

Mathematics Project 2019-20
Class X

1. Index
2. Acknowledgment
3. Introduction
4. Project Work
5. Conclusion
6. Bibliography

Topics (To be written in Project Work)

1. Comparative newspaper coverage of different items.
2. Survey of various type of Bank Accounts, rates of interest offered.
3. Planning a home budget

Notes :

1. Do all topics.
2. Acknowledgment, Introduction conclusion, Bibliography to be written in Index.

File : Cobra File

Cover : Black Chart Paper

Physics Project 2019-20
Class X

- | | |
|------------------|------------------|
| * Experiment 1.1 | * Experiment 1.2 |
| * Experiment 3 | * Experiment 4.1 |
| * Experiment 4.2 | * Experiment 5 |
| * Experiment 6 | * Experiment 7 |
| * Experiment 8 | * Experiment 10 |
| * Experiment 11 | * Experiment 12 |

Note :

- * [Topics/Heading to be written from the Experiment]
- * Aim of the experiment.
- * Apparatus/Material Required.
- * Observation & Calculation
- * Result
- * Precautions

Note : Draw all the diagrams by the pencil.

Cover : Black Chart Paper

Chemistry Project 2019-20

Class X

Experiment 1 : Identification of Gases by different Methods

Experiment 2 : Inorganic qualitative Analysis

Experiment 3 : Action of Ammonium Hydroxide and Sodium Hydroxide on Metallic Salts

Experiment 4 : Determination of Acidic Solution and Alkaline solution.

Experiment 5 : Distinguishing between Copper Oxide and Manganese Dioxide with the Helps of concentrated Hydrochloric Acid.

Experiment 3 : To study the structure of germinating seeds of bean and maize.

Biology Project 2019-20

Class X

Section A : Plant Life

Experiment 1 : To study the different stages of mitosis through permanent slides.

Experiment 2 : To demonstrate the process of diffusion in liquids by using potassium permanganate crystals.

Experiment 3 : **Experiment 3.1** : To demonstrate the process of osmosis by using a thistle funnel.

Experiment 3.2 : To study osmosis with the help of a potato osmoscope.

Experiment 4 : To demonstrate that water is absorbed by roots in plants.

Experiment 5 : **Experiment 5.1** : To demonstrate the process of transpiration in plants.

Experiment 5.2 : To compare the rate of transpiration between the dorsal and the ventral surfaces of a leaf using Cobalt Chloride Paper.

Experiment 5.3 : To measure the rate of transpiration of a leafy shoot using Ganong's Potometer.

Experiment 6 : **Experiment 6.1** : To show that light is necessary for photosynthesis

Experiment 6.2 : To show that carbon dioxide is necessary for photosynthesis (Moll's leaf Experiment)

Experiment 6.3 : To show that chlorophyll is necessary for photosynthesis.

Experiment 6.4 : To show that green plants produce oxygen during photosynthesis.

Section B : Animal Life (Any 2) Charts on Chart Paper.

(Draw diagrams on full size chart) (Do any two experiment)

Experiment 7 : To study the structure of human urinary system through charts or models.

Experiment 8 : To study the structure of human heart through charts or models.

Experiment 9 : To study the structure of human brain through charts or models.

Experiment 10 : To observe and identify different types of blood cells.

Experiment 11 : To study the structure of human eye.

Experiment 12 : To study the structure of human ear.

Experiment 13 : To identify and locate endocrine glands (Adrenal, pancreas, thyroid and pituitary glands) with the help of a model or chart.

English Literature Project 2019-20

Class X

* **Acknowledgment**

* **Index**

- I.
 - i. Write biographies of 4 Indian and 4 Foreign Poets with any of their (ONE) work each. (in not more than 350 words)
 - ii. Write biographies of 4 Indian and 4 Foreign AUTHORS with any of their (ONE) work each. (in not more than 350 words)
 - II. Write the life history of William Shakespeare with any THREE dramas from : (Summary) (In not more than 450 words)
 - i. Julius Ceaser
 - ii. Twelfth Night
 - iii. Tempest
 - iv. Mid Summer Night
 - v. Merchant of Venice
 - vi. Macbeth
- ✕ Conclusion
- ✕ Bibliography

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English Language Project 2019-20

Class X

* **Acknowledgment**

* **Index**

- I.
 - i. Write various PARTS OF SPEECH with definition and 5 sentences each.
 - ii. Write various FIGURES OF SPEECH with definition and 5 sentences each.
- II. Write a COMPOSITION on ANY TWO in NOT MORE THAN (in 350-400 words)
 - i. Media and Technology.
 - ii. Child Labour
 - iii. Can Science go too far?
 - iv. "Hard Work Alone Does Not Pay" - Argue FOR or AGAINST this statement.
 - v. Cleanliness in Next to Godliness
- III.
 - i. Write any 2 FORMAL LETTERS with the meaning of formal letter.
 - ii. Write any 2 INFORMAL LETTERS with the meaning of informal letter.
- IV. Write the importance of women's role in today's society. (in 350-400 words)
- V. Paste a picture based on Scarcity of Water and write its picture composition. (in 350-400 words)
- VI. Write a notice as a Principal of a college informing your students about the postponement of the annual exams due to elections and rescheduling of them one month later. (80 words)
- VII. Write an email to your friend informing him/her about the benefits of saving water due to its shortage and methods to harvest it. (80 words)
 - ✕ Conclusion
 - ✕ Bibliography

