

# Holidays Homework 2024-2025

Class: X

## Subject: English

1. Compare and contrast the life of Nelson Mandela with an Indian leader of freedom struggle. Prepare a PPT of the same highlighting key events, challenges and their role in shaping South Africa's History and India's Independence. (8-10 slides and submit the hard copy).
2. Make a poster portraying your thoughts and point of view on: "Love for freedom is the natural instinct of every living being. You may read Leslie Norris's A Tiger in the Zoo for your reference.
3. Travel Brochure: Research about places to visit in Orissa and prepare a Travel Brochure of any one place describing the location, ways to reach there, weather, best time to visit, hotels, the flora and fauna, food, suggested activities, culture etc. It should be handwritten. There should be 4-5 pages, where you may draw or paste some pictures associated with that place. (There should be interesting and catchy HEADINGS above each detailed paragraph. (Each picture in the brochure should have a CAPTION)
4. Complete exercises on Reading comprehension, grammar, vocabulary, project work from the book -Words Expressions 2:  
Unit 2 - Nelson Mandela  
Unit 3 - Two Stories About Flying  
Unit 4 - From the Diary of Anne Frank

## Subject: Punjabi

1. ਪੰਜਾਬੀ ਦੀਆਂ ਕੋਈ ਪੰਜ ਕਿਤਾਬਾਂ ਦੇ ਨਾਂ ਲਿਖੋ ਜਿਹਨਾਂ ਨੂੰ 2023 ਤੱਕ ਸਾਹਿਤ ਅਕਾਦਮੀ ਐਵਾਰਡ ਮਿਲਿਆ ਹੈ।
2. ' ਜੇ ਮੈਂ ਸਿੱਖਿਆ ਮੰਤਰੀ ਹੋਵਾਂ '- ਇਸ ਵਿਸ਼ੇ ਤੇ ਆਪਣੇ ਵਿਚਾਰ ਦਿਉ।
3. ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ ਦੀਆਂ ਉਪ ਭਾਸ਼ਾਵਾਂ ਦੇ ਨਾਮ ਲਿਖੋ ।( ਏਕ ਭਾਰਤ ਸ਼੍ਰੇਣੀ ਭਾਰਤ ਪ੍ਰੋਜੈਕਟ ਦੇ ਅਧੀਨ )
4. 'ਜ਼ਫ਼ਰਨਾਮਾ' ਇਕਾਂਗੀ ਦੇ ਕੋਈ ਦੋ ਪਾਤਰਾਂ ਦੀ ਪਾਤਰ ਉਸਾਰੀ ਦਾ ਦਿਮਾਗੀ ਨਕਸ਼ਾ ਤਿਆਰ ਕਰੋ।

5. ' ਵਿਦੇਸ਼ਾਂ ਦੀ ਚਕਾਚੌਧ - ਸ਼ੌਂਕ ਜਾਂ ਮਜਬੂਰੀ' ਵਿਸ਼ੇ ਨੂੰ ਨਜ਼ਰ ਵਿੱਚ ਰੱਖਦੇ ਹੋਏ ਪੰਜਾਬ ਅਤੇ ਵਿਦੇਸ਼ਾਂ ਦੀ ਜ਼ਿੰਦਗੀ ਵਿੱਚ ਤੁਲਨਾ ਕਰੋ (150 -200 ਸ਼ਬਦਾਂ ਵਿੱਚ)

ਛੁੱਟੀਆਂ ਦਾ ਸਾਰਾ ਕੰਮ ਪ੍ਰੋਜੈਕਟ ਸ਼ੀਟ 'ਤੇ ਕੀਤਾ ਜਾਵੇ

## Subject: Mathematics

Note:

- Do your assignment on single lined sheets
- Paste your activities on A4 size plain sheets
- Compile all your work in a folder

