paved paths. The park was a melting pot of different generations, all finding solace in its green embrace.

In one corner of the park, there was a small community garden. Volunteers tended to the plants, growing vegetables and flowers. The garden was a source of pride for the community, and many people contributed their time and effort to keep it thriving. It was also a place where children learned about nature and the importance of caring for the environment.

As evening approached, the park took on a different charm. The setting sun cast a golden glow over the landscape, and the temperature cooled down. Families gathered for picnics, spreading out blankets and sharing homemade food. The laughter of children playing games echoed through the park, creating a joyful atmosphere. Street musicians often performed near the entrance, their melodies adding to the park's enchanting ambiance.

The park was not just a place of leisure; it also played a crucial role in the well-being of the city's residents. It provided a space for physical activity, which was essential for maintaining health. It offered a respite from the stress of urban life, allowing people to unwind and recharge. The park fostered a sense of community, bringing people together and creating bonds that transcended age and background.

In a city that never slept, the park was a sanctuary of peace and tranquility. It reminded people of the simple pleasures in life and the importance of connecting with nature. Whether it was a brief visit during a busy day or a leisurely afternoon spent in its embrace, the park was a cherished part of the city's fabric.

### Questions:

1. What activities do people engage in at the park throughout the day?
2. How does the park contribute to the well-being of the city's residents?
3. Describe the atmosphere of the park in the evening.

4. What role does the community garden play in the park?
5. Why is the park considered a sanctuary in the bustling city?
6. How do different generations interact in the park?
7. What impact does the park have on the mental health of the city's residents?
8. Explain the significance of the street musicians in the park.
9. How does the park foster a sense of community among the city's residents?
10. What are the benefits of having a green space like the park in an urban area?

**Q2 Read the following passage carefully and answer the questions that follow:**

In a small village nestled between rolling hills, there was a school that stood as a beacon of hope and knowledge. The school was not just a place for learning; it was the heart of the community. Every morning, children from the village and nearby areas would walk to the school, their laughter and chatter filling the air. The school building, though modest, was always well-maintained, with colorful murals painted by the students adorning its walls.

The teachers at the school were dedicated and passionate about their work. They believed in nurturing not just the minds but also the hearts of their students. Lessons were often conducted outdoors, under the shade of the large banyan tree that stood in the schoolyard. The children learned about the world around them through stories, songs, and hands-on activities. The school also had a small library, where students could borrow books and lose themselves in the magic of reading.

One of the most anticipated events at the school was the annual science fair. Students would spend weeks preparing their projects, eager to showcase their creativity and knowledge. The fair was a grand affair, with parents and villagers coming to see the exhibits. It was a celebration of learning and innovation, and the pride on the faces of the students was evident.

The school also played a vital role in the social life of the village. It hosted various events and festivals, bringing the community together. The annual sports day was a highlight, with everyone participating in games and races. The school grounds would be filled with cheers and applause as students competed and showcased their talents. These events fostered a sense of unity and camaraderie among the villagers.

As the sun set each day, the school would quiet down, but its impact on the lives of the students and the community was lasting. It was a place where dreams were nurtured, and the seeds of knowledge were sown. The school was a testament to the power of education and the difference it could make in the lives of people.

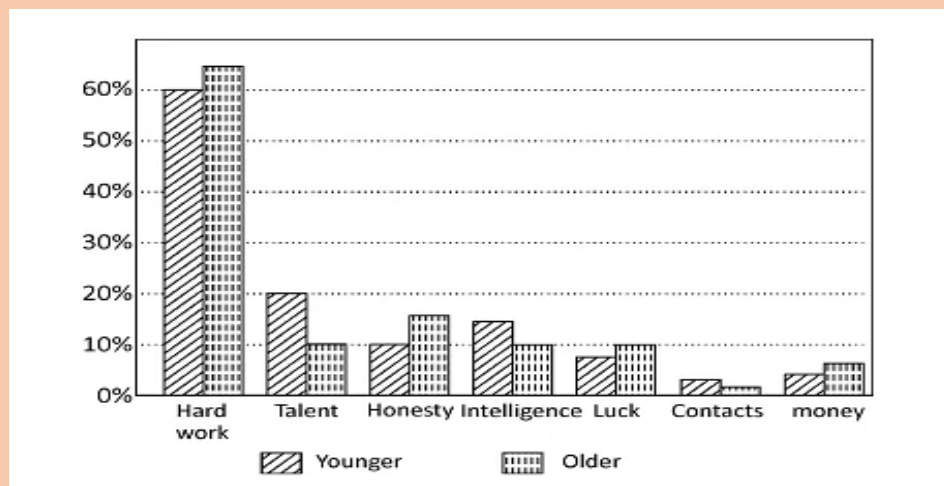
**Questions:**

1. How does the school contribute to the overall development of the students beyond academic learning?
2. What challenges might the school face in maintaining its role as the heart of the community, and how could these be addressed?
3. Describe how the teachers' approach to education impacts the students' learning experience.
4. How do the events hosted by the school foster a sense of unity and collaboration among the villagers?
5. In what ways do the students showcase their creativity during the annual science fair?
6. The school building is described as:
  - a) Large and modern
  - b) Modest and well-maintained
  - c) Old and dilapidated
  - d) Small and neglected
7. Lessons at the school are often conducted:

- a) In a traditional classroom  
c) Outdoors under a banyan tree
- b) Online  
d) In a large auditorium
8. The annual science fair is:  
a) A small event with few participants  
c) An event only for teachers
- b) A grand affair with many exhibits  
d) A sports competition
9. The school library is a place where students can:  
a) Play games  
c) Watch movies
- b) Borrow books and read  
d) Attend music classes
10. The annual sports day is significant because:  
a) It is a day off for students  
c) It is a fundraising event
- b) It brings the community together  
d) It is a day for cleaning the school

### ASSIGNMENT 2: Analytical Paragraph

**Task1 :** A research was conducted in order to see the maturity gap between young people of 15-35 years old and older people of 36-60 years old. The respondents were asked which of the following was the most important in order to be successful in life. Conceptualize the given result in an analytical paragraph having 150-200 words.



**Task 2:** As the Captain of the school's Cultural Club, you have been asked to study the given itinerary provided by a tour-organising vendor.

A 3N/2D Educational Tour for the Senior School Students:

- Jabalpur and Kanha National Park (Vandhya Pradesh)
- Tour Travel & sightseeing by bus.
- Accommodation on quad sharing basis.
- One staff complimentary for every 20 students.
- Bottled mineral water throughout the tour.
- Dance Party on 22 November.
- Insurance policy of ₹ 20,000/- per head.
- Provision of Tour Manager's assistance to all places.

Day	Estimated time of departure from	Estimated time of arrival	Sight-seeing Destination/ Activity	Time spent at the destination
22 Nov. 2023	8:49 am (Nagpur Junction)-8 hrs. 30 min	5:23 pm	Reporting at the hotel	
23 Nov. 2023	9:00am (hotel)	10:00am	Bhawartal Garden	1 hr.
	11:00am (garden)	11:40am	Bhedaghat Dhuandhar Falls	1hr.
	12:40pm (falls)	1:00pm	Lunch (nearby restaurant)	1 hr.
	2:00pm (restaurant)	2:15pm	Marble Rocks Cable car tour	1hr. 30 mins
	3:45pm (Marble Rocks)	4:45 pm	Rani Durgavati Museum	1 hr. 30 mins
	6:15pm (museum)	7:00pm	Back to the hotel	
24 Nov. 2023	5:30am (hotel)- 170 kms- 4 hrs. drive	9:30am	Ranha Tiger Reserve	7hrs.
	4:30pm (Tiger Reserve)	9:00pm	Back to the hotel	
25 Nov. 2023	7:54 am (Jabalpur Railway station)- 8 hrs. 45 min	4:21 pm	Nagpur Railway Junction	

### ASSIGNMENT 3: Letter Writing

Highlight the importance of proper garbage disposal with an aim to create awareness among the city residents. Write a letter regarding the same to the editor of a local daily Hindustan Times. You are Rubal of Shakti Nagar, Delhi.

### ASSIGNMENT 4: Grammar Questions

#### Fill in the blanks.

- Each student ..... asked to write an essay on the given topic. (was / were / has / have)
- Neither Shyam nor Ram ..... there. (was / were / has / have)
- My sister along with her family ..... (live / lives / living / are living) in Chennai.
- Neither you nor I ..... right. (am / are / is)
- Every situation ..... its pros and cons. (has / have / is / are)
- ..... the test. (Both did not pass / Neither passed)
- A lot of money ..... required to buy a home. (is / are)
- A number of people ..... to migrate. (want / wants)
- There ..... few applicants. (was / were)

#### Correct the error and rewrite the sentence.

- There was almost anything in the box.

11. Tom is the younger of my four children.
12. The older we grow the wiser we became.
13. She doesn't remember nothing.
14. They have got married in July.
15. You had better not to annoy him.
16. I would rather you don't disturb me.

