



***JINDAL ADARSH GRAMYA
BHARTI HR. SEC. SCHOOL,
KIRODIMAL NAGAR***

UDISE NO. – 22041508916

AFFILATION NO. – 3330416

SCHOOL CODE - 16039

***SUMMER VACATION
HOLIDAY HOME WORK***

SESSION – 2025- 26

CLASS - X



SUBJECT - ENGLISH

1. Read a story book or short novel and do write its BOOK REVIEW properly with the theme and summary, characterization etc.

2. DIARY WRITING (any one memorable day of Summer Break)

3. Read any book and summaries it. The summary must be in the following order.

**** General information about the book***

**** Author's description***

**** Characters' description***

**** Summary of the Story Moral/What you get from the story***

Include different pictures related to text (paste or draw)

INSTRUCTIONS

The project/assignment is to be done in colorful bordered project paper (lining page).

****Cover Page*: Handmade Cover (using chart paper)***

Include your name, class, subject and key points of the project.

Make a well decorated file to the best of your creativity.

SUBJECT - SANSKRIT

सामान्य निर्देशाः —

1. उत्तरलेखनात् पूर्वं प्रश्नस्य क्रमांकः अवश्यं लेखनीयः ।
2. सर्वेषां प्रश्नानाम् उत्तराणि संस्कृतेन लेखनीयानि ।
3. सर्वेषां प्रश्नानाम् उत्तराणि परियोजनासंचिकायां (Project file) लिखन्तु ।
4. प्रश्नानाम् निर्देशाः ध्यानेन अवश्यं पठनीयाः ।

1. समासस्य अर्थं व्याख्याय तत्पुरुष , कर्मधारय एवं बहुब्रीहि समासस्य स्पष्टं कुरु ।