### MIXED ASSIGNMENT

1. Find the largest number that will divide 398, 436 and 542 leaving remainders 7, 11, and 15 respectively.
2. Find the LCM of 96 and 360 by using fundamental theorem of arithmetic.
3. Three bells toll at intervals of 9, 12, 15 minutes respectively. If they start tolling together, after what time will they next toll together?
4. The length, breadth, and height of a room are 8 m 50 cm, 6 m 25 cm and 4 m 75 cm respectively. Find the length of the longest rod that can measure the dimensions of the room exactly.
5. Prove that  $3 + 2\sqrt{5}$  is irrational
6. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $ax^2 + bx + c$ , find the value of  $\alpha^2 + \beta^2$ .
7. If the sum of the zeroes of the polynomial  $p(x) = (k^2 - 14)x^2 - 2x - 12$  is 1, then find the value of  $k$ .
8. If  $\alpha$  and  $\beta$  are the zeroes of a polynomial such that  $\alpha + \beta = -6$  and  $\alpha\beta = 5$ , then find the polynomial.
9. Find the zeroes of the quadratic polynomial  $\sqrt{3}x^2 - 8x + 4\sqrt{3}$ .
10. If the zeroes of the polynomial  $x^2 + px + q$  are double in value to the zeroes of  $2x^2 - 5x - 3$ , find the value of  $p$  and  $q$ .
11. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $6y^2 - 7y + 2$ , find a quadratic polynomial whose zeroes are  $1/\alpha$  and  $1/\beta$ .
12. Calculate the area bounded by the line  $x + y = 10$  and both the co-ordinate axes.
13. Solve by elimination  $3x = y + 55$ ;  $x - y = 11$
14. The sum of the digits of a two digit number is 8 and the difference between the number and that formed by reversing the digits is 18. Find the number.
15. Speed of a boat in still water is 15 km/h. It goes 30 km upstream and returns back at the same point in 4 hours 30 minutes. Find the speed of the stream

## ASSERTION AND REASONING QUESTIONS

**DIRECTION:** In the following questions, a statement of **assertion (A)** is followed by a statement of **Reason (R)**. Mark the correct choice as:

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

16. **Assertion:** If one root of the quadratic equation  $6x^2 - x - k = 0$  is  $2/3$ , then the value of  $k$  is 2.

**Reason:** The quadratic equation  $ax^2 + bx + c = 0$ ,  $a \neq 0$  has almost two roots.

17. **Assertion:**  $3x^2 - 6x + 3 = 0$  has repeated roots.

**Reason:** The quadratic equation  $ax^2 + bx + c = 0$  have repeated roots if discriminant  $D > 0$ .

18. **Assertion:** The H.C.F. of two numbers is 16 and their product is 3072. Then their L.C.M. = 162.

**Reason:** If  $a$  &  $b$  are two positive integers, then  $H.C.F. \times L.C.M. = a \times b$ .

## CASE STUDY BASED QUESTIONS

19. Raj and Ajay are very close friends. Both the families decide to go to Ranikhet by their own cars. Raj's car travels at a speed of  $x$  km/h while Ajay's car travels 5 km/h faster than Raj's car. Raj took 4 hours more than Ajay to complete the journey of 400 km.

- (i) What is the speed of Raj's car?
- (ii) How much time took Ajay to travel 400 km?



20. The below picture are few natural examples of parabolic shape which is represented by a quadratic polynomial. A parabolic arch is an arch in the shape of a parabola. In structures, their curve represents an efficient method of load, and so can be found in bridges and in architecture in a variety of forms.