**Read the sentences given below and complete the statement using the correct option.**

18. What ..... you do if you lost your job? (will / would / should / must)
19. You needn't have ..... for me. (to wait / waited / wait / waiting)
20. They said that they ..... come in the afternoon. (will / would / may / should)

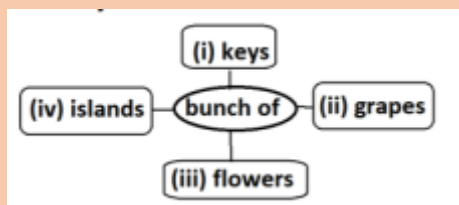
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### ASSIGNMENT 5: Prose & Poetry Questions

Q1. Read the following extract and answer the questions:

When he finished, he went to the window to buy a stamp which he licked and then affixed to the envelope with a blow of his fist. The moment the letter fell into the mailbox the postmaster went to open it. It said: "God: Of the money that I asked for, only seventy pesos reached me. Send me the rest, since I need it very much. But don't send it to me through the mail because the post office employees are a bunch of crooks. Lencho."

i '...bunch of crooks.' Pick the option that DOES NOT collate with 'bunch of', correctly.



- a) option (i)
  - b) option (ii)
  - c) option (iii)
  - d) option (iv)
- ii What was the most likely response that the postmaster expected in Lencho's second letter?
- i) sorrowful
  - ii) gratitude
  - iii) disappointment
  - iv) elation
  - v) shock
- a) ii and v
  - b) i and iii
  - c) ii and iv
  - d) iii and v
- iii Pick the option that lists the option corresponding to—' with a blow of his fist.'



- a) Option (i)
- b) Option (ii)
- c) Option (iii)
- d) Option (iv)

**iv Lencho's letter included**

- a) details of his problems.
- b) description of the post office.
- c) belief of being looted.
- d) List of further demands.

**v Pick the most suitable quote for this extract.**

- "It is easier to fool people than to convince them that they have been fooled." – Mark Twain
- b) "Real knowledge is to know the extent of one's ignorance."- Confucius
- c) "You see a person's true colours when you are no longer beneficial to their life."- anonymous
- d) "True generosity means accepting ingratitude." – Coco Chanel

**Q2. Choose the option based on an extract.**

(A) "We, who were outlaws not so long ago, have today been given the rare privilege to be host to the nations of the world on our own soil. We thank all of our distinguished international guests for having come to take possession with the people of our country of what is, after all, a common victory for justice, for peace, for human dignity."

**i The guests at the spectacular ceremony are called distinguished because**

- a) they have been invited as guests to attend it.
- b) they are eminent world leaders witnessing it.
- c) they are visiting the country for this purpose.
- d) they have resumed diplomatic relations with the country.

**ii It is a victory for 'human dignity'. Pick the option that lists the correct answer for what 'human dignity' would include.**

- a) i) equality ii) liberty iii) indecency
- b) i) liberty ii) indecency iii) self-respect
- c) i) immorality ii) self-respect iii) equality
- d) i) equality ii) liberty iii) self-respect

**iii Why does the speaker say that it is a 'rare privilege'? He says this as they have**

- a) been deprived of this honour.
- b) seldom been given this honour.
- c) experienced it for the first time.
- d) been chosen over other countries, for this honour

**iv How do you think the speaker feels? Choose the option that best fits his state of mind.**

- a) i) emotional ii) elated iii) unmindful
- b) i) elated ii) unmindful iii) overwhelmed



- c) i) overwhelmed ii) elated iii) honoured
- d) i) elated ii) honoured iii) unmindful

**v Pick the option that showcases the usage of 'host' as in the extract.**

- a) He was praised for his hospitality as the host of the party.
- b) She was able to host the event without any hindrance.
- c) She met the host and apologised for her friend's misbehaviour.
- d) He is the best host that one can ever come across.

**Q3. Answer the following question in 120 words:**

- i Excess of everything is bad. Comment in the wake of Mrs Pumphrey's love for Tricki.
- ii Write down incidences in support of values one should inculcate from Mr James Herriot.
- iii Do you think parents like Mrs Pumphrey exist? If yes, is it a good thing to pamper children? Why or why not?

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### ASSIGNMENT 6 : Reading Passage

**Q1. Read the following passage carefully and answer the questions that follow:**

In a quaint coastal town, there was a lighthouse that had stood tall for over a century. The lighthouse was not just a navigational aid for ships; it was a symbol of hope and safety for the townspeople. Every evening, as the sun dipped below the horizon, the lighthouse would come to life, its powerful beam cutting through the darkness and guiding vessels safely to shore.

The lighthouse keeper, Mr. Thompson, was a man of few words but many stories. He had been tending to the lighthouse for over thirty years, ensuring that its light never faltered. Mr. Thompson lived in a small cottage at the base of the lighthouse, accompanied by his loyal dog, Max. The townspeople held him in high regard, often visiting him to hear tales of the sea and the ships he had guided.

The lighthouse was also a popular spot for tourists. Visitors would climb the winding staircase to the top, where they were rewarded with a breathtaking view of the ocean. On clear days, one could see for miles, the vast expanse of blue meeting the sky at the horizon. The sound of waves crashing against the rocks below added to the allure of the place.

One of the most memorable events in the town's history was the great storm of '85. The storm had brought with it fierce winds and towering waves, threatening to engulf the town. But the lighthouse stood firm, its light piercing through the tempest. Mr. Thompson had worked tirelessly that night, ensuring that the light remained steady. His efforts had saved countless lives, and the townspeople had celebrated him as a hero.

The lighthouse also played a significant role in the town's cultural life. It was the backdrop for many local festivals and events. The annual Lighthouse Festival was a highlight, with music, food, and games. The festival brought the community together, celebrating their heritage and the enduring symbol of the lighthouse.

As the years passed, the lighthouse continued to stand as a beacon of hope and resilience. It reminded the townspeople of their strength and unity, and the importance of looking out for one another. The lighthouse was more than just a structure; it was a testament to the enduring spirit of the coastal town.

**Questions:**

1. How does the lighthouse contribute to the safety and well-being of the town?
2. What challenges might Mr. Thompson face in maintaining the lighthouse, and how could these be addressed?

3. Describe how the lighthouse serves as a symbol of hope and resilience for the townspeople.
4. How do the events hosted at the lighthouse foster a sense of community among the townspeople?
5. In what ways does the lighthouse attract tourists, and what impact does this have on the town?
6. The lighthouse is described as:
  - a) A modern navigational aid
  - b) A symbol of hope and safety
  - c) An abandoned structure
  - d) A new addition to the town
7. Mr. Thompson is characterized as:
  - a) A talkative and outgoing person
  - b) A man of few words but many stories
  - c) A newcomer to the town
  - d) A retired sailor
8. The great storm of '85 is significant because:
  - a) It caused the lighthouse to collapse
  - b) It brought the townspeople together
  - c) It was the first storm the town had experienced
  - d) It led to the construction of the lighthouse
9. The annual Lighthouse Festival is:
  - a) A small gathering of lighthouse keepers
  - b) A major event with music, food, and games
  - c) A private event for Mr. Thompson's family
  - d) A historical reenactment
10. The passage suggests that the lighthouse is important because:
  - a) It is the tallest structure in the town
  - b) It plays a crucial role in navigation and community life
  - c) It is a popular spot for fishing
  - d) It is a place for scientific research

**Q2. Read the following passage carefully and answer the questions that follow:**

In the heart of the dense forest, there was a hidden waterfall that few people knew about. The waterfall was a majestic sight, with water cascading down from a great height, creating a mist that enveloped the surrounding area. The sound of the water crashing into the pool below was both powerful and soothing, a natural symphony that echoed through the trees.

The forest around the waterfall was teeming with life. Tall trees with thick canopies provided shelter for countless species of birds and animals. The forest floor was covered in a carpet of leaves and moss, and the air was filled with the scent of wildflowers and damp earth. It was a place of tranquility and beauty, untouched by the hustle and bustle of the outside world.

One day, a group of explorers stumbled upon the waterfall while trekking through the forest. They were captivated by its beauty and decided to set up camp nearby. As they spent more time in the area, they discovered the rich biodiversity of the forest. They saw colorful birds flitting from tree to tree, heard the calls of distant animals, and even spotted a family of deer drinking from the pool at the base of the waterfall.

The explorers were careful to respect the natural environment. They made sure to leave no trace of their presence, taking only photographs and memories with them. They understood the importance of preserving such pristine places for future generations. Their experience at the waterfall left a lasting impression on them, a reminder of the wonders of nature and the need to protect it.

As the explorers prepared to leave, they made a pact to return one day and continue their exploration. They knew that the forest and its hidden waterfall held many more secrets waiting to be discovered. The journey had not only been an adventure but also a lesson in the beauty and fragility of the natural world.