2. कृत , तद्धित एवं स्त्री प्रत्ययः प्रकाराः उदाहरणैः सह लिखन्तु ।

3. परा , प्र , अप , सम , अनु , अव , दुर् , अधि , अति , सु , उपसर्गेभ्यः शब्दान्

कृत्वा वाक्येषु प्रयोगं कुर्वन्तु ।

4. कर्तृवाच्यः एवं भाववाच्यः अर्थं स्पष्टं कृत्वा उदाहरण सहितं लिखतु ।

5. संस्कृत भाषायां अनुवादं कुरु —

(क) संस्कृत प्राचीनतमं भाषा है ।

(ख) यह नदियों में सबसे पवित्र है ।

(ग) गाँव के दोनों ओर वृक्ष हैं ।

(घ) भारत हमारी जन्मभूमि है ।

(ङ.) कालिदास संस्कृत के महान कवि थे ।

6. भवान् अरविन्दः । ग्रीष्मावकाशे भ्रमणाय स्वमित्रं प्रति पत्रम् लिखतु ।

SUBJECT – MATHEMATICS

MATHEMATICS

1 : Real Numbers

1. HCF of 144 and 198 is [2020] ...[1M]
(a) 9 (b) 18
(c) 6 (d) 12
2. 225 can be expressed as [2020] ...[1M]
(a) 5×3^2 (b) $5^2 \times 3$
(c) $5^2 \times 3^2$ (d) $5^3 \times 3$
3. The total number of factors of a prime number is [2020] ...[1M]
(a) 1 (b) 0
(c) 2 (d) 3
4. The HCF and the LCM of 12, 21, 15 respectively are [2020] ...[1M]
(a) 3, 140 (b) 12, 420
(c) 3, 420 (d) 420, 3
5. HCF of 92 and 152 is [2021] ...[1M]
(a) 4 (b) 19
(c) 23 (d) 57
6. HCF of two consecutive even numbers is [2021] ...[1M]
(a) 0 (b) 1
(c) 2 (d) 4
7. The (HCF \times LCM) for the numbers 50 and 20 is [2021] ...[1M]
(a) 1000 (b) 50
(c) 100 (d) 500
8. For which natural number n , 6^n ends with digit zero? [2021] ...[1M]
(a) 6 (b) 5
(c) 0 (d) None
9. The exponent of 5 in the prime factorisation of 3750 is [2021] ...[1M]
(a) 3
(b) 4
(c) 5
(d) 6
10. What is the greatest possible speed at which a girl can walk 95 m and 171 m in an exact number of minutes? [2021] ...[1M]
(a) 17 m/min (b) 19 m/min
(c) 23 m/min (d) 13 m/min
11. Three alarm clocks ring their alarms at regular intervals of 20 min, 25 min and 30 min respectively. If they first beep together at 12 noon, at what time will they beep again for the first time? [2021] ...[1M]
(a) 4 : 00 pm (b) 4 : 30 pm
(c) 5 : 00 pm (d) 5 : 30 pm
12. The greatest number which when divides 1251, 9377 and 15628 leaves remainder 1, 2, and 3 respectively is [2021] ...[1M]
(a) 575 (b) 450
(c) 750 (d) 625
13. If a and b are two coprime numbers, then a^3 and b^3 are [2021] ...[1M]
(a) Coprime (b) Not coprime
(c) Even (d) Odd
14. If n is a natural number, then $2(5^n + 6^n)$ always ends with [2021] ...[1M]
(a) 1 (b) 4
(c) 3 (d) 2
15. The LCM of two numbers is 2400. Which of the following CANNOT be their HCF? [2021] ...[1M]
(a) 300 (b) 400
(c) 500 (d) 600
16. (HCF \times LCM) for the numbers 30 and 70 is [2023] ...[1M]
(a) 2100
(b) 21
(c) 210
(d) 70

17. The number $(5 - 3\sqrt{5} + \sqrt{5})$ is [2023] ...[1M]

(a) an integer
(b) a rational number
(c) an irrational number
(d) a whole number

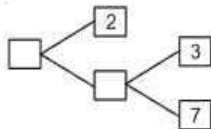
18. The ratio of HCF to LCM of the least composite number and the least prime number is:

[2023] ...[1M]

(a) 1 : 2
(b) 2 : 1
(c) 1 : 1
(d) 1 : 3

19. Complete the missing entries in the following factor tree:

[2008] ...[1M]



20. Find the $(\text{HCF} \times \text{LCM})$ for the numbers 100 and 190. [2009] ...[1M]

21. What is the HCF of smallest prime number and the smallest composite number? [2018] ...[1M]

22. Given that $\sqrt{2}$ is irrational, prove that $(5 + 3\sqrt{2})$ is an irrational number. [2018] ...[2M]

23. Two numbers are in the ratio 2 : 3 and their LCM is 180. What is the HCF of these numbers? [2023] ...[2M]

24. Prove that $3 + \sqrt{2}$ is an irrational number.

[2009] ...[3M]

25. Prove that $2 - 3\sqrt{5}$ is an irrational number.

[2010] ...[3M]

26. Find HCF and LCM of 404 and 96 and verify that $\text{HCF} \times \text{LCM} = \text{Product of the two given numbers}$.

[2018] ...[3M]

27. Prove that $\sqrt{2}$ is an irrational number.

[2019] ...[3M]

28. Given that $\sqrt{3}$ is an irrational number, show that $(5 + 2\sqrt{3})$ is an irrational number.

[2020] ...[3M]

OR

An army contingent of 612 members is to march behind an army band of 48 members in a parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march?

[2020] ...[3M]

29. Prove that $\sqrt{3}$ is an irrational number.

[2023] ...[3M]

30. Khushi wants to organize her birthday party. Being health conscious, she decided to serve only fruits in her birthday party. She bought 36 apples and 60 bananas and decided to distribute fruits equally among all.



Based on the above information, answer the following questions :

- (i) How many guests Khushi can invite at the most? [2023] ...[1M]
(ii) How many apples and bananas will each guest get? [2023] ...[1M]
(iii) (A) If Khushi decides to add 42 mangoes, how many guests Khushi can invite at the most? [2023] ...[2M]

OR

- (B) If the cost of 1 dozen of bananas is ₹60, the cost of 1 apple is ₹15 and cost of 1 mango is ₹20, find the total amount spent on 60 bananas, 36 apples and 42 mangoes.