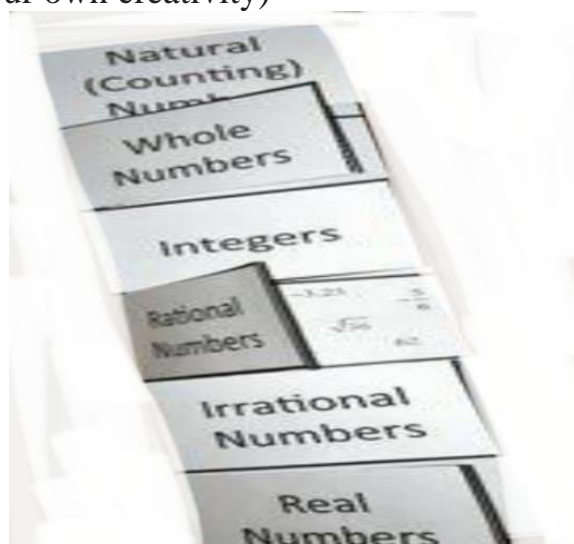
- i. If  $\alpha$  and  $1/\alpha$  are the zeroes of the quadratic polynomial  $2x^2 - x + 8k$ , then find  $k$ .
- ii. Form a quadratic equation if the sum of the roots is  $-p$  and product of the roots is  $-1/p$

### Activities

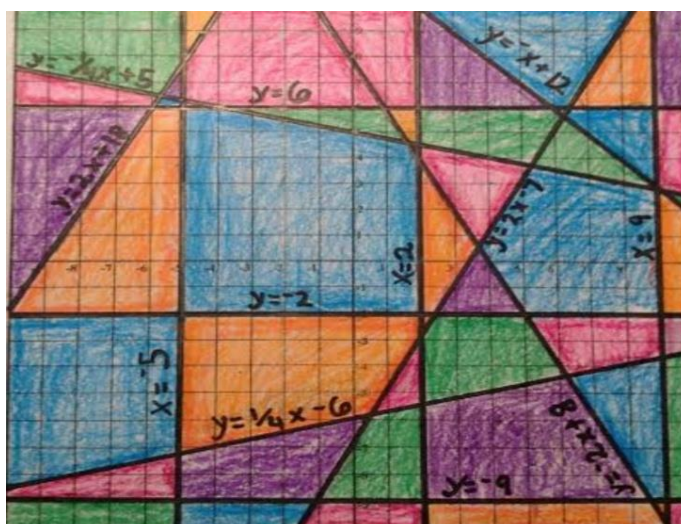
21. Make a foldable on real numbers (Use your own creativity)

Natural Numbers	Counting Numbers	1, 2, 3, 4, 5, 6, 7, 8, 9, ...
Whole Numbers	Include counting numbers and zero	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ...
Integers	Include counting numbers, wholes and their opposites	-9, -8, -7, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ...
Rational Numbers	Include everything above plus fractions, repeating decimals and terminating decimals.	1, -1, $-\frac{1}{2}$ , 0.5, 0.333..., -0.6
Irrational Numbers	Are non-rational numbers, decimals that don't repeat and don't terminate. this includes the symbol for pi and non-perfect squares.	$\pi$ , $\sqrt{8}$ , 1.24789434..., $-\sqrt{7}$ , 0.74358734...

**THE REAL NUMBER SYSTEM**



22. On a single graph, draw 10 straight lines making some design. Write the equations of all the lines drawn. Colour the design and decorate it in your own creative way.



23. Trace the map of India on a tracing paper and paste it on a graph sheet. Outline the border of the states of Punjab and Orissa. Show their capitals. Find the area of the states in the map by counting the squares. (Take 1 complete square as 1. Half as  $\frac{1}{2}$ . Less than half as 0. More than half as 1) Compare their areas on map and also compare their actual areas.

## Subject: Science

### For science portfolio

#### Make a file having following

1. **Make the mind map for the following ( on coloured sheets)**
  - a. Lesson Light Reflection and Refraction
  - b. Chemical reactions and equations
2. **Make working model (For Art integration)**
  - Digestive system Roll no. 1-10
  - Respiratory system Roll no.11-20
  - Heart Roll no. 21-30
  - Excretory system ROLL NO.31 Onwards
3. On A4 sheets, Draw all the ray diagrams of lesson Light – Reflection and Refraction. **(For Art integration and interdisciplinary project)**
4. Read the given chapters 1,5 and 9 carefully and  
Frame the following assignments from each lesson
  - \* Two Assertion Reasoning questions  $2 \times 1 = 2$  marks
  - \* Two multiple choice questions  $2 \times 1 = 2$  marks
  - \* 1 case study question with 4 sub questions  $1 \times 4 = 4$  marks
  - \* One HOTS question of two marks  $1 \times 2 = 2$  marks
5. Take the print out of following assignment and solve the same on the print out taken