**Questions:**

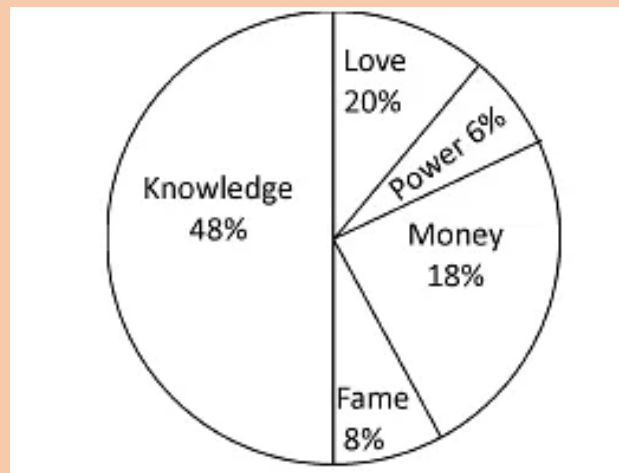
1. How does the passage describe the waterfall and its surroundings?
2. What impact did the explorers' visit have on their perception of nature?
3. Describe the biodiversity of the forest as mentioned in the passage.
4. How did the explorers ensure they respected the natural environment?
5. What lesson did the explorers learn from their experience at the waterfall?
6. How can the explorers' approach to preserving the environment be applied to other natural sites?



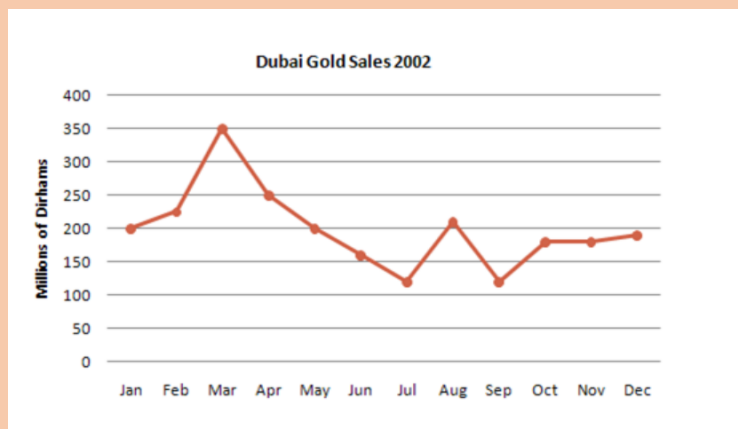
7. What challenges might arise in protecting such pristine places, and how can they be addressed?
8. How does the passage highlight the importance of biodiversity in the forest ecosystem?
9. In what ways can individuals contribute to the conservation of natural habitats?
10. How does the experience of the explorers reflect the broader theme of environmental stewardship?
11. The waterfall is described as:
  - a) A small stream
  - b) A majestic sight with cascading water
  - c) A dried-up riverbed
  - d) A man-made structure
12. The forest around the waterfall is:
  - a) Sparse and dry
  - b) Teeming with life and dense
  - c) Urbanized and polluted
  - d) Desert-like and barren
13. The explorers discovered the waterfall while:
  - a) Driving through the forest
  - b) Trekking through the forest
  - c) Flying over the forest
  - d) Sailing on a river
14. The explorers ensured they respected the environment by:
  - a) Building permanent structures
  - b) Leaving no trace of their presence
  - c) Hunting animals
  - d) Cutting down trees
15. The passage suggests that the explorers' experience was:
  - a) Disappointing and uneventful
  - b) Captivating and educational
  - c) Dangerous and risky
  - d) Boring and monotonous

### ASSIGNMENT 7: Analytical Paragraph

**Task1 :** You asked people what they thought was the most valuable thing. The given pie chart shows the analytics of the different answers you received. Write an analytical paragraph for a research project in 150-200 words.



**Q.2** The graph given shows estimated sales of gold in Dubai in 2002. Write an analytical paragraph describing the line graph in around 150 words.



### ASSIGNMENT 8: Letter Writing

You are Neena / Navin, a student of Max Public School, Mumbai. You are concerned about the lack of awareness around animal rights. Write a letter to the editor about the need to raise awareness about animal rights among the public.

### ASSIGNMENT 9: Grammar Questions

#### Q1. Fill in the blanks with an appropriate verb form.

A mechanical arm that .....1..... (picks / is picking / pick / has picked) 120 items a minute from a conveyor belt .....2..... (win / wins / won / had won) Japan's Robot of the Year award recently, .....3..... (defeat / defeating / defeated) a dozen other finalists including a walking humanoid robot and a fire-fighter robot. Japan .....4..... (has been / is / was) aggressively campaigning to trumpet its robotic technology as the road to growth.

The mechanical arms that won the award .....5..... (are built / have built / was built) by Fanuc Ltd. They are already .....6..... (using / being used / been used) at food and pharmaceutical plants, where sanitation is critical and human error must .....7..... (avoid / be avoiding / be avoided). The robotic arms pick up the items using suction cups that .....8..... (blow / blown / blows) air in and out at their tips. They then work together to neatly place them in rows in boxes. The robots have no .....9..... (expose / exposed / exposing) wiring for easy washing. They also .....10..... (work / worked / are working) tirelessly for 24 hours straight. And they .....11..... (does not / do not / has not / have not) misbehave.

#### Q2. Complete the following sentences with an appropriate word or phrase. Choose your answers from the options given below.

Chinese scientists .....1..... a Wing-In-Ground aircraft .....2..... can fly long distances just a few feet .....3..... the sea surface. The plane can fly .....4..... speeds of up to 300 kmph, and can carry up to 4 tonnes of weight .....5..... take off. It is as safe .....6..... ships, although five or six times .....7..... and it can carry much more weight than ordinary planes, .....8..... costing as .....9..... and using half as much fuel.

1. a) developed; b) have developed; c) has developed; d) had developed
2. a) who; b) what; c) which; d) whom
3. a) above; b) over; c) across; d) under
4. a) on; b) at; c) with; d) in

5. a) in; b) at; c) on; d) from
6. a) as; b) so; c) like; d) than
7. a) fast; b) faster; c) fastest
8. a) while; b) though; c) although; d) in spite
9. a) many; b) much; c) more; d) much more

### ASSIGNMENT 10: Prose & Poetry Questions

Q1. Read the following extract and answer the questions.

(A) The house- the only one in the entire valley -sat on the crest of a low hill. From this height, one could see the river and the field of ripe corn dotted with the flowers that always promised a good harvest. The only thing the earth needed was a good downpour or at least a shower. Throughout the morning Lencho -who knew his fields intimately- had done nothing but see the sky towards the northeast.

**i Based on the detail of the house's location, how can it best be described?**

- a) majestic
- b) imposing
- c) solitary
- d) Unique

**ii The field of corn dotted with flowers means that**

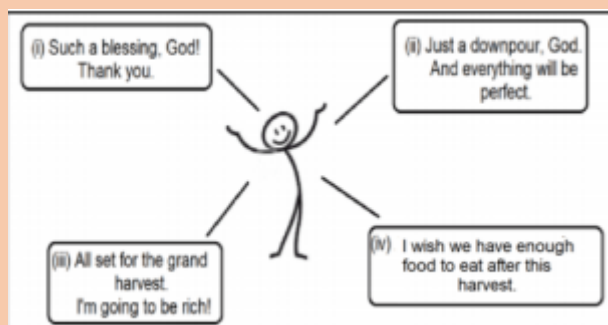
- a) not a single flower was bigger than a dot
- b) the flowers were scattered across.
- c) the flowers were shaped like dots.
- d) the flowers had shrunk in size.

**iii Lencho wished for a downpour or a heavy shower. Pick the option that correctly lists the correct match for the kinds of rain.**

- a) 1-ii,2-iv,3-v,4-i,5-iii
- b) 1-iv,2-i,3-iii,4-v,5-ii
- c) 1-v,2-iii,3-iv,4-ii,5-i
- d) 1-iii,2-v,3-i,4-ii,5-iv

1. Heavy Rain	(i) light rain that falls in very fine drops
2. Thunderstorm	(ii) very heavy rain, tropical rain
3. Drizzle	(iii) it's coming down quite strong and you get wet very quickly
4. Torrential Rain	(iv) really heavy rain that comes very suddenly
5. Downpour	(v) violent short-lived weather disturbance associated with lightning, thunder and gusty winds

iv Based on the given extract, what is Lencho NOT likely to think while looking at his field?



- a) Option (i)                                      b) Option (ii)  
c) Option (iii)                                    d) Option (iv)

v Which quote supports the idea in the given extract?

- a) "Farming is a profession of hope."  
b) "I would rather be on my farm than be emperor of the world."  
c) "Farming looks mighty easy when your plough is a pencil, and you're a thousand miles from the cornfield."  
d) "Those too lazy to plough in the right season will have no food at the harvest."

Q2 Answer the following questions in 100-120 words.

- a) Freedom is inconsequential if it is behind bars of prejudice and narrow-mindedness. How would you explain this statement? Support your answer with suitable examples from the real world.  
b) After having read the lesson on the oppression that communities faced in South Africa, you were deeply hurt. You could also relate to the struggles and hardships of millions of Indians who fought against the oppressive British rule.  
c) Write a diary entry expressing your feelings about the oppression faced by people in their homeland. You may begin like this:

24 August 20XX, Monday 9:00 pm

My heart is filled with sadness as I think of the oppressed who had to tolerate the inhuman attitude of the oppressors in their own land. ....

