

## **Holiday Home Work. CLASS XII[2026-27]**

### **Political Science-**

Dear Students

Make a project on any one topic given below or as discussed topics in the class in proper manners-

1. The Challenges of Nation Building.
2. The End of Bipolarity.
3. Indian External Relations.
4. The Era of one party dominance.
5. ASEAN or European Union.

### **CHEMISTRY:**

#### 1. Chromatography

To separate the coloured components present in the mixture of red and blue inks by paper

chromatography and find their R<sub>f</sub> values.

#### 2. Preparation of inorganic compounds

a) Prepare crystals of ferrous ammonium sulphate (Mohr's Salt)

#### 3. Salt Analysis /Determination of anion and cation in the given salt

a) Ammonium chloride

b) Lead acetate

c) Aluminum Sulphate

d) Calcium chloride

e) Ammonium sulphate

f) Calcium carbonate

g) Ammonium carbonate

h) Aluminum chloride

#### 4. Volumetric Analysis

a) Prepare 250 ml of M/20 solution of oxalic acid

b) Prepare 250 ml of M/20 Mohr's salt solution

c) Prepare M/20 standard solution of ferrous ammonium sulphate (Mohr's Salt) Using this solution find

out the molarity of the potassium permanganate solution.

d) Prepare M/20 standard solution of Oxalic acid. Using this solution find out the molarity of the given

potassium permanganate.

Write the Practicals in lab manual only, don't use simple practical copy.

#### **PHYSICS:**

SECTION – A 1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current. 2. To verify the law of combination (series) of resistance using meter bridge. 3. To determine the resistance of galvanometer by half – deflection method and to find its figure of merit. 4. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. 5. To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same. 6. To find resistance of a given wire /standard resistor using meter bridge

SECTION – B 1. To draw the I-V characteristics curve of a p-n junction diode in forward and reverse bias. 2. To find the focal length of a convex lens by plotting graphs between  $u$  and  $v$  or between  $1/u$  and  $1/v$ . 3. To find the value of  $v$  for different values of  $u$  in case of a concave mirror and to find the focal length. 4. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. 5. To find the refractive index of a liquid using a concave mirror and a plane mirror. Project: Perform any one of the following investigatory projects -: 1. To study various factors on which the internal resistance/EMF of a cell depends. 2. To study the variations in current flowing in a circuit containing an LDR because of a variation in (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance). 3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle. 4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer. 5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent

fluids. 6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law. 7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor (bulb) in a circuit fed up by an AC source of adjustable frequency. 8. To study the earth's magnetic field using a compass needle-bar magnet by plotting magnetic field lines and tangent galvanometer. 6. To determine refractive index of a glass slab using a travelling microscope.

Write the Practical's in lab manual only, don't use simple practical copy.

### **Holiday Homework for Math and Applied Math :**

Revise full chapter Matrix and Determinant.

Also write 📄 first 5 Lab-Manual activities from any Math Lab-Manual.

### **Holiday Home work for Biology**

Section-A(1,2,3)

Section-B(1,2,3,4,5)

Section-c observation and practical of biotechnology applications.

Transgenic animal,Dna, pcr.

In lab manual

A. List of Experiments 1. Prepare a temporary mount to observe pollen germination. 2. Study the plant population density by quadrat method. 3. Study the plant population frequency by quadrat method. 4. Prepare a temporary mount of onion root tip to study mitosis. 5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, banana etc.

B. Study and observe the following (Spotting): 1. Flowers adapted to pollination by different agencies (wind, insects, birds). 2. Pollen germination on stigma through a permanent slide or scanning electron micrograph. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). 4. Meiosis in onion bud cell or grasshopper testis through permanent slides. 5. T.S. of blastula through permanent slides (Mammalian). 6. Mendelian inheritance using seeds of different colour/sizes of any plant. 7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness. 8. Controlled pollination - emasculation, tagging and bagging. 9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause. 13 10. Models specimens showing symbiotic association in lichens, root nodules of

leguminous plants, and parasitic mode of nutrition shown by Cuscuta on host. 11. Flash cards / models showing examples of homologous and analogous organs.

**Business Studies ( 054)**  
**Class : 12th**

**Students are supposed to select one unit out of three and are required to make only ONE project from the selected unit. (Consist of one project of 20 marks)**

**(i) Project One : Elements of Business Environment**

**1. Changes witnessed over the last few years on mode of packaging and its economic impact.**

Students identify the following changes:

- a. The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for above changes.
- b. Milk being supplied in glass bottles, later in plastic bags and now in tetra-park and through vending machines,
- c. Plastic Furniture [doors and stools) gaining preference over wooden furniture.
- d. The origin of cardboard and the various stages of changes and growth
- e. Brown paper bags packing to recycled paper bags to plastic bags and cloth bags
- f. Reuse of packaging [bottles, jars and tins) to attract customers for their products.
- g. The concept of pyramid packaging for milk.
- h. Cost being borne by the consumer/manufacturer.
- i. Packaging used as means of advertisements.