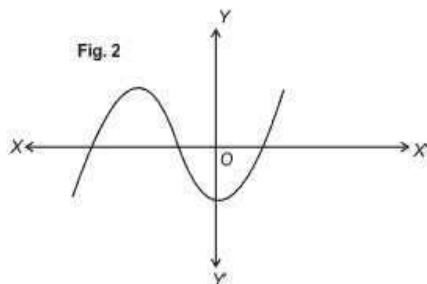
[2023] ...[2M]

2 : Polynomials

1. If $(x + a)$ is a factor of $2x^2 + 2ax + 5x + 10$, find a . [2008] ...[1M]
2. If 1 is a zero of the polynomial $p(x) = ax^2 - 3(a-1)x - 1$, then find the value of a . [2009] ...[1M]
3. If α, β are the zeroes of a polynomial, such that $\alpha + \beta = 6$ and $\alpha\beta = 4$, then write the polynomial. [2010] ...[1M]
4. If one zero of a quadratic polynomial $(kx^2 + 3x + k)$ is 2, then the value of k is [2020] ...[1M]

- (a) $\frac{5}{6}$ (b) $-\frac{5}{6}$
(c) $\frac{6}{5}$ (d) $-\frac{6}{5}$

5. The graph of a polynomial is shown in Fig. 2, then the number of its zeroes is [2020] ...[1M]



- (a) 3 (b) 1
(c) 2 (d) 4
6. If one of the zeroes of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is [2020] ...[1M]

- (a) 10 (b) -10
(c) -7 (d) -2

7. The quadratic polynomial, the sum of whose zeroes is -5 and their product is 6, is [2020] ...[1M]

- (a) $x^2 + 5x + 6$
(b) $x^2 - 5x + 6$
(c) $x^2 - 5x - 6$
(d) $-x^2 + 5x + 6$

8. A quadratic polynomial having sum and product of its zeroes as 5 and 0 respectively, is [2021] ...[1M]

- (a) $x^2 + 5x$ (b) $2x(x - 5)$
(c) $5x^2 - 1$ (d) $x^2 - 5x + 5$

9. Zeroes of a quadratic polynomial $x^2 - 5x + 6$ are [2021] ...[1M]

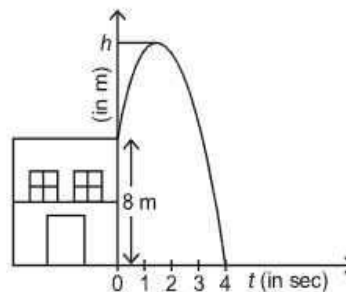
- (a) -5, 1 (b) 5, 1
(c) 2, 3 (d) -2, -3

10. The zeroes of quadratic polynomial $x^2 + 99x + 127$ are [2021] ...[1M]

- (a) Both negative
(b) Both positive
(c) One positive and one negative
(d) Reciprocal of each other

Case Study Based Questions (Q.11 to Q.15) : Sukriti throws a ball upwards, from a rooftop which is 8 m high from ground level. The ball reaches to some maximum height and then returns and hit the ground. If height of the ball at time t (in sec) is represented by $h(m)$, then equation of its path is given as $h = -t^2 + 2t + 8$

Based on above information, answer the following:



11. The maximum height achieved by ball is [2021] ...[1M]

- (a) 7 m (b) 8 m
(c) 9 m (d) 10 m

12. The polynomial represented by above graph is [2021] ...[1M]

- (a) Linear polynomial
(b) Quadratic polynomial
(c) Constant polynomial
(d) Cubic polynomial

13. Time taken by ball to reach maximum height is
[2021] ...[1M]

(a) 2 sec. (b) 4 sec.
(c) 1 sec. (d) 2 min.

14. Number of zeroes of the polynomial whose graph is given, is [2021] ...[1M]

(a) 1 (b) 2
(c) 0 (d) 3

15. Zeroes of the polynomial are [2021] ...[1M]

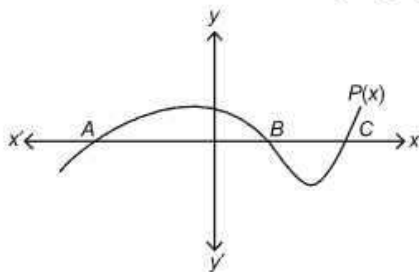
(a) 4 (b) -2, 4
(c) 2, 4 (d) 0, 4

16. The graph of a polynomial $P(x)$ cuts the x -axis at 3 points and touches it at 2 other points. The number of zeroes of $P(x)$ is [2021] ...[1M]