- d) Prejudice based on race and colour or any other reason causes profound hurt. Write about any one character from the chapters in First Flight who was subjected to such prejudice. Discuss the consequence of this prejudice for the character.

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### Presentation Tips:

- Use a **file folder or spiral bind** to organize your assignment neatly.
  - Make the headings bold and underlined.
  - Use proper margins and spacing for neatness.
  - Illustrate your work wherever possible.
  - Keep your work well-structured and grammatically accurate.
-

Happy Learning & Have a Great Summer!



# DARSHAN ACADEMY

## Subject Enrichment Assignments - 2025 CLASS: X SUBJECT: INFORMATION TECHNOLOGY

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### General Instructions:

- Submit your assignments in a neatly arranged file with a cover page and table of contents.
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- 

### ASSIGNMENT 1

Create a 2-3 Page Report: On “The Impact of Technology on Education “

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### ASSIGNMENT 2

Himanshi has just created her first Internet based account on social media platform. Help her by giving any four general guidelines for managing strong passwords.

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### ASSIGNMENT 3

1. A team of writers is collaborating on a report using a word processing software with a Track Changes feature. One writer creates the initial draft, which then needs to be reviewed and edited by the rest of the team.
    - a) Why is the Track Changes feature essential for collaborative document editing?
    - b) Which menu option can be used to access this feature?
    - c) Can reviewers add comments?
    - d) Once the changes are made by all the reviewers, who can accept or reject them?
- 

### ASSIGNMENT 4

Make a presentation on the tasks that a spreadsheet can do?

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### ASSIGNMENT 5

What is the default alignment of text and number data in a cell?

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### ASSIGNMENT 6

1. What is the extension of a LibreOffice Calc file?
  2. Which symbol is used to insert a formula in a worksheet?
  3. What are the different kinds of data that can be entered in a worksheet?
- 

### ASSIGNMENT 7

Create a E-poster on useful Shortcut keys of windows and Libre Office?



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### ASSIGNMENT 8

Enlist extension of all useful software's of X class curriculum

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### ASSIGNMENT 9

1. Type all steps for creating a file, folders.
  2. How to apply CUT, Copy and Paste
- 

### ASSIGNMENT 10

1. Write the steps to rename a worksheet.
2. Label the different components of a spreadsheet.



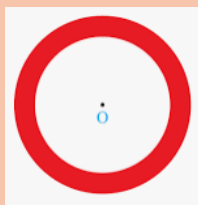
**DARSHAN ACADEMY**  
**VACATION ASSIGNMENT – 2025-26**  
**CLASS: — X     SUBJECT: MATHEMATICS**

**General Instructions:**

- Submit your assignments in a neatly arranged file with a cover page and table of contents.
- Use A4 sheets and ensure that your handwriting or print is clear and legible.
- Make your work attractive by adding pictures, drawings, or simple borders.
- Complete the work on time and submit it on the first day after the summer vacation.

**WORKSHEET 1 (MISCELLANEOUS QUESTIONS)**

1. (a) Find the whole quantity if 70% of it is 14 minutes.  
(b) Convert 0.65 into %
2. Find the cost of polishing a circular table top of diameter 1.4 cm if the rate of polishing is Rs 15 per m<sup>2</sup>.  
The adjoining figure shows two circles with the same centre. The radius of the larger circle is 10 cm and the radius of the smaller circle is 7 cm.



- Find (a) the area of larger circle  
(b) the area of the smaller circle  
(c) the shaded area between the two circles
3. Arrange in descending order  
 $\frac{2}{9}$ ,  $\frac{2}{3}$ ,  $\frac{8}{21}$
  4. Solve  
(a)  $2\frac{2}{3} + 3\frac{1}{2}$     (b)  $3\frac{2}{3} - 2\frac{1}{2}$     (c)  $5\frac{2}{3} \times 2\frac{1}{2}$     (d)  $6\frac{2}{3} \div 3\frac{1}{2}$
  5. Subtract  $3a(a - 4b + 5c)$  from  $4a(10c - 3b + 2a)$
  6. Find the smallest number by which 256 must be multiplied to obtain a perfect cube.
  7. The diagonal of the rhombus are 7.5 cm and 12 cm find its area.
  8. Find value of m if  $5^{m+1} \div 5^3 = 5$
  9. A machine in a soft drink factory fills 840 bottles in 6 hours how many bottles will it fill in 5 hours.
  10. Simplify  $3x(4x - 5) + 3$  and find the value for  $x = 3$

**WORKSHEET 2 (REAL NUMBERS)**

1. Prove that the following are irrational numbers

(i)  $\sqrt{2}$     (ii)  $\sqrt{5}$     (iii)  $3\sqrt{2}$     (iv)  $3 - \sqrt{5}$     (v)  $\sqrt{3} + \sqrt{2}$     (vi)  $3 + \sqrt{5}$     (vii)  $6/3 + \sqrt{2}$

2. Find out whether the following numbers are rational or irrational:

(i)  $(\sqrt{2} + 2)$     (ii)  $(2 - \sqrt{2}) \times (2 + \sqrt{2})$     (iii)  $(\sqrt{2} + \sqrt{3})^2$     (iv)  $6/3\sqrt{2}$

3. Can the number  $26^n$ , n being a natural number, end with the digit 5? Give reasons.

4. Can the number  $34^n$ , n being a natural number, end with the digit 0? Give reasons.

5. Given that  $HCF(306, 657) = 9$ , find  $LCM(306, 657)$ .

6. If two positive integers  $a$  and  $b$  are written as  $a = x^3y^2$  and  $b = xy^3$ ;  $x, y$  are prime numbers, then find the HCF ( $a, b$ ).

### WORKSHEET 3 (REAL NUMBERS)

1. If two positive integers  $p$  and  $q$  can be expressed as  $p = ab^2$  and  $q = a^3b$ ;  $a, b$  being prime numbers, then find the LCM ( $p, q$ ).
2. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.
3. Find the largest number which divides 2053 and 967 and leaves a remainder of 5 and 7 respectively.
4. Two tankers contain 850 litres and 680 litres of kerosene oil respectively. Find the maximum capacity of a container which can measure the kerosene oil of both the tankers when used an exact number of times.
5. In a morning walk, three persons step off together. Their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that all can cover the same distance in complete steps?
- 6.. Find the least number which when divided by 12, 16, 24 and 36 leaves a remainder 7 in each case.

### WORKSHEET 4 (LINEAR EQUATIONS IN TWO VARIABLES)

1. Solve the equation  $3x - 2y = 7$  and  $x + y = 5$  using the method of substitution.
2. Determine the value of  $p$  if the point  $(3, p)$  lies on the line  $2x - 3y = 12$ .
3. Solve the pair of equations:  $2x + 3y = 8$  and  $4x - y = 5$ , using the elimination method.
4. Solve the following pair of equations graphically:  $2x - y = 1$  and  $x + 3y = 9$ .
5. Determine the value of  $k$  if the lines  $3x + ky = 6$  and  $2x - 5y = 10$  are parallel.
6. Solve the following pair of equations:  $x/2 + y/3 = 4$  and  $x/4 - y/5 = 1/2$ .

### WORKSHEET 5 (WORD PROBLEMS ON LINEAR EQUATIONS)

1. The sum of ages of a father and his son is 48 years. Five years ago, the father was four times as old as the son. Find their present ages.
2. A triangle has sides of lengths  $x, x + 4$ , and  $x + 8$  units. If the perimeter is 30 units, find the lengths of the sides.
3. A two-digit number is such that the sum of its digits is 12. If the number is reversed, it is 18 less than the original number. Find the number.
4. The ratio of boys to girls in a class is 5:3. If there are 48 students in total, find the number of boys and girls.
5. The perimeter of a rectangle is 26 cm. If the length is 3 cm more than the width, find the dimensions of the rectangle.

### WORKSHEET 6(MCQS)

1. A company sells T-shirts for \$12 each and jeans for \$30 each. If the company sold a total of 20 items and earned \$400, how many T-shirts were sold?  
a) 10                      b) 15                      c) 20                      d) 25
2. The perimeter of a rectangle is 60 cm. The length is 3 times the width. What is the width of the rectangle?