### Assertion -Reason Assignment

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- À(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): The centre of curvature is not a part of the mirror. It lies outside its reflecting surface.  
Reason (R): The reflecting surface of a spherical mirror forms a part of a sphere. This sphere has a centre
2. Assertion (A) : A ray passing through the centre of curvature of a concave mirror after reflection, is reflected along the same path  
Reason (R): The incident rays fall on the mirror along the normal to the reflecting surface.
3. Assertion (A): Light does not travel in the same direction in all the media.  
Reason (R): The speed of light does not change as it enters from one transparent medium to another medium
4. Assertion (A): The emergent ray is parallel to the direction of the incident ray.  
Reason (R): The extent of bending of the ray of light at the opposite parallel faces (air- glass interface and glass-air interface) of the rectangular glass slab is equal and opposite).
5. Assertion (A): A ray of light travelling from a rarer medium to a denser medium slows down and bends away from the normal. When it travels from a denser medium to a rarer medium, it speeds up and bends towards the normal  
Reason (R): The speed of light is higher in a rarer medium than a denser medium.
6. Assertion (A): The mirrors used in search lights are concave spherical.  
Reason (R): In concave spherical mirror the image formed is always virtual
7. Assertion (A): Light travels faster in glass than in air.  
Reason (R): Glass is denser than air.
8. Assertion (A): For observing traffic at back, the driver mirror is convex mirror.  
Reason (R): A convex mirror has much larger field of view than a plane mirror.
9. Assertion (A): Mirror formula can be applied to a plane mirror.  
Reason (R): A plane mirror is a spherical mirror of infinite focal length.
10. Assertion (A): It is not possible to see a virtual image by eye.  
Reason (R): The rays that seem to emanate from a virtual image do not in fact emanates from the image.
11. Assertion (A): Plants lack excretory organs.  
Reason (R): Plants usually absorb essential nutrients
12. Assertion (A): In anaerobic respiration, one of the end product is alcohol.

- Reason (R): There is an incomplete breakdown of glucose
13. Assertion (A): In plants there is no need of specialised respiratory organs.  
Reason (R): Plants do not have great demands of gaseous exchange.
14. Assertion (A): Bile is essential for digestion of lipids.  
Reason (R): Bile juice contains enzyme.
15. Assertion (A): Carbohydrate digestion mainly takes place in small intestine.  
Reason (R): Pancreatic juice contains the enzyme lactase.
16. Assertion (A): Decomposition of vegetable matter into compost is an example of exothermic reactions.  
Reason (R): Exothermic reactions are those reactions in which heat is evolved
17. Assertion (A): When HCL is added to zinc granules, a chemical reaction occurs.  
Reason (R): Evolution of a gas and change in colour indicate that the chemical reaction is taking place.
18. Assertion (A): Calcium carbonate when heated gives calcium oxide and water.  
Reason (R): On heating calcium carbonate, decomposition reaction takes place.
19. Assertion (A): Brown fumes are produced when lead nitrate is heated.  
Reason (R): Nitrogen dioxide gas is produced as a by-product due to the decomposition of lead nitrate.
20. Assertion (A): White silver chloride turns grey in sunlight.  
Reason (R): Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.

## Subject: Social Science

### Ek Bharat Shreshtha Bharat Activity

State PUNJAB and ODISHA-  
Forest and Agriculture of Punjab and Odisha

Students will prepare a colourful Brochure with pictorial depiction on the topic Forest and Agriculture in Punjab and Odisha.

### History: Art Integrated Activity

2.

A) Make an Album of the famous authors of the Europe and India and their writings. Paste pictures of the Authors and their writings mentioned in Ch- Print Culture.

B) Prepare Mind Map of Unification of Germany, Unification of Italy and England in a creative way by using symbols and pictures.