(a) 1 (b) 2
(c) 3 (d) 5

17. In figure, the graph of a polynomial $P(x)$ is shown. The number of zeroes of $P(x)$ is

[2021] ...[1M]



(a) 1 (b) 2
(c) 3 (d) 4

18. A quadratic polynomial, the product and sum of whose zeroes are 5 and 8 respectively is

[2021] ...[1M]

(a) $k[x^2 - 8x + 5]$ (b) $k[x^2 + 8x + 5]$
(c) $k[x^2 - 5x + 8]$ (d) $k[x^2 + 5x + 8]$

19. If $x - 1$ is a factor of the polynomial $p(x) = x^3 + ax^2 + 2bx$ and $a + b = 4$, then [2021] ...[1M]

(a) $a = 5, b = -1$
(b) $a = 9, b = -5$
(c) $a = 7, b = -3$
(d) $a = 3, b = 1$

20. If α, β are the zeroes of the quadratic polynomial $p(x) = x^2 - (k + 6)x + 2(2k - 1)$, then the value

of k , if $\alpha + \beta = \frac{1}{2}\alpha\beta$, is [2021] ...[1M]

(a) -7 (b) 7
(c) -3 (d) 3

21. If $p(x) = x^2 + 5x + 6$, then $p(-2)$ is [2023] ...[1M]

(a) 20 (b) 0
(c) -8 (d) 8

22. A quadratic polynomial whose sum and product of zeroes are 2 and -1 respectively is

[2023] ...[1M]

(a) $x^2 + 2x + 1$ (b) $x^2 - 2x - 1$
(c) $x^2 + 2x - 1$ (d) $x^2 - 2x + 1$

23. If α, β are zeroes of the polynomial $x^2 - 1$, then the value of $(\alpha + \beta)$ is [2023] ...[1M]

(a) 2 (b) 1
(c) -1 (d) 0

24. If α, β are the zeroes of the polynomial

$p(x) = 4x^2 - 3x - 7$, then $\left(\frac{1}{\alpha} + \frac{1}{\beta}\right)$ is equal to: [2023] ...[1M]

(a) $\frac{7}{3}$ (b) $-\frac{7}{3}$
(c) $\frac{3}{7}$ (d) $-\frac{3}{7}$

25. If one zero of the polynomial $p(x) = 6x^2 + 37x - (k - 2)$ is reciprocal of the other, then find the value of k . [2023] ...[2M]

26. Find the value of k such that the polynomial $x^2 - (k + 6)x + 2(2k - 1)$ has sum of its zeros equal to half of their product. [2019] ...[3M]

27. If α and β are the zeroes of the polynomial $f(x) = x^2 - 4x - 5$, then find the value of $\alpha^2 + \beta^2$.

[2020] ...[3M]

28. Find a quadratic polynomial whose zeroes are reciprocals of the zeroes of the polynomial $f(x) = ax^2 + bx + c$, $a \neq 0, c \neq 0$. [2020] ...[3M]

29. If α, β are zeroes of the quadratic polynomial $x^2 - 5x + 6$, form another quadratic polynomial

whose zeroes are $\frac{1}{\alpha}, \frac{1}{\beta}$. [2023] ...[3M]



SUBJECT - SCIENCE

Physics

Chapter: Light - Reflection and Refraction

1. Concept Notes

Write short notes (in your own words) on:

- Reflection of light**
- Laws of reflection**
- Refraction of light**
- Laws of refraction**
- Refractive index**

(Add neat and properly labeled diagrams wherever needed.)

2. Diagram Practice

Draw and label the following diagrams neatly:

- Image formation by a concave mirror (for different object positions)**
- Image formation by a convex mirror**
- Image formation by a convex lens and a concave lens**
- Ray diagrams showing refraction through a glass slab**

3. Project/Model Work

Create a simple working model showing reflection using plane mirrors (example: a periscope).

4. Application-Based Research

Research and list 5 real-life applications each of:

- 
- Concave mirrors
 - Convex mirrors
 - Lenses (convex and concave)

Biology

Chapter: Life Processes

1. Notes Preparation

Prepare complete notes focusing on the following topics:

- Nutrition in plants and animals
- Respiration (aerobic and anaerobic)

2. NCERT Question Practice

Solve all NCERT questions of the chapter Life Processes in your Science notebook.