- a) 10 cm                      b) 12 cm                      c) 15 cm                      d) 18 cm

3. A shop sells two types of pencils: regular pencils for \$0.50 each and mechanical pencils for \$1.50 each. If the shop earned a total of \$15 by selling 12 pencils, how many regular pencils were sold?  
a) 4                      b) 6                      c) 8                      d) 10
4. What is the minimum number of rooms required during the event?  
a) 11                      b) 31                      c) 41                      d) 21
3. The LCM of 60, 84 and 108 is  
a) 3780                      b) 3680                      c) 4780                      d) 4680
4. The product of HCF and LCM of 60,84 and 108 is  
a) 55360                      b) 35360                      c) 45500                      d) 45360
5. What is the probability of getting a head when flipping a fair coin?  
a)  $\frac{1}{2}$                       b)  $\frac{1}{3}$                       c)  $\frac{1}{4}$                       d)  $\frac{1}{6}$
6. A deck of cards contains 52 cards. What is the probability of drawing a king?  
a)  $\frac{1}{13}$                       b)  $\frac{1}{26}$                       c)  $\frac{1}{39}$                       d)  $\frac{1}{52}$
7. A standard deck of cards contains 4 aces. What is the probability of drawing an ace from a shuffled deck?  
a)  $\frac{1}{4}$                       b)  $\frac{1}{13}$                       c)  $\frac{1}{26}$                       d)  $\frac{1}{52}$
8. If two dice are rolled, what is the probability of getting a sum of 7?  
a)  $\frac{1}{6}$                       b)  $\frac{1}{9}$                       c)  $\frac{1}{12}$                       d)  $\frac{1}{36}$
9. A bag contains 5 red balls and 3 blue balls. What is the probability of drawing a blue ball?  
a)  $\frac{1}{4}$                       b)  $\frac{3}{8}$                       c)  $\frac{3}{5}$                       d)  $\frac{5}{8}$
10. A bag contains 4 green balls, 3 red balls, and 5 yellow balls. What is the probability of drawing a red ball?  
a)  $\frac{3}{12}$                       b)  $\frac{3}{11}$                       c)  $\frac{3}{10}$                       d)  $\frac{3}{9}$
11. What is the probability of rolling a number greater than 4 on a fair six-sided die?  
a)  $\frac{1}{6}$                       b)  $\frac{1}{3}$                       c)  $\frac{1}{2}$                       d)  $\frac{2}{3}$
12. A bag contains 5 black balls and 7 white balls. If two balls are drawn without replacement, what is the probability that both are black?  
a)  $\frac{5}{12}$                       b)  $\frac{1}{6}$                       c)  $\frac{5}{11}$                       d)  $\frac{5}{10}$
13. Two fair six-sided dice are rolled. What is the probability of getting a sum of 9?  
a)  $\frac{1}{6}$                       b)  $\frac{1}{9}$                       c)  $\frac{1}{12}$                       d)  $\frac{1}{36}$
14. Two fair six-sided dice are rolled. What is the probability of getting a sum of 7 or 11?  
a)  $\frac{1}{6}$                       b)  $\frac{1}{9}$                       c)  $\frac{1}{12}$                       d)  $\frac{1}{36}$
15. Two fair six-sided dice are rolled. What is the probability of getting a sum greater than 8?  
a)  $\frac{1}{2}$                       b)  $\frac{5}{12}$                       c)  $\frac{1}{3}$                       d)  $\frac{7}{36}$
16. Three fair coins are flipped simultaneously. What is the probability of getting exactly two heads?

a)  $\frac{1}{8}$

b)  $\frac{1}{4}$

c)  $\frac{3}{8}$

d)  $\frac{1}{2}$

17. Three fair coins are flipped simultaneously. What is the probability of getting at least one head?

a)  $\frac{1}{8}$

b)  $\frac{1}{4}$

c)  $\frac{3}{8}$

d)  $\frac{7}{8}$

18. Three fair coins are flipped simultaneously. What is the probability of getting two tails and one head?

a)  $\frac{1}{8}$

b)  $\frac{1}{4}$

c)  $\frac{3}{8}$

d)  $\frac{1}{2}$

## WORKSHEET 7 (QUADRATIC EQUATIONS)

**Solve for x by factorisation**

(a)  $8x^2 - 22x - 21 = 0$

(b)  $3\sqrt{5}x^2 + 25x + 10\sqrt{5} = 0$

(c)  $3x^2 - 2\sqrt{6}x + 2 = 0$

(d)  $2x^2 + ax - a^2 = 0$

(e)  $\sqrt{3}x^2 + 10x + 7\sqrt{3} = 0$

(f)  $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$

(g)  $(x-1)^2 - 5(x-1) - 6 = 0$

## WORKSHEET 8 (POLYNOMIALS & QUADRATIC EQUATIONS)

- Find the quadratic polynomial whose sum of zeroes is 3 and product of zeroes is  $-2$
- Solve the quadratic equation  $2x^2 + ax - a^2 = 0$ .
- Find the non-zero value of k, for which the quadratic equation  $kx^2 + 1 - 2(k-1) + x^2 = 0$  has equal roots. Hence, find the roots of the equation
- Solve the following quadratic equation for x:  
 $9x^2 - 6b^2x - (a^4 - b^4) = 0$
- Solve for x :  $2x^2 + 6\sqrt{3}x - 60 = 0$ .
- The numerator of a fraction is 3 less than its denominator. If 2 is added to both the numerator and the denominator, then sum of the new fraction and original fraction is  $\frac{29}{20}$ . Find the origin fraction.
- To fill a swimming pool, two pipes are to be used. If the pipe of larger diameter is used for 4 hours and the pipe of smaller diameter for 9 hours, only half the pool can be filled. Find how long it would take for each pipe to fill the pool separately, if the pipe of smaller diameter takes 10 hours more than the pipe of large diameter to fill the pool.

## WORKSHEET 9

**Assertion Reasoning Questions –**

- Both (A) and (R) are true and (R) is the correct explanation of (A)
- Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (A) is true but (R) is false
- (A) is false but (R) is true

1. Assertion (A) : The H.C.F. of two numbers is 16 and their product is 3072. Then their L.C.M. = 162.  
Reason (R) : If a and b are two positive integers, then their H.C.F.  $\times$  L.C.M. =  $a \times b$ .

2. Assertion (A) : 2 is a rational number.

Reason (R) : The square root of all positive integers are irrationals

3. Assertion (A) : If  $\text{LCM}(p, q) = 30$  and  $\text{HCF}(p, q) = 5$ , then  $p \times q = 150$ .

Reason (R) :  $\text{LCM of}(a, b) \times \text{HCF of}(a, b) = a \times b$

4. Assertion (A) : 5 is an irrational number.

Reason (R) : If  $m$  is an odd number greater than 1, then  $m$  is irrational.

5. Assertion (A) :  $\pi$  is an irrational number.

Reason (R) : 5 is an irrational number.

## WORKSHEET 10 : LINEAR EQUATIONS

### Assertion Reasoning Questions –

(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

1. Assertion (A) :  $3x + 4y + 5 = 0$  and  $6x + ky + 9 = 0$  represent parallel lines if  $k = 8$ .

Reason (R) :  $a_1x + b_1y + c_1 = 0$  ;  $a_2x + b_2y + c_2 = 0$  represent parallel lines if  $a_1/a_2 = b_1/b_2 \neq c_1/c_2$

2. Assertion (A) :  $x + y - 4 = 0$  and  $2x + ky - 3 = 0$  has no solution, if  $k = 2$ .

Reason (R) :  $a_1x + b_1y + c_1 = 0$ ;  $a_2x + b_2y + c_2 = 0$  are consistent if  $a_1/a_2 \neq b_1/b_2$

3. Assertion (A) : If the system of equations  $2x + 3y = 7$  and  $2ax + (a + b)y = 28$  has infinitely many solutions, then  $2a - b = 0$

Reason (R) : The system of equations  $3x - 5y = 9$  and  $6x - 10y = 8$  has unique solution.

4. Assertion (A) : If a pair of lines are coincident, then we say that pair is consistent and it has a unique solution.

Reason (R) : If a pair of lines are parallel, then the pair has no solution and is called inconsistent pair of equations.

5. Assertion (A) :  $kx + 2y = 5$  and  $3x + y = 1$  have unique solution if  $k = 6$ .

Reason (R) :  $x + 2y = 3$  and  $5x + ky + 7 = 0$  have unique solution, if  $k \neq 10$ .





# **DARSHAN ACADEMY**

## **Subject Enrichment Assignments - 2025**

**CLASS: — X     SUBJECT: SOCIAL SCIENCE**

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### **General Instructions:**

- Submit your assignments in a neatly arranged file with a cover page and table of contents.
- Use A4 sheets and ensure that your handwriting or print is clear and legible.
- Make your work attractive by adding pictures, drawings, or simple borders.
- Complete the work on time and submit it on the first day after the summer vacation.

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### **ASSIGNMENT 1:**

#### **MULTIPLE CHOICE QUESTIONS:**

- Q1. Which of the following is an example of power sharing? (1)
- a) Centralization of power in one hand
  - b) Dictatorship
  - c) Division of power among different levels of government
  - d) Rule by a single party
- Q2. Belgium's power-sharing model provides equal representation to: (1)
- a) Only Dutch-speaking people
  - b) Only French-speaking people
  - c) Both Dutch and French-speaking people
  - d) Only German-speaking people
- Q3. The main reason for power sharing in a democracy is: (1)
- a) To make the government more powerful
  - b) To reduce conflicts and maintain political stability
  - c) To concentrate power in one hand
  - d) To weaken different groups in society
- Q4. In a federal government, power is divided between: (1)
- a) The judiciary and executive
  - b) The union and state governments
  - c) The president and the army
  - d) The legislature and private companies
- Q5. Which of the following is NOT a form of power-sharing? (1)
- a) Horizontal power-sharing
  - b) Vertical power-sharing
  - c) Power-sharing among different social groups
  - d) Power-sharing with foreign governments

#### **CASE STUDY BASED QUESTIONS: (5)**

- Q1. Read the following case and answer the questions that follow:

In a country called Zyland, the government is run by a single dominant party. Minority communities are often left out of decision-making. This has led to frequent protests and social unrest. People demand a more inclusive government where different communities get fair representation.