### **Political:**

#### **3. Parliamentary Elections of 2024:**

Make a project on Elections in India - Write names, draw symbols of political parties contesting Elections, campaign, manifesto, slogans etc.

- Paste pictures of the Election Day, voting turnout from newspaper and announcement of the results.

### **Geography:**

#### **4-Sustainable Development Goal-6:**

\* Poster making on Conservation of Water with Caption

**Research Project** – Prepare a research project on the Impact of Industrial pollution on the health of people of Punjab. Also suggest measures to solve this problem

### **Economics: CBSE Project**

Choose any one of the following topics.

1. Consumer Awareness
2. Social Issues
3. Sustainable Development

### **Objective:**

\*Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.

\*If possible various forms of Art may be integrated in the Project work.

\*It should help in enhancing the Life Skills of the Students.

### **A summary report should be prepared highlighting:**

\*Innovative ideas generated in the process

\*The Project report should be handwritten.

### **Learning Outcomes:**

1. Consumers have the right to be free of hazardous goods and services that jeopardize their lives and property. The customer has a right to know about the quantity, consistency, purity, strength, and quality of goods and services.

2. Students will be able to identify, describe and analyse important social issues from multiple cultural perspectives.




3. Students will be able to define sustainability and identify major sustainability challenges.

### Guidelines:

- The project work should be done in an A4 size sheet (number of pages 5 including cover page, conclusion and Bibliography)
- The distribution of marks over different aspects relating to Project work is as follows:

### Rubrics

*Content accuracy, originality and analysis.	2 marks
*Presentation and creativity	2
*Overall neatness, pictures and good handwriting skills.	1

- Read the chapters given below & solve assignment in your classwork notebook (Link of the assignments of given lessons )

Ch: Water Resources

[https://drive.google.com/file/d/16wKbvBMQOtjfr8K-4\\_et2PMdXPIbF2Z/view?usp=drivesdk](https://drive.google.com/file/d/16wKbvBMQOtjfr8K-4_et2PMdXPIbF2Z/view?usp=drivesdk)

Ch: Federalism

<https://drive.google.com/file/d/16r8oxviXCHe2cLgcLwnG1ZZA6TP0c5Ir/view?usp=drivesdk>

Ch: Nationalism in Europe

<https://drive.google.com/file/d/16tSpmwPdzoigepnBu6Z5DhMy9BPEJgOi/view?usp=drivesdk>

**Note: Holidays homework should be done on A4 size sheets and bring it in a folder**

## Subject: Hindi

(सारा कार्य A-4 साइज़ शीट पर करें)

प्रश्न 1- (क) स्लोगन लिखकर विज्ञापन बनाएँ-

- जल संरक्षण
- रक्तदान शिविर
- 'रत्ना हेयर तेल' (उत्पाद संबंधी)

(ख) हिंदी समाचार-पत्र से पाँच विज्ञापन काटकर चिपकाएँ।

प्रश्न 2- अनुभव लेखन

## वो जो छुट्टियाँ थीं

'तुम लोगों को पता ही क्या है, गर्मियों की छुट्टियों के मजे तो हमारे समय में आते थे' यह जुमला अक्सर दादा-दादी, माता-पिता घर के बच्चों से कहते रहते हैं। क्या था वह आनंद छुट्टियों का? उस अनुभव को जानिए और अनुच्छेद रूप में लिखिए। (शब्द सीमा - 100-150 शब्द)

प्र 3 शास्त्रीय संगीत में प्रयोग किए जाने वाले वाद्य यंत्रों के चित्रों का संकलन कर किन्हीं दो का विस्तार से वर्णन करें।

प्र 4 जो अच्छा है ..... लिखें।

आपको खुद में जो भी अच्छा लगता है या आप में ऐसे गुण हैं जो आपको सकारात्मक लगते हैं, उनकी सूची बनाएं। आपके दिमाग में जो भी आता जाए उसे एक डायरी में लिखते जाएं, जैसे कौशल, व्यवहार, नज़रिया, काम करने की क्षमता, रिश्ते आदि। इसमें आप अपनी सुंदरता भी शामिल कर सकती हैं।