3. Diagram Practice

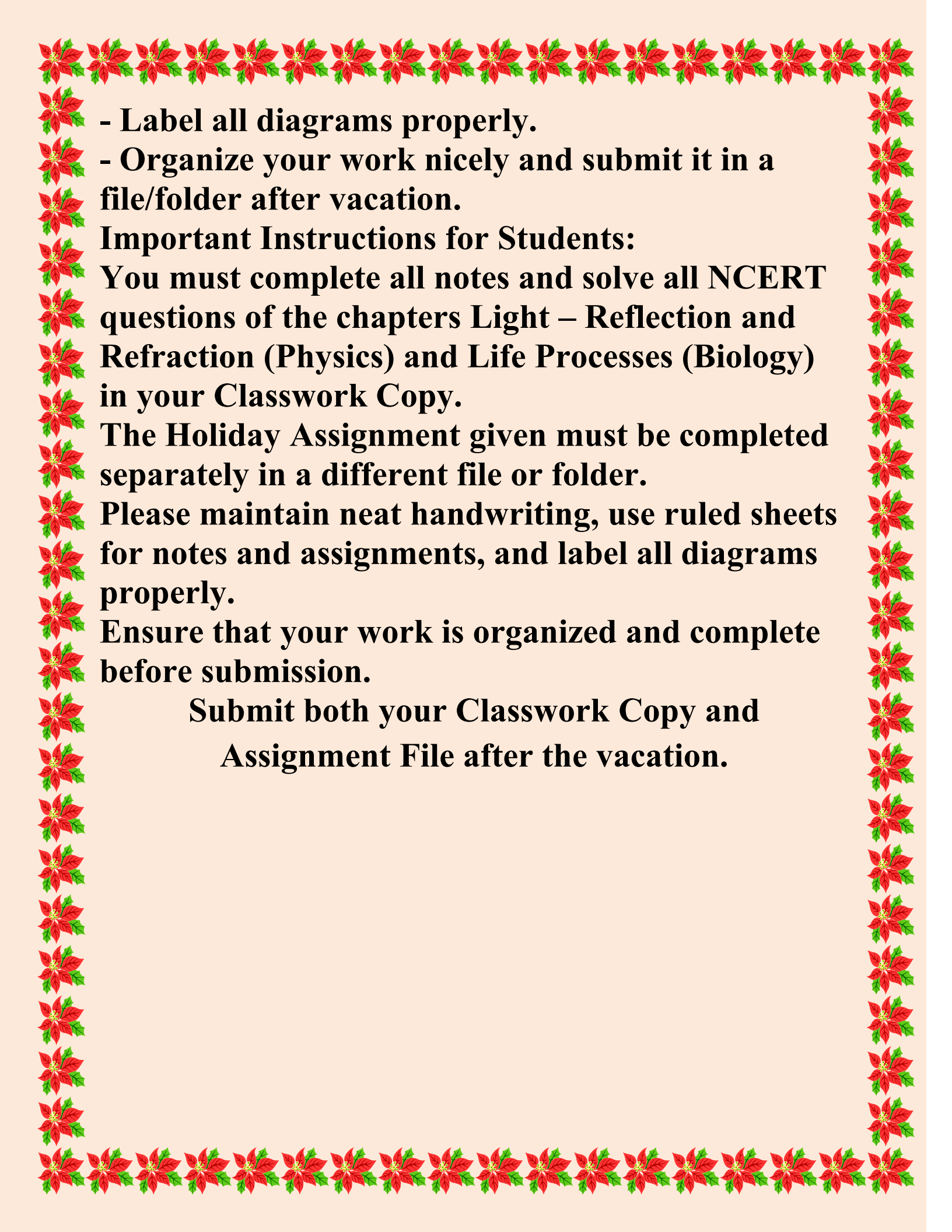
Draw, label, and practice the following important diagrams:

- Human digestive system
- Human respiratory system
- Cross-section of a leaf (showing photosynthesis)
- Chloroplast and stomata

(All diagrams should be neat, colored if possible, and properly labeled.)