- i) What kind of power-sharing mechanism would you suggest for Zyland? (1)
- ii) Explain how power-sharing can help resolve social unrest. (2)
- iii) Suggest any two ways in which minorities can be included in governance. (2)

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## ASSIGNMENT 2:

In the questions below there are two statements that are marked as Assertion (A) and the Reason (R). Read the statement and choose the correct answer.

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

Q1. Assertion (A): Resources are vital for human survival as well as for maintaining the quality of life.

Reason (R): It was believed that resources are free gifts of nature.

Q2. Assertion (A): Human beings themselves are essential components of resources.

Reason (R): They transform material available in our environment into resources and use them.

Q3. Assertion (A): In villages there are people with land ownership but there are many who are landless.

Reason (R): Urban people own plots, houses and other property.

Q4. Assertion (A): Planning is the widely accepted strategy for judicious use of resources.

Reason (R): It has importance in a country like India, which has enormous diversity in the availability of resources.

Q5. Assertion (A): Proper discharge and disposal of industrial wastes can reduce land degradation in suburban areas.

Reason (R): In the states of Punjab, Haryana, western Uttar Pradesh, over-irrigation is responsible for land degradation.

Q6. Assertion(A): Land is a natural resource of utmost importance.

Reason (R): It supports natural vegetation, wild life, human life, economic activities, transport and communication systems.

VERY SHORT ANSWER TYPE QUESTIONS:

Q1. Which is the main cause of land degradation in Gujarat, Rajasthan and Madhya Pradesh? How can it be checked?

Q2. Distinguish between Khadar and Bangar soil.

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## ASSIGNMENT 3:

SHORT ANSWER TYPE QUESTIONS:

Q1. 'Efficient means of transport are prerequisites for fast development of the country.' Support the statement with examples. (3)

Q2. 'For development, people look at a mix of goals.' Support the statement with three suitable examples.

(3)

#### CASE STUDY BASED QUESTION:

The idea of development or progress has always been with us. We have aspirations or desires about what we would like to do and how we would like to live. Different people can have different developmental goals. What may be development for one may not be development for the other. It may even be destructive for the other. Each one of us seeks different things. We seek things that are most important for them, i.e. that which can fulfil their aspirations or desires. In fact, at times, two persons or groups of persons may seek different things which are conflicting. A girl expects as much freedom and opportunity as her brother and that he also shares in the household work. Her brother may not like this. Similarly, to get more electricity, industrialists may want more dams. But this may submerge the land and disrupt the lives of people who are displaced – such as tribal. They might resent this and may prefer small check dams or tanks to irrigate their land.

Besides seeking more income, people also seek things like equal treatment, freedom, security and respect of others. All these are important goals. In fact, in some cases these may be more important than more income or more consumption because material goods are not all that you need to live.

- i) Why do different people have different developmental goals? (1)
- ii) Give an example where a situation is development for one but not for the other. (1)
- iii) Besides seeking more income, what other things do people seek? (2)

#### ASSIGNMENT 4:

##### VERY SHORT ANSWER TYPE QUESTIONS:

- Q1. Examine the significance of the Statue of Liberty in Frederic Sorrieu's paintings, "The Dream of Worldwide Democratic and Social Republics." (2)
- Q2. 'Language too played an important role in developing nationalist sentiments.' Explain. (2)
- Q3. What was the importance of the Act of Union 1707? (2)

##### CASE STUDY BASED QUESTIONS:

Read the given extract and answer the following questions:

Secret societies sprang up in many European states to train revolutionaries and spread their ideas. To be revolutionary at this time meant a commitment to oppose monarchical forms that had been established after the Vienna Congress, and to fight for liberty and freedom. Most of these revolutionaries also saw the creation of nation-states as a necessary part of this struggle for freedom. One such individual was the Italian revolutionary Giuseppe Mazzini. He subsequently founded two more underground societies, first, Young Italy in Marseilles, and then, Young Europe in Berne, whose members were like minded young men from Poland, France, Italy and the German states. Mazzini believed that God had intended nations to be the natural units of mankind. So, Italy could not continue to be a patchwork of small states and kingdoms. It had to be forged into a single unified republic within a wider alliance of nations. This unification alone could be the basis of Italian liberty. Following his model, secret societies were set up in Germany, France, Switzerland and Poland. Mazzini's relentless opposition to monarchy and his vision of democratic republics frightened the conservatives. Metternich described him as 'the most dangerous enemy of our social order'.

- Q1. Why secret societies came up in Europe? (1)
- Q2. Who was Giuseppe Mazzini? (1)
- Q3. Name the two organizations found by Giuseppe Mazzini? (2)

## ASSIGNMENT 5:

### MULTIPLE CHOICE QUESTIONS:

Q1. Observe the map which was used during the 19<sup>th</sup> century to display the power of Britain. Which of the following is the map most likely about? (1)



- a) Different kinds of people who are found in Britain.
- b) Sea routes from only Britain to different parts of the world.
- c) Celebrating the British rule over different parts of the world.
- d) People of different countries moving to Britain to lead a better life.

Q2. Study the picture and answer the question that follows:

Which of the following aspect best signifies this image of Germania? (1)



- a) Heroism and justice
- b) Folk and Cultural Tradition
- c) Austerity and Asceticism
- d) Revenge and Vengeance

### VERY SHORT ANSWER TYPE QUESTIONS:

Q1. Why were anti-imperialist movements nationalist? (2)

### SHORT ANSWER TYPE QUESTIONS:

Q1. How had the female figures become an allegory of the nation during the 19<sup>th</sup> century in Europe? Analyse. (3)

Q2. 'Like Germany, Italy too had a long history of political fragmentation.' Explain. (3)

## ASSIGNMENT 6:

### LONG ANSWER TYPE QUESTIONS

Q1. Compare the situation of Belgium and Sri Lanka considering their location, size and cultural aspects. (5)

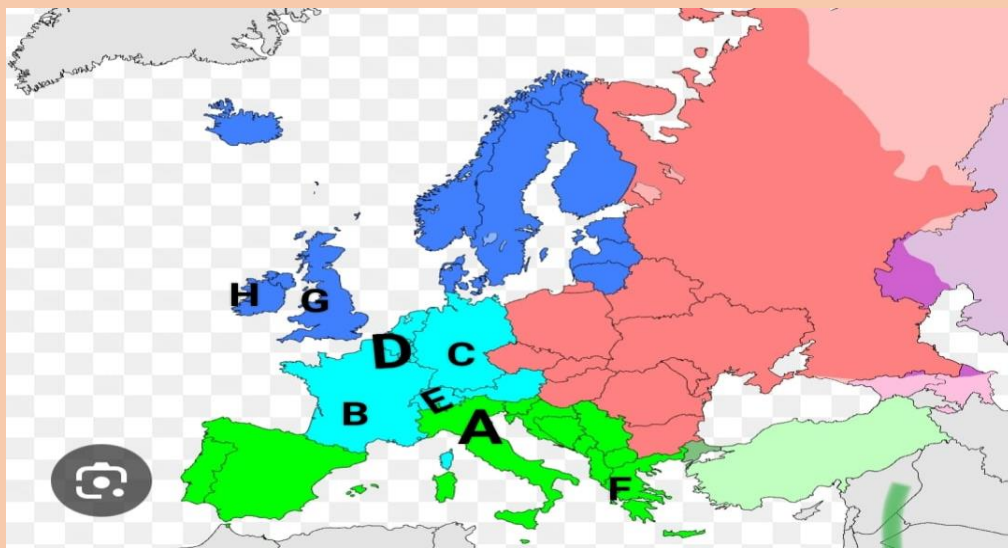
Q2. How majoritarianism has increased the feeling of alienation among the Sri Lankan Tamils? (5)

## ASSIGNMENT 7:

Q1 Mark types of soil on the following map of India with appropriate colour and also make index – (6)



Q2 On the Following map of Europe identify all the points marked as A,B, C, D ...so on. -



Note- Paste the maps in answer sheets

## ASSIGNMENT 8:

Q1 Match the following years with the corresponding event-

(1)

YEAR	EVENT
1797	i.Unification of Germany
1814-1815	ii.Greek struggle of independence
1821	iii.Unification of Italy
1848	iv.Fall of Napoleon; The Vienna peace settlement
1859-1870	v.Napoleon invaded Italy
1866-1871	vi. Artisans, industrial workers & peasants revolted against economic hardships in Europe

- a) (A)-(ii), (B)-(iv), (C)-(v), (D)-(iii), (E)-(vi), (F)-(i)  
 b) (A)-(v), (B)-(iv), (C)-(ii), (D)-(vi), (E)-(iii), (F)-(i)  
 c) (A)-(iv), (B)-(v), (C)-(vi), (D)-(ii), (E)-(i), (F)-(iii)  
 d) (A)-(vi), (B)-(v), (C)-(iv), (D)-(i), (E)-(ii), (F)-(iii)

Q2 Match the countries given with their HDI Rank as according to Human Development Report, UNDP 2023-24. (1)

Column A	Column B
Switzerland	i. 0.540 (164 rank)
India	ii. 0.967 (1 rank)
Pakistan	iii. 0.681 (125 rank)
Bhutan	iv. 0.644 (134 rank)

- a) (A)-(ii), (B)-(iv), (C)-(i), (D)-(iii),  
 a) (A)-(i), (B)-(iii), (C)-(ii), (D)-(vi),  
 b) (A)-(ii), (B)-(iv), (C)-(iii), (D)-(i),  
 c) (A)-(iv), (B)-(ii), (C)-(i), (D)-(iii),

Q3 Read the given data and find out - (3)

- A. children of which state has attained maximum elementary school education?  
 B. Why Kerala has highest literacy rate?  
 C. Why infant mortality rate was higher in Haryana & Bihar?