**2 The reasons behind changes in the following:**

Coca-Cola and Fanta in the seventies to Thums up and Campa Cola in the eighties to Pepsi and Coke in nineties.

The teacher may guide the students to the times when India sold Coca Cola and Fanta which were being manufactured in India by the foreign companies.

The students may be asked to enquire about

- (a) Reasons of stopping the manufacturing of the above mentioned drinks in India THEN.
- (b) The introduction of Thums up and Campa cola range.
- (c) Re-entry of Coke and introduction of Pepsi in the Indian market.
- (d) Factors responsible for the change.
- (e) Other linkages with the above.
- (f) Leading brands and the company having the highest market share.
- (g) Different local brands venturing in the Indian market.
- (h) The rating of the above brands in the market.
- (i) The survival and reasons of failure in competition with the international brands.
- (j) Other observations made by the students

**3. Changing role of the women** in the past 25 years relating to joint families, nuclear families, women as a bread earner of the family, changes in the requirement trend of mixers, washing machines, microwave and standard of living.

4. The changes in the pattern of import and export of different Products
5. The trend in the changing interest rates and their effect on savings.
6. A study on child labour laws, its implementation and consequences.
7. The state of anti plastic campaign, the law, its effects and implementation.
8. The laws of mining setting up of industries, rules and regulations, licences required for running that business
9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc.)
10. What has the effect of change in environment on the types of goods and services) The students can take examples like:
  - (a) Washing machines, micro waves, mixers and grinder.
  - (b) Need for crèche, day care centre for young and old.
  - (c) Ready to eat food, eating food outside, and tiffin centres.
11. Change in the man-machine ratio with technological advances resulting in change of cost structure.

12. Effect of changes in technological environment on the behaviour of employee.

**(II) PROJECT TWO: PRINCIPLES OF MANAGEMENT**

The students are required to visit any one of the following:

1. A departmental store
2. An industrial unit
3. A fast food outlet
4. Any other organisation approved by the teacher

They are required to observe the application of the general Principles of Management advocated by Fayol.

Fayol's principles:

1. Division of work
2. Unity of command
3. Unity of direction
4. Scalar chain
5. Espirit de corps
6. Fair remuneration to all
7. Order
8. Equity
9. Discipline
10. Subordination of individual interest to general interest
11. Initiative
12. Centralisation and decentralisation
13. Stability of tenure

Or

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management:

1. Functional foremanship
2. Standardisation and simplification of work
3. Method study
4. Motion Study
5. Time Study
6. Fatigue Study
7. Differential piece rate plan

**Tips :**

- (i) Identify any unit of your choice and identify the principles that are being followed.
- (ii) Similarly identify the techniques of scientific management implemented in the organisation.
- (iii) It may be done as a group activity.
- (iv) The observations could be on the basis of:

- The different stages of division of work resulting to specialisation.
- Following instructions and accountability of subordinates to higher authorities.
- Visibility of order and equity in the unit.
- Balance of authority and responsibility.
- Communication levels and pattern in the organisation.
- Methods and techniques followed by the organisation for unity of direction and coordination amongst all.
- Methods of wage payments followed. The arrangements of fatigue study.
- Derivation of time study.
- Derivation and advantages of method study.
- Organisational chart of functional foremanship.
- Any other identified in the organisation.

**(III) PROJECT THREE: MARKETING**

1. Adhesives
2. Air conditioners
3. Baby diapers

4. Bathing Soap
5. Bathroom cleaner
6. Bike
7. Blanket
8. Body Spray
9. Bread
10. Breakfast cereal
11. Butter
12. Camera
13. Car
14. Cheese spreads
15. Chocolate
16. Coffee
17. Cosmetology product
18. Crayons
19. Crockery
20. Cutlery
21. Cycle
22. DTH
23. Eraser
24. e-wash
25. Fairness cream
26. Fans
27. Fruit candy
28. Furniture
29. Hair Dye
30. Hair Oil
31. Infant dress
32. Inverter
33. Jams
34. Jeans
35. Jewellery
36. Kurti
37. Ladies bag
38. Ladies footwear
39. Learning Toys
40. Lipstick
41. Microwave oven
42. Mixers
43. Mobile
44. Moisturizer
45. Music player
46. Nail polish
47. Newspaper
48. Noodles
49. Pen
50. Pen drive
51. Pencil
52. Pickles
53. Razor
54. Ready Soups
55. Refrigerator
56. RO system
57. Roasted snacks
58. Salt
59. Sarees
60. Sauces/ Ketchup
61. Shampoo