General Instructions:

- Write in neat handwriting.
- Use ruled sheets or notebooks for solving and note-making.

- 
- Label all diagrams properly.**
 - Organize your work nicely and submit it in a file/folder after vacation.**

Important Instructions for Students:

You must complete all notes and solve all NCERT questions of the chapters Light – Reflection and Refraction (Physics) and Life Processes (Biology) in your Classwork Copy.

The Holiday Assignment given must be completed separately in a different file or folder.

Please maintain neat handwriting, use ruled sheets for notes and assignments, and label all diagrams properly.

Ensure that your work is organized and complete before submission.

Submit both your Classwork Copy and Assignment File after the vacation.

SUBJECT - SOCIAL SCIENCE

- 1. Cover page - Title, school details, details of student .***
- 2. Statement of purpose/objective***
- 3. Acknowledgement***
- 4. Certificate of completion under the guidance of the teacher.***
- 5. Action plan for the project.***
- 6. Introduction***
- 7. Materials - questionnaires for interview, report***
- 8. 800 - 1000 words report***
- 9 • Student reflection***
- 10. photographs /graphs/ drawings***
- 11. Bibliography / list of resources.***

Note -

- 1) Cover page should be Handmade in project paper.***
- 2) Colourful sheet may use.***
- 3) Decoration / Creativity should be according to the project.***
- 4) All Writing work should be in hand written.***

History

<i>Chapters</i>	<i>Map Items</i>
<i>Chapter - 2 Nationalism in India (1918-1930)</i>	<i>Locating and Labeling / Identification</i> <i>1. Indian National Congress Sessions:</i> <i>a. Calcutta (Sep. 1920)</i> <i>b. Nagpur (Dec. 1920)</i> <i>c. Madras (1927)</i> <i>2. Important Centres of Indian National Movement</i> <i>a. Champaran (Bihar) - Movement of Indigo Planters</i> <i>b. Kheda (Gujarat) - Peasant Satyagrah</i> <i>c. Ahmedabad (Gujarat) - Cotton Mill Workers</i>

Satyagraha

d. Amritsar (Punjab) - Jallianwala Bagh Incident

e. Dandi (Gujarat) - Civil Disobedience Movement

Geography

Chapter 1: Resources and Development

(Identification only)

a. Major soil Types

Chapter 3: Water Resources

(Locating and Labelling)

Dams:

a. Salal

b. Bhakra Nangal

c. Tehri

d. Rana Pratap Sagar

e. Sardar Sarovar

f. Hirakud

g. Nagarjuna Sagar

h. Tungabhadra

Chapter 4: Agriculture

(Identification only)

a. Major areas of Rice and Wheat

b. Largest/Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton, and Jute

Chapter 5: Minerals and Energy Resources

Minerals (Identification only)