States	Per Capita Income for 2018-19(in Rs)	Infant mortality rate per 1000 live births(2018)	Literacy rate% 2017-18	Net attendance ratio per 100 persons secondary age 14 & 15 yrs
Haryana	2,36,147	30	82	61
Kerala	2,04,105	7	94	83
Bihar	40,982	32	62	43

Source- Economic Survey 2020-21 NSSO

Q3 Study the table below and answer the questions that follows- (5)

COMPARISON OF TWO COUNTRIES						
Country	Monthly Income of the citizens in 2012 (in rupees)					
	I	II	III	IV	V	Average
Country A	9500	10500	9800	10000	10,200	?
Country B	500	500	500	500	48000	?

- A. Find out the average income for each country?  
 B. What is the conclusion drawn from the above table?

## ASSIGNMENT 9:

Q1 Prepare a or PPT (not more than 7-8 slides) on topic-

- 'Island Expeditions: Exploring the Mysteries of Lakshadweep and Andaman Nicobar - A Journey Through Research and Discovery' -

Research about the following topics about the Island groups (Lakshadweep and Andaman Nicobar) of India and prepare Project file (approx. 4-5 pages) –

- Flora and Fauna
- Tourist attractions
- Ratio of tribal population and tribal culture



Q2 Create a poster with slogan \ cartoonist representation on any one of the following topics on A-3 size sheet

- A. Electoral Politics in India
- B. Any social issue e.g. gender inequality, Communalism or Caste inequalities
- C. Democracy

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### ASSIGNMENT 10:

Q1 - 'Empowerment Through Knowledge: Choose Your Cause - Project File Creation'-

Prepare a Project File on any of the following topics-

1.**Consumer Rights**- The students must incorporate about following key matter:

- A. Enactment of COPRA 1986 and its benefits,
- B. Various Consumer Rights, Role of WTO in protection of Consumers

2.**Social issues**- Social issues in Indian Society, Reforms initiated to combat the social issues, Role of Popular leaders and movements.

3.Sustainable development- "Evaluate the impact of renewable energy sources on sustainable development in India. What challenges and opportunities do they present for economic growth and environmental conservation"?

Guidelines for the research, you can explore:

- A. How renewable energy contribute towards sustainability e.g. Solar, wind, hydro energy. Etc
- B. Government policy in promoting renewable energy
- C. Challenges like high costs, land acquisition & technological gaps

How renewable energy creates jobs& supports economic growth

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### Conclusion & Self-Reflection

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#### Presentation Tips:

- Use a **file folder or spiral bind** to organize your assignment neatly.
- Make the headings bold and underlined.
- Use proper margins and spacing for neatness.
- Illustrate your work wherever possible.

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Happy Learning & Have a Great Summer! 🌞 📖



# **DARSHAN ACADEMY**

## **Subject Enrichment Assignments - 2025**

**CLASS: — X    SUBJECT: SCIENCE**

### **General Instructions:**

- Submit your assignments in a neatly arranged file with a cover page and table of contents.
- Use A4 sheets and ensure that your handwriting or print is clear and legible.
- Make your work attractive by adding pictures, drawings, or simple borders.
- Complete the work on time and submit it on the first day after the summer vacation.

### **LIFE PROCESSES**

#### **SECTION-A**

Choose the correct option out of these for all Assertion-Reason questions.

- A) Both assertion and reason are correct, and the reason is the correct explanation of the assertion.  
B) Both assertion and reason are correct, but the reason is not the correct explanation of the assertion.  
C) The assertion is correct, but the reason is incorrect.  
D) The assertion is incorrect, but the reason is correct.

1. Assertion: Respiration in humans takes place in the mitochondria of the cells.

Reason: Mitochondria are the powerhouse of the cell where energy is produced through cellular respiration.

2. Assertion: Plants take in carbon dioxide during the day for photosynthesis.

Reason: The stomata in plants are open during the day for the exchange of gases like carbon dioxide and oxygen.

3. Assertion: The process of digestion in humans begins in the stomach.

Reason: The stomach secretes digestive enzymes like pepsin and hydrochloric acid to break down food.

4. Assertion: The process of transpiration helps in the absorption of water in plants.

Reason: During transpiration, water vapor exits through the stomata, creating a suction force that draws water from the roots to the leaves.

5. Assertion: Chlorophyll is essential for photosynthesis in plants.

Reason: Chlorophyll absorbs sunlight, which provides the energy needed for the synthesis of glucose in plants.

6. Assertion: Respiration in humans takes place in the mitochondria of the cells.

Reason: Mitochondria are the powerhouse of the cell where energy is produced through cellular respiration.

7. Assertion: Plants take in carbon dioxide during the day for photosynthesis.

Reason: The stomata in plants are open during the day for the exchange of gases like carbon dioxide and oxygen.

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Reason: During transpiration, water vapor exits through the stomata, creating a suction force that draws water from the roots to the leaves.

10. Assertion: Chlorophyll is essential for photosynthesis in plants.

Reason: Chlorophyll absorbs sunlight, which provides the energy needed for the synthesis of glucose in plants.

### **SECTION-B**

Read the given information and then answer the related questions.

1. A 10th-grade student, Neha, observed that when a leaf is boiled in water and then immersed in iodine solution, it turns blue-black. However, when the same leaf is kept in a dark room for 48 hours and then tested, no colour change occurs.

Explain the physiological processes that Neha observed and why the leaf in the dark room did not change colour when tested with iodine solution.

#### **2. The Role of Enzymes in Digestion**

A student observes that enzymes in the human digestive system play a crucial role in breaking down food into simpler molecules for absorption. He wonders how different enzymes function in various parts of the digestive system.

a) What is the role of enzymes in the digestive process, and how do they affect the rate of chemical reactions?

b) Describe the function of amylase in the mouth and its importance in digestion.

c) How does the pH level in the stomach affect the enzyme pepsin's activity?

d) What could happen if there was a deficiency of digestive enzymes in the human body?

3. A person with a disease that affects the small intestine's ability to absorb nutrients suffers from malnutrition despite eating sufficient food.

a) What is the role of the small intestine in the digestion and absorption of food?

b) How are villi and microvilli involved in nutrient absorption in the small intestine?

c) What could happen if the small intestine's absorption process is disrupted?

d) What are the potential treatments or lifestyle changes that can help improve nutrient absorption in such cases?

4. A student is studying how plants transport water from the roots to the leaves and wonders how this process works without the help of a pump.

a) Explain the process of transpiration in plants.

b) How does water move through the xylem vessels in plants?

c) What role do stomata play in the movement of water in plants?

d) What factors affect the rate of water absorption and transport in plants?

#### **5. The Excretory System and Kidney Function**

A person is suffering from kidney failure, and the doctor mentions the importance of the kidneys in filtering waste from the blood.

a) Describe the structure and function of the kidneys in the excretory system.

b) What is the role of nephrons in the filtration process of the kidneys?

c) How do kidneys regulate water and salt balance in the body?

d) What complications can arise if the kidneys stop functioning properly?

## **CHEMICAL REACTIONS AND EQUATIONS**

### **SECTION-A**

Choose the correct option out of these for all Assertion-Reason questions.

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

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

C) The assertion is correct, but the reason is incorrect.

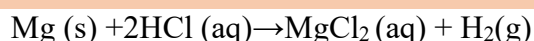
D) The assertion is incorrect, but the reason is correct.

1. Assertion: A chemical reaction is always accompanied by the formation of new substances.  
Reason: During a chemical reaction, the reactants undergo a rearrangement of atoms to form new products.
2. Assertion: A combination reaction is a type of exothermic reaction.  
Reason: In a combination reaction, two or more reactants combine to form a single product, and energy is released in the form of heat.
3. Assertion: In a displacement reaction, a more reactive element displaces a less reactive element from its compound.  
Reason: The reactivity series of metals is used to determine the order of reactivity of metals.
4. Assertion: The reaction between an acid and a base is called a neutralization reaction.  
Reason: In a neutralization reaction, the hydrogen ions from the acid react with the hydroxide ions from the base to form water.
5. Assertion: In a decomposition reaction, a single reactant breaks down to form two or more products.  
Reason: Decomposition reactions usually require energy input in the form of heat, light, or electricity to break the bonds in the reactant.