62. Shaving cream
63. Shoe polish
64. Shoes
65. Squashes
66. Suitcase/ airbag
67. Sunglasses
68. Tea
69. Tiffin Wallah
70. Toothpaste
71. Wallet
72. Washing detergent
73. Washing machine
74. Washing powder
75. Water bottle
76. Water storage tank
77. Wipes

The students are required to make a project on the identified product/service keeping in mind the following.

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors Unique Selling Proposition [U.S.P.]?
5. Does your product have any range give details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label of your product.
9. Draw a logo for your product.
10. Draft a tag line.
11. What is the selling price of your competitor's product?
  - (i) Selling price to consumer
  - (ii) Selling price to retailer
  - (iii) Selling price to wholesaler

What is the profit margin in percentage to the:

- Manufacturer
- Wholesaler
- Retailer

12. How will your product be packaged?
13. Which channel of distribution are you going to use? Give reasons for selection?
14. Decisions related to warehousing, state reasons.
15. What is going to be your selling price?
  - (i) To consumer
  - (ii) To retailer
  - (iii) To wholesaler
16. List five ways of promoting your product.
17. Any schemes for:
  - (i) The wholesaler
  - (ii) The retailer
  - (iii) The consumer
18. What is going to be your 'U.S.P'?
19. What means of transport you will use and why?
20. Draft a social message for your label.
21. What cost effective techniques will you follow for your product?
22. What cost effective techniques will you follow for your promotion plan?

At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing:

- Product

- Place
- Price
- Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in
2. Brand name and the product
3. Range of the product
4. Identification mark or logo
5. Tagline
6. Labeling and packaging
7. Price of the product and basis of price fixation
8. Selected channels of distribution and reasons thereof
9. Decisions related to transportation and warehousing. State reasons
10. Promotional techniques used and starting reasons for deciding the particular technique
11. Grading and standardization

### **PRESENTATION AND SUBMISSION OF PROJECT REPORT**

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission:

1. The total length of the project will be of 25 to 30 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence:
  - Cover page should include the title of the Project, student information, school and year
  - List of contents
  - Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped)
  - Introduction
  - Topic with suitable heading
  - Planning and activities done during the project, if any
  - Observations and findings of the visit
  - Conclusions (summarized suggestions or findings, future scope of study)
  - Photographs (if any)
  - Appendix

### **ACCOUNTANCY:**

Project Work One specific project based on financial statement analysis of a company covering any two aspects from the following: 1. Comparative and common size financial statements 2. Accounting Ratios 3. Segment Reports 4. Cash Flow Statements

### **ECONOMICS:**

Mode of presentation/submission of the Project: At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner. The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verified. Marking Scheme: Marks are suggested to be given as – S. No. Heading 1. Relevance of the topic Marks Allotted 2. 3 Knowledge Content/Research Work 3. 6 Presentation Technique 4. 3 Viva-voce Total 8 20 Marks

Class XII • Micro and Small Scale Industries • Food Supply Channel in India • Contemporary Employment situation in India • Disinvestment policy of the government • Goods and Services Tax Act and its Impact on GDP • Health Expenditure (of any state) • Human Development Index • Inclusive Growth Strategy • Self-help group • Trends in Credit availability in India • Monetary Policy Committee and its functions • Role of RBI in Control of Credit • Government Budget & its Components • Trends in budgetary condition of India • Exchange Rate determination – Methods and Techniques • Currency War – reasons and repercussions • Livestock – Backbone of Rural India • Alternate fuel – types and importance • Sarva Shiksha Abhiyan – Cost Ratio Benefits • Golden Quadrilateral- Cost ratio benefit • Minimum Support Prices • Relation between Stock Price Index and Economic Health of a Nation • Waste Management in India – Need of the hour • Minimum Wage Rate – Approach and Application • Digital India- Step towards the future • Rain Water Harvesting – A solution to water crisis • Vertical Farming – An alternate way • Silk Route- Revival of the past • Make in India – The way ahead • Bumper Production- Boon or Bane for the farmer • Rise of Concrete Jungle- Trend Analysis • Organic Farming – Back to the Nature • Aatmanirbhar Bharat • e-Rupee (e- ₹) • Sri Lanka's Economic Crisis • Sustainable Development Goals (SDG's) • Environmental Crisis • Comparative Study of Economies (Maximum three economies) • New Education Policy (NEP) 2020: A Promise for a New Education System • G-20: Inclusive and Action Oriented • Amrit Kaal: Empowered and Inclusive Economy • Cashless Economy • Any other newspaper article and its evaluation on basis of economic principles • Any other topic