जब सूची बन जाए तो उसे ध्यान से पढ़ें। ये गुण कब निखरकर सामने आए थे, उन जीवन प्रसंगों को याद करें। अपने आप को उस खूबसूरत, कृतज्ञ, कुशल अवस्था में दोबारा लाने की कोशिश करें।

प्र 5 - समय प्रबंधन, सहानुभूति, तार्किक चिंतन, समस्या - समाधान आदि जीवन कौशलों पर आधारित 5 कहानियाँ का संकलन करें और पढ़ें और उसकी समीक्षा (Review) लिखें।

प्र 6 एक भारत श्रेष्ठ भारत के अंतर्गत परियोजना कार्य

पंजाब और उड़ीसा के व्यंजनों की सूची तैयार करें व उनके चित्र चिपकाएं।

## Subject: Sanskrit

अव्ययपदानि:—

उच्चैः, च, श्वः, ह्यः, अद्य, अत्र—तत्र, यत्र—कुत्र, इदानीम्, (अधुना, सम्प्रति, साम्प्रतम्), यदा, कदा, तदा, सहसा, वृथा, शनैः, अपि, कुतः, इतस्ततः, यदि—तर्हि, यावत्—तावत्

**समयलेखनम्:—**सामान्यः, वादनम्, सपादः, सार्धः, पादोनः । एकतः द्वादशः पर्यन्तम् ।

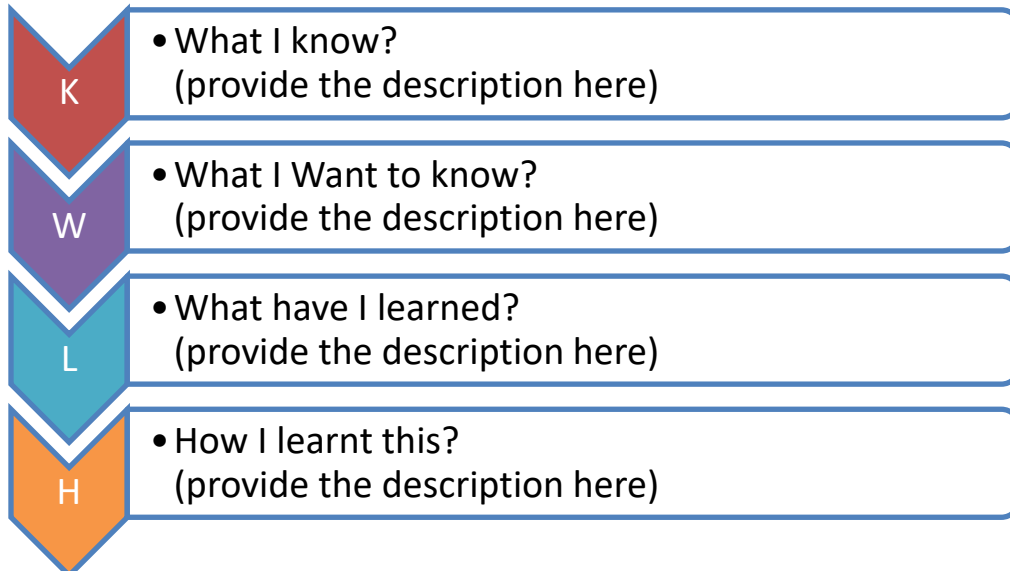
**व्यंजनसंधिः—** वर्गीय प्रथमवर्णस्य स्थाने तृतीयवर्णे परिवर्तनम्, प्रथमवर्णस्य पंचमवर्णे परिवर्तनम् ।