### SECTION-B

Read the given information and then answer the related questions.

1. The Reaction of Magnesium with Hydrochloric Acid Magnesium metal reacts with hydrochloric acid to produce magnesium chloride and hydrogen gas. The reaction is represented as:



- a) Identify and explain the type of reaction taking place.  
a) Write the balanced chemical equation for the reaction.  
b) What is the role of hydrochloric acid in the reaction?

2. Decomposition of Calcium Carbonate

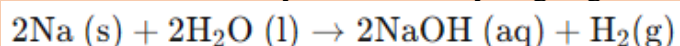
Calcium carbonate undergoes thermal decomposition to form calcium oxide and carbon dioxide.



- a) What type of chemical reaction is this? Explain.  
b) Write the balanced chemical equation for this reaction.  
c) Which gas is released during the decomposition of calcium carbonate?

3. The Reaction of Sodium with Water

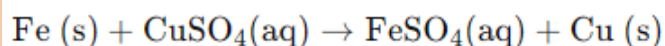
Sodium metal reacts with water to form sodium hydroxide and hydrogen gas.



- a) Identify and explain the type of reaction taking place.  
b) Write the balanced chemical equation for the reaction.  
c) What happens when the reaction takes place?

4. The Reaction Between Iron and Copper Sulphate.

Iron reacts with copper sulphate solution to displace copper.



- a) What type of reaction is this?  
b) Write the balanced chemical equation for this reaction.  
c) What is the role of iron in this reaction?

### 5. The Reaction of Zinc with Sulfuric Acid

Zinc reacts with sulfuric acid to form zinc sulphate and hydrogen gas.

- Identify and explain the type of reaction taking place.
- Write the balanced chemical equation for the reaction.
- Which product is formed from the acid?

## **LIGHT-REFLECTION AND REFRACTION**

### **SECTION-A**

Choose the correct option out of these for all Assertion-Reason questions.

- Both assertion and reason are correct, and the reason is the correct explanation of the assertion.
- Both assertion and reason are correct, but the reason is not the correct explanation of the assertion.
- The assertion is correct, but the reason is incorrect.
- The assertion is incorrect, but the reason is correct

1. Assertion: The angle of incidence is always equal to the angle of reflection.

Reason: The law of reflection states that the angle of incidence is always equal to the angle of reflection, and both angles lie in the same plane.

2. Assertion: In a concave mirror, the image formed is always real and inverted.

Reason: Concave mirrors converge light rays to a point in front of the mirror, forming a real image.

3. Assertion: When light passes from air into water, it bends towards the normal.

Reason: Light travels slower in water than in air, which causes the light to refract towards the normal.

4. Assertion: A convex lens can form both real and virtual images.

Reason: A convex lens converges light rays and can form real images when the object is placed beyond the focal point, and virtual images when the object is placed between the lens and its focal point.

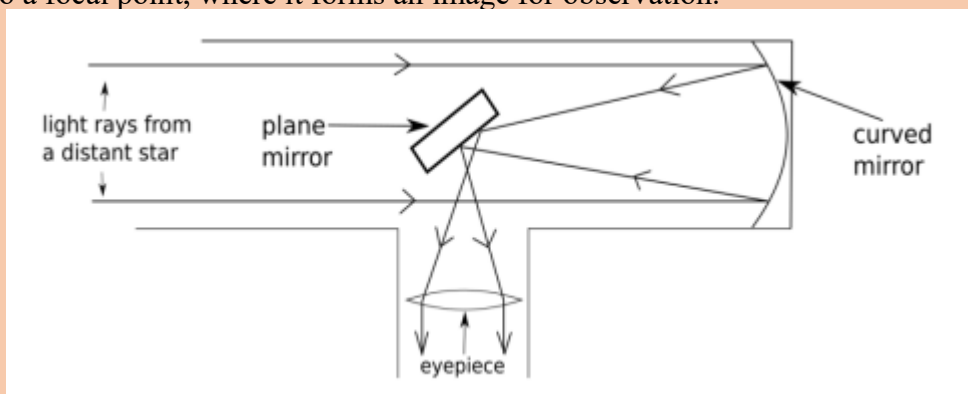
5. Assertion: The refractive index of a medium is always greater than or equal to 1.

Reason: The refractive index is the ratio of the speed of light in a vacuum to the speed of light in the medium. Since light travels slower in any medium compared to vacuum, the refractive index is always greater than or equal to 1.

### **SECTION-B**

Read the given information and then answer the related questions.

1. The given image is that of a reflecting telescope. Reflecting telescopes revolutionised our ways of looking into the sky. They employ mirrors to gather and focus light, rather than relying solely on lenses as in their refracting counterparts. These telescopes utilise precisely shaped and polished mirrors to capture incoming light and reflect it to a focal point, where it forms an image for observation.



- What kind of image of the star is seen by the observer at the eyepiece?
- What kind of mirror is used in this reflecting telescope?

- c) Explain with reason what kind of optical device (type of lens or mirror) that is used at the eyepiece.
- d) What is the role of the plane mirror in the telescope?

## 2. Focal Length of a Convex Lens

A convex lens has a focal length of 20 cm. An object is placed at a distance of 30 cm from the lens.

- a) Find the image distance using the lens formula.
- b) Determine the magnification of the image.

3. A concave mirror has a focal length of 15 cm. An object is placed 40 cm in front of the mirror.

- a) Find the image distance using the mirror formula.
- b) Determine the nature of the image formed.

## **ART INTEGRATED PROJECT**

### **ART INTEGRATED PROJECT ON "LIFE PROCESSES" – ANDAMAN & NICOBAR ISLANDS AND LAKSHADWEEP**

#### **HINTS FOR DOING THE PROJECT**

**PROJECT TITLE:** Life Processes in the Ecosystems of Andaman & Nicobar Islands and Lakshadweep

**SUBJECT:** Science

**TOPIC:** Life Processes

**OBJECTIVE:** To understand the life processes of living organisms in the unique ecosystems of the Andaman & Nicobar Islands and Lakshadweep, and explore how these processes are interlinked with the environment.

The project integrates art to highlight the biodiversity and life forms of these regions, including human and animal life processes.

#### **PROJECT COMPONENTS:**

##### 1. Introduction to Life Processes (Science Concept)

- a) The student will begin by explaining the 7 essential life processes: Nutrition, Respiration, Transportation, Excretion, Growth, Reproduction, and Sensitivity.
- b) Relate these processes to living organisms in general.

##### 2. Exploring Ecosystems in Andaman & Nicobar Islands and Lakshadweep

- a) Andaman & Nicobar Islands: Discuss the biodiversity, marine life (coral reefs, mangroves), and terrestrial organisms (flora and fauna like sea turtles, coconut trees, etc.). Focus on unique adaptations of species to island life.
- b) Lakshadweep: Discuss its tropical coral islands and the marine ecosystem, highlighting how marine life such as fish, coral reefs, and algae perform life processes in water.
- c) Include information about the influence of the geographical location and climate on life processes.

#### **ART INTEGRATION:**

**CREATION OF A COLLAGE:** Students can create a visual collage or poster using drawing, painting, and cut-out magazine images depicting the ecosystems of Andaman & Nicobar Islands and Lakshadweep. The collage should include:  
Marine life (fish, coral reefs, and turtles)



Terrestrial life (flora like coconut trees, and fauna like birds, monkeys, and reptiles)  
Unique life processes such as marine respiration (gills), photosynthesis in plants, and adaptation of creatures to the environment.

**MURAL OR DIORAMA:** Create a 3D model or diorama representing the biodiversity and life processes in these ecosystems, such as the coral reef and forest life. The model should include:  
Various marine species (fish, crabs, plankton) showing different life processes.  
Terrestrial animals (coconut trees, monkeys, and birds) with illustrations of their food chain and processes like respiration and nutrition.

**INTERACTIVE PRESENTATION:** Students can use artwork to make an interactive presentation (using either PowerPoint or posters) to explain life processes in both ecosystems.

**ANALYSIS:** Students will present how different organisms in these ecosystems perform life processes and adapt to the environment, including:

**Nutrition:** What marine organisms (like corals, fish, and plankton) obtain nutrients in the ocean and how terrestrial organisms (like the trees, animals) obtain food.

**Respiration:** Highlight the process of respiration in aquatic animals and land animals in the islands, including the unique adaptations of species.

**Excretion and Adaptation:** Discuss how animals excrete waste in both the ocean and on land, focusing on adaptations like salt glands in sea birds and fish.

**Growth and Reproduction:** Highlight the reproductive cycles of marine animals like sea turtles and coral reproduction, as well as the growth patterns of plants and animals in both environments.  
Students can also reflect on the human influence in these areas, including conservation efforts and the impact of tourism on local ecosystems.

**Conclusion:** The project will culminate in a presentation of the collage, diorama, or mural, explaining the life processes in the ecosystems of Andaman & Nicobar Islands and Lakshadweep. This will help students better understand the topic of life processes and how it applies to various environments, while also allowing them to engage creatively through art integration.