1. Iron Ore mines

a. Mayurbhanj

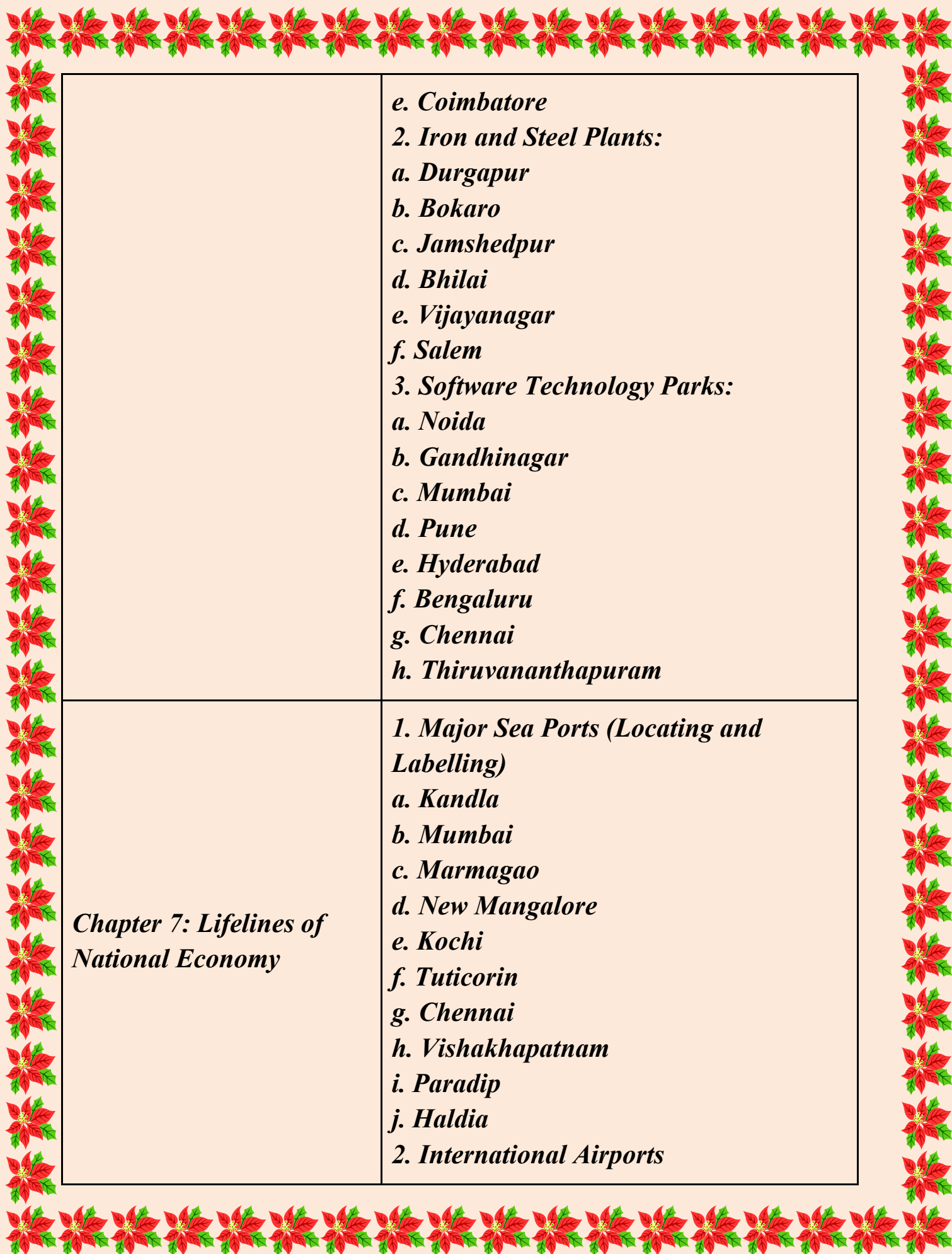
b. Durg

c. Bailadila

d. Bellary



	<p><i>e. Kudremukh</i></p> <p><i>2. Coal Mines</i></p> <p><i>a. Raniganj</i></p> <p><i>b. Bokaro</i></p> <p><i>c. Talcher</i></p> <p><i>d. Neyveli</i></p> <p><i>3. Oil Fields:</i></p> <p><i>a. Digboi</i></p> <p><i>b. Naharkatia</i></p> <p><i>c. Mumbai High</i></p> <p><i>d. Bassien</i></p> <p><i>e. Kalol</i></p> <p><i>f. Ankleshwar</i></p> <p><i>Power Plants (Locating and Labelling only)</i></p> <p><i>1. Thermal</i></p> <p><i>a. Namrup</i></p> <p><i>b. Singrauli</i></p> <p><i>c. Ramagundam</i></p> <p><i>2. Nuclear</i></p> <p><i>a. Narora</i></p> <p><i>b. Kakrapara</i></p> <p><i>c. Tarapur</i></p> <p><i>d. Kalpakkam</i></p>
<p><i>Chapter 6: Manufacturing Industries</i></p>	<p><i>(Locating and Labelling Only)</i></p> <p><i>1. Cotton Textile Industries:</i></p> <p><i>a. Mumbai</i></p> <p><i>b. Indore</i></p> <p><i>c. Surat</i></p> <p><i>d. Kanpur</i></p>