**विसर्ग संधिः—** विसर्गस्य उत्त्वम्, रत्वम्, विसर्गलोपः, विसर्गस्य स्थाने स्,श्,ष्  
अव्ययपदानां प्रपत्रकनिर्माणम्

## Subject: Artificial Intelligence

### Note:

- Each and every practical question will start from the new page
  - Students can use colourful pens for writing the python scripts
  - Output of each python script will be written or pasted on the white plain side of the file and on the lining side the script is to be mentioned (by hand only).
  - Do as directed in the questions
1. Design an e-poster for the traits of human intelligence either by hand or using any of the digital tools and paste it in the practical file. (E-poster should be presentable, attractive & informative and if using the printout then it should be a coloured printout).
  2. Design the following chart with respect to AI? (design it either by hand or by using any of the digital tools and paste it in the practical file and the printout should be coloured printout)



3. **Create an e-poster for the elements of communication either by hand or by using any of the digital tools?** (E-poster should be presentable and attractive and if using the printout then it should be a coloured printout).
4. **Draw or paste (coloured picture) of keyboard and highlight the different types of keys that are present on the keyboard.**
5. **Create an e-poster for the qualities of the entrepreneur either by hand or by using any of the digital tools?** (E-poster should be presentable, attractive & informative and if using the printout then it should be a coloured printout).
6. **Write a python script to find the sum, multiplication, division and subtraction of the two numbers entered by the user?**
7. **Write the python script to find the percentage of the student scored in the final examination. Enter the marks for any of the 5 subjects and the maximum marks for the subject will be 100?** (Output will include the marks of the all the subjects scored along with subject name and the total marks and percentage scored)
8. **Write a python script to print the table of a number entered by the user?**
9. **Write a python script to print factorial of a number entered by the user?**
10. **Write a python script to find the BMI value?**

## **Subject: Information Technology**

1. Make a collage of your photographs and apply different filters on different photographs, in Libre Office Writer.
2. Make a poster in Libre Office Writer on Communication Process and Elements of Communication. (Keep page orientation- Portrait, Use tools of drawing tool bar, Insert image also) (Ref. Employability Skills page no.3)
3. Make a poster in Libre Office writer on Visual Communication, how the information is exchanged through images.(Ref. Employability Skills page no. 13-14)
4. Write an essay in Libre Office Writer to describe the place and your experience during a holiday trip with your family.  
Highlight how the trip helped you de-stress
5. Create a worksheet in tabular form in Libre Office Writer on your interests and abilities
6. Make a mind map in Libre Office Writer on ‘Steps to build Self -Motivation’. (Ref. Employability Skills page no. 52)
7. Make a creative document in Libre Office Writer depicting ‘Four Steps for Effective Time Management’
8. In PAU, different IT companies are organizing a fair. You are an organizer, make a flyer for advertisement in Libre Office Writer.

9. Make a chart of shortcut keys used in Libre Office Suite. Make on A4 size sheet.
10. Write precautionary measures to protect data.  
In Libre Office Writer create your own styles and use them, using fill format option, use different Heading Levels, keep Page orientation – Portrait.

## **Subject: Apparel**

Illustrate following color schemes on A4 size ivory sheets

1. Warm & Cool colors ( geometrical shapes)
2. Analogous colors( Cartoon character)
3. Complementary colors( butterfly/fish motif)
4. Tints tones and shades ( Birds)

## **Subject: Introduction to Financial Markets**

1. Make a scrapbook - 'FINANCIAL SAGA' by pasting the cuttings of 10 news articles related to financial sector and then analyse and summarise it in a paragraph in your own words. (Mention the date of each news).
  - Financial News can be related to the Economy of India or World, Companies, stock market, IPO etc.
2. Frame One mark Questions In the form of Fill ups, True/False, MCQ (10 of each type) from Chapter 3. (Refer your book - Chapter 3)
3. Make a project file on Mutual funds (stating meaning, advantages, types, mechanism of mutual funds, brief information of any 4 mutual fund companies with pictures of their logos).

## **Subject: Beauty and Wellness**

1. Write the method of Bleach and Threading
2. Waxing treatment and safety
3. Collage of different type of Skin care products
4. Visit to salon and make a list of different types of facial services
5. Draw different designs of Bindi

All the Projects to be done in practical File