## **COMPUTER SCIENCE**

S.No	Unit Name	Marks (Total=30)
1	Lab Test: 1. Python program (60% logic + 20% documentation + 20% code quality)	8
	2. SQL queries (4 queries based on one or two tables)	4
2	Report file: <ul style="list-style-type: none"> <li>• Minimum 15 Python programs.</li> <li>• SQL Queries – Minimum 5 sets using one table / two tables.</li> <li>• Minimum 4 programs based on Python – SQL connectivity</li> </ul>	7
3	Project (using concepts learnt in Classes 11 and 12)	8
4	Viva voce	3

Suggested Practical List: Python Programming ● Read a text file line by line and display each word separated by a #. ● Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file. ● Remove all the lines that contain the character 'a' in a file and write it to another file. ● Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message. ● Create a binary file with roll number, name and marks. Input a roll number and update the marks. ● Write a random number generator that generates random numbers between 1 and 6 (simulates a dice). ● Write a Python program to implement a stack using list. ● Create a CSV file by entering user-id and password, read and search the password for given userid. Database Management ● Create a student table and insert data. Implement the following SQL commands on the student table: o ALTER table to add new attributes / modify data type / drop attribute o UPDATE table to modify data o ORDER By to display data in ascending / descending order o DELETE to remove tuple(s) o GROUP BY and find the min, max, sum, count and average ● Similar exercise may be framed for other cases. ● Integrate SQL with Python by importing suitable module. 7. Suggested Reading Material ● NCERT Textbook for COMPUTER SCIENCE (Class XII) ● Support Materials on the CBSE website.

## **HISTORY**

### A FEW SUGGESTIVE TOPICS FOR CLASS XII PROJECTS

1. The Indus Valley Civilization-Archaeological Excavations and New Perspectives
  2. The History and Legacy of Mauryan Empire
  3. “Mahabharat” - The Great Epic of India
  4. The History and Culture of the Vedic period
  5. Buddha Charita
  6. A Comprehensive History of Jainism
  7. Bhakti Movement- Multiple Interpretations and Commentaries.
  8. The Mystical Dimensions of Sufism
  9. Global Legacy of Gandhian Ideas
  10. The Architectural Culture of the Vijayanagar Empire
  11. Life of Women in the Mughal Rural Society
  12. Comparative Analysis of the Land Revenue Systems Introduced by the Britishers in India
  13. The Revolt of 1857- Causes; Planning & Coordination; Leadership, Vision of Unity
  14. The Philosophy of Guru Nanak Dev
  15. The Vision of Kabir
  16. An Insight into the Indian Constitution
  17. Comparative Study of Stupas and Pillar Edicts
  18. Comparative Study of Mughal and Vijayanagar Architecture
- (Projects are an imperative component in enhancing students learning with the related themes. In the research project, students can go beyond the textbook and explore the world of knowledge. They can conceptualise under the embedded themes. Forms of rubrics are a significant aspect and to be discussed in the classroom itself for clear understanding of concept & for assessment.

## **PHYSICAL EDUCATION**

<b>PRACTICAL</b>	<b>(Max. Marks 30)</b>
Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)*	6 Marks
Proficiency in Games and Sports (Skill of any one IOA recognized Sport/Game of Choice)**	7 Marks
Yogic Practices	7 Marks
Record File ***	5 Marks
Viva Voce (Health/ Games & Sports/ Yoga)	5 Marks

➤ \*Test for CWSN (any 4 items out of 27 items. One item from each component: Aerobic Function, Body Composition, Muscular strength & Endurance, Range of Motion

or Flexibility) ➤ \*\*CWSN (Children With Special Needs – Divyang): Bocce/Boccia , Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of choice. ➤ \*\*Children with Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/Game must be different from Test - 'Proficiency in Games and Sports' \*\*\*Record File shall include: ➤ Practical-1: Fitness tests administration. (SAI Khelo India Test) ➤ Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease. ➤ Practical-3: Anyone one IOA recognized Sport/Game of choice. Labelled diagram of Field & Equipment. Also, mention its Rules, Terminologies & Skills.

**NOTE: For any clarification kindly contact to your Subject concerning Teacher.**