	<p><i>e. Coimbatore</i></p> <p><i>2. Iron and Steel Plants:</i></p> <p><i>a. Durgapur</i></p> <p><i>b. Bokaro</i></p> <p><i>c. Jamshedpur</i></p> <p><i>d. Bhilai</i></p> <p><i>e. Vijayanagar</i></p> <p><i>f. Salem</i></p> <p><i>3. Software Technology Parks:</i></p> <p><i>a. Noida</i></p> <p><i>b. Gandhinagar</i></p> <p><i>c. Mumbai</i></p> <p><i>d. Pune</i></p> <p><i>e. Hyderabad</i></p> <p><i>f. Bengaluru</i></p> <p><i>g. Chennai</i></p> <p><i>h. Thiruvananthapuram</i></p>
<p><i>Chapter 7: Lifelines of National Economy</i></p>	<p><i>1. Major Sea Ports (Locating and Labelling)</i></p> <p><i>a. Kandla</i></p> <p><i>b. Mumbai</i></p> <p><i>c. Marmagao</i></p> <p><i>d. New Mangalore</i></p> <p><i>e. Kochi</i></p> <p><i>f. Tuticorin</i></p> <p><i>g. Chennai</i></p> <p><i>h. Vishakhapatnam</i></p> <p><i>i. Paradip</i></p> <p><i>j. Haldia</i></p> <p><i>2. International Airports</i></p>



	<p><i>a. Amritsar (Raja Sansi - Sri Guru Ram Dass Jee)</i></p> <p><i>b. Delhi (Indira Gandhi)</i></p> <p><i>c. Mumbai (Chhatrapati Shivaji)</i></p> <p><i>d. Chennai (Meenam Bakkam)</i></p> <p><i>e. Kolkata (Netaji Subhash Chandra Bose)</i></p> <p><i>f. Hyderabad (Rajiv Gandhi)</i></p>
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HOLIDAY HOMEWORK (2020-21)

CLASS-X SOCIAL SCIENCE

Prepare a detailed project on any one of the following topics.

Project 1:- Consumer Rights

- Different types of consumers rights that you have as a consumer.
- COPRA
- Role of courts in implementation of consumer rights.
- How you can spread consumer awareness.
- Case study

Project 2:- Social Issues

(Students may select any one topic related with social issues. Some suggested topics are given below)

- Gender issue
- Caste issue
- Linguistic diversity
- Regionalisation
- Economic disparities
- Religious diversity
- Environmental issue

Project 3:- Sustainable Development

- Meaning of sustainable development
- Issue of sustainable development
- Importance of sustainable development
- Meetings/reports/summit related to sustainable development
- Current status of development

Project should be developed and presented in this order

- I. Cover page showing project title, schools name, students name, class and section and academic session (year)
- II. List of contents with page number(Index) (approx...15 pages)
- III. Acknowledgements: Acknowledging institution, offices and libraries visited and people who have helped.
 - a. Project Overview: Purpose, aim, methodology and experience while doing the project
 - b. Chapters with relevant headings.
 - c. Summary and conclusions based on findings.
 - d. Bibliography should have the title, pages referred, author, publisher, year of publication and if a website, the name of the website/link.
 - e. Teachers evaluation report

NOTE: Only ecofriendly material to be used

SOCIAL STUDIES PROJECT FOR CLASS X (2020-21)

* Total marks allotted for the project are 5, which includes theory as well as viva.

PROJECT EVALUATION PERFORMA

(The Performa should be attached on the last page of the project.)

School's Name

Address

Student's Name

Roll. No

Class

Section

Teacher Assessment

1. Content accuracy and originality
2. Presentation and creativity
3. Process of project competition
4. Viva –voce
5. Overall remarks:
6. Teacher signature:
- Date:
7. School stamp:



SUBJECT - INFORMATION TECHNOLOGY

Q1. Complete all the notes in fair copy (Computer Notebook) of the chapters taught.

PART A – Unit 1 – Communication Skills

Unit 5 - Green Skills

Unit 3 – ICT (Till completed)

Q2. Complete the assignments and Competency Based Questions of both the Units in Computer Notebook.

Q3. The following questions need to be done in A4 sheets and submitted in practical stick file with good presentation.

A. “ Natural resources are limited and with time they will get over. If we do not do anything , our future generations will not be able to survive.” Justify the statement.

B. How can we become responsible consumer and producer in sustainable development? Explain in your own words.

C. Make a diagram of 7 C's of communication and explain them briefly.

D. Make a collage to show advantages of all the various forms of communication.

Note: The practical file will be assessed on creativity, relevant content, originality and neatness.