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Hindi Project 2019-20
Class X
साहित्य सागर – Literature

पाठ 1 से 10 तक

1. कहानी का उद्देश्य
2. शीर्षक की सार्थकता
3. लेखक का परिचय एवं रचनाएँ

एकांकी

पाठ 1 से 6 तक

1. एकांकी कार का परिचय
2. एकांकी का उद्देश्य
3. शीर्षक की सार्थकता

व्याकरण – Language

निबंध (कोई 2)

पत्र

1. प्रार्थना पत्र
 2. व्यक्तिगत पत्र
- 20 विलोम शब्द
20 मुहावरे
20 पर्यायवाची शब्द
20 भाववाचक संज्ञा
20 विशेषण

Computer Project 2019-20
Class X

1. Java Program to display prime numbers between 1 and 100 or 1 and n
2. Java program to break integer into digits.
3. Java Program to check if a given number is perfect square
4. Java Program to find square root of a number without sqrt method
5. Java Program to print Armstrong numbers between a given range
6. Java Program to Find Sum of Natural Numbers
7. Java Program to check if a number is Positive or Negative
8. Java Program to generate Random Number
9. Java Program to check Armstrong number
10. Java Program to find GCD of two numbers
11. Java Program to find Largest of three numbers
12. Java Program to swap two numbers using bitwise operator
13. Java Program to find smallest of three numbers using ternary operator
14. Java Program to find largest of three numbers using ternary operator

15. Java Program to display alternate prime numbers
16. Java Program to display even numbers from 1 to n or 1 to 100
17. Java Program to display odd numbers from 1 to n or 1 to 100
18. Java Program to print Floyd's triangle
19. Java program to print Pascal triangle
20. Java Program to display Fibonacci series using loops
21. Java Program to find Factorial using loops
22. Java Program to make a calculator using switch case
23. Java Program to Calculate grades of Student
24. Java Program to perform Arithmetic Operation using Method Overloading
25. Java Program to find Area of Geometric figures using method overloading

Note :-

- * Hard copy of the project with output of the programs, proper index, acknowledgement and bibliography should be submitted.
- * Xerox Copy will not be accepted.
- * Project should be submitted using proper plastic files.

History & Civics Project 2019-20

Class X

Civics

- * Detail study of Executive and judiciary
- * Present the life sketch and contributions on any one presidents of India.
 1. Dr. Rajendra Prasad
 2. Dr. S Radha Krishnan
 3. Dr. A.P.J. Abdul Kalam

History

- * National Heroes of Indian Freedom.
Highlight the work and their achievements towards national movement.
 1. Raja Ram Mohan Roy
 2. Subash Chandra Bose
 3. Dada Bhai Naoroji
 4. Gopal Krishna Gokhale
 5. Bal Gangadhar Tilak

Note :

1. Use Practical file, cover with blue florecent paper and with plastic sheet.
2. Project should be supported with paper cutting and pictures.
3. It should have index, acknowledgment, conclusion and Bibliography.

Geography Project 2019-20

Class X

TOPIC: "Study of Transportation System of India"

* Acknowledgment

* Index

COVERING :

1. Introduction

2. Indian Roads

National Highways, Recent Developments of Roads, Importance of Roads, Growth and Development of Indian Roads.

Golden Quadrilateral - Its Importance & Role in Modern India.

3. Indian Railways

Importance of Railways, DFC (Dedicated Freight Corridor), Rail Gauges, Narrow Gauge, Advantages of Narrow Gauge, Disadvantages of Narrow Gauges, Broad Gauge, Advantages of Broad Gauge, Disadvantages of Broad Gauge, Meter Gauge, Advantages of Meter Gauge, Disadvantages of Meter Gauge.

4. Indian Airways

Air India, Domestic Carrier, Private Airlines, Pawan Hans Helicopter

5. Indian Water Ways

Shipping, Coastal Shipping, Overseas Shipping, Inland Waterways

6. Indian Ports

Major Ports, Development of Ports, Minor and Intermediate Ports.

7. Cochin Shipyard Limited

Formation & relevance in Modern India

8. Garden Reach Shipbuilders and Engineers Limited, Kolkata

9. Hindustan Shipyard Limited, Vishakhapatnam

Utility in Modern India.

10. Hoogly Dock and Port Engineers Limited

Its problem & solutions.

11. Policies for the development of Indian Transportation System.

12. Problems of India Transportation System.

13. Solutions for the problems of Indian Transportation System.

14. Conclusion

15. Bibliography

MAPS & PICTURE : As & where to be pasted

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