



PRATAP
INTERNATIONAL SCHOOL
POCKET -2, SEC- 24, ROHINI, NEW DELHI

HOLIDAY HOMEWORK
CLASS - XII
SESSION 2020-21

ENGLISH:

Attempt all questions.

Q-1 You want to sell your house at 15, Rajendra Nagar, New Delhi. Draft an advertisement in not more than 50 words, giving the necessary details, to be published in the classified columns of “The Times Of India”. You are Krishna/ Alka.

Q-2 You are Anuj, a social activist. Design a poster to observe “Wildlife Protection Week” in your city, in 50 words.

Q-3 G.L Institute recently organized a “No Tobacco” workshop. Write a report on the same to be published in the newspaper in 150-200 words.

Q-4 Do Revision of all the chapters completed till now.

CHEMISTRY:

A. Make a investigatory project on any one of the following topic:

- 1) On green chemistry- Bio-diesel and bio-petrol
- 2) On sterilization of water using bleaching powder
- 3) On analysis of fertilizers
- 4) On measuring the amount of Acetic acid in vinegar
- 5) On determination of contents of cold drinks
- 6) To study the quantity of casein in milk
- 7) On presence of insecticides and pesticides in fruits and vegetables
- 8) On preparation of soyabean milk
- 9) On study of rate of fermentation of juices
- 10) Determination of caffeine in tea samples
- 11) Determination of content of toothpaste
- 12) Dyeing of wool, silk and cotton in malachite green
- 13) Effect of Potassium Bisulphite as a food preservatives

Things should be mentioned:

- a) Aim
- b) Apparatus required
- c) Chemicals used
- d) Principle
- e) Procedure
- f) Observation table
- g) Result
- h) Precautions
- i) Pictures while doing experiment in the laboratory

B. Learn the following chapters:

- 1) Solid states
- 2) Haloalkanes and haloarenes
- 3) Polymers
- 4) Surface chemistry
- 5) Electrochemistry

- Read all chapters thoroughly and do practice of NCERT, intext and extra question from these chapters.
- Complete your chemistry practical.

PHYSICS:

1. Complete your Practical file and Activity File.

2. Prepare project

Suggested 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).
 - (b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equi convex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To design an appropriate logic gate combination for a given truth table.
5. 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.
6. 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.
7. 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.
8. 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 A.C. source of adjustable frequency.
9. To study the earth's magnetic field using a tangent galvanometer.

PRACTICALS

Total Periods: 60

1. Each project should be minimum 15 to 20 A4 size (Executive bond) paper including conclusion and index.
 2. Need to research on the topic and learn.
 3. Photographs and creative presentation will be a part of project.
 4. Projects should be hand written using blue/ blue-black ink and no prints should be kept (Except the photographs)
 5. No striking is allowed in the project and to be neat and should have good handwriting
 6. Prepare Model / Chart related to the project
- Record of at least 12 Experiments [with 6 from each section], to be performed by the students.
 - Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
 - Report of the project to be carried out by the students.

EVALUATION SCHEME

Time Allowed: 3 hours

Max. Marks: 30

Two experiments one from each section	7+7 Marks
Practical record (experiment and activities)	S Marks
One activity from any section	3 Marks
Investigatory Project	3 Marks
Viva on experiments, activities and project	S Marks
Total	30 Marks

BIOLOGY:

1. Complete your Biology Practical File.
2. Prepare An Investigatory Project.

Practicals

A. List of Experiments :

1. Prepare a temporary mount to observe pollen germination.
2. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
3. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organism.
4. Study the presence of suspended particulate matter in air at two widely different sites.
5. Study the plant population density by quadrat method.
6. Study the plant population frequency by quadrat method.
7. Prepare a temporary mount of onion root tip to study mitosis.
8. Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch. 9. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.

B. Study/observation of 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. Comment on symptoms of diseases that they cause.
10. Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations.
11. Two plants and two animals (models/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.

Suggested Investigatory Projects

1. Diabetes and exercise.
2. Drug addiction.

3. Study of effects of antibiotic on microorganism.
4. Study on Probiotics and their preparation.
5. Recombinant DNA technology in Today's Medicine.
6. Study on Gene Therapy.
7. Spermatogenesis.
8. Comparing Varying Levels of Oxygen Aeration in Increasing Plant Production.
9. Sexually Transmitted Diseases and their prevention.
10. Case Study on Algal Blooms and preventive measures.

Guidelines for Projects :

1. Each project should have minimum 15 to 20 A4 size (Executive Bond) sheet including conclusion and index.
2. Need to research on the topic and learn.
3. Photographs and creative presentation will be a part of project.
4. Projects should be hand written using blue / blue – black ink and no prints should be kept (Except the photographs).
5. No striking is allowed in the project and to be neat and should have good handwriting.
6. Prepare Chart related to the project.

HISTORY:

History is one of the most important disciplines in school education. It is the study of the past, which helps us to understand our present and shape our future. It promotes the acquisition and understanding of historical knowledge in breadth and in depth across cultures. The course of history in senior secondary classes is to enable to students to know that history is a critical discipline, a process of enquiry, a way of knowing about the past rather than just a collection of facts. The syllabus helps them to understand the process, through which a historian collects, chooses, scrutinizes and assembles different types of evidences to write history. The syllabus in class-XI is organized around some major themes in world history. In class XII the focus shifts to a detailed study of some themes in ancient, medieval and modern Indian history. CBSE has decided to introduce project work in history for classes XI and XII in 2013-14 as a part of regular studies in classroom, as

project work gives students an opportunity to develop higher cognitive skills. It takes students to a life beyond text books and provides them a platform to refer materials, gather information, analyze it further to obtain relevant information and decide what matter to keep and hence understand how history is constructed.

A. Objectives of Project Work :

Project work will help students:-

- ✓ To develop skills to gather data from a variety of sources investigate diverse viewpoints and arrive at logical deductions.
- ✓ To develop skills to comprehend, analyze, interpret, evaluate historical evidence and also understand the limitations of historical evidence.
- ✓ To develop 21st century managerial skills of co-ordination, self-direction and time management.
- ✓ To give a multidisciplinary approach to topics.
- ✓ To learn to work on diverse cultures, races, religions and lifestyles.
- ✓ To learn through constructivism a theory based on observation and scientific study.
- ✓ To inculcate a spirit of inquiry and research.
- ✓ To communicate data in the most appropriate form using a variety of techniques.
- ✓ To provide greater opportunity for interaction and exploration.
- ✓ To understand contemporary issues in context to our past.

B. Assessment of the Project Work

Sl No	Allocation of Marks	Division of Marks
1	Project synopsis	2 Marks
2	Data/Statistical analysis/Map work	3 Marks
3	Visual/overall presentation	5 Marks
4	Analysis/explanation and interpretation	5 Marks

5	Bibliography	1 Marks
6	Viva	4 Marks
Total Marks		20

C. Suggested Topics for Project Work

Please choose from the mentioned suggested topics.

1. Town planning and Artifacts of the Harappan civilization
2. Mahabharata through a Readers eye.
3. The mysteries behind the mound of dead –Mohenjo-Daro.
4. Find out if there are any museums in your town. Visit one of them and write a report on any items, describing how old they are, where they were found, and why you think they are on display
5. Great philosophers of India- Gautam Buddha and Mahavira.
6. Insight and Reflection of Bernier’s notions of The Mughal Empire
7. “Mahatma Gandhi” – A legendary soul.
8. To reconstruct the History of Vijayanagar through the Archaeology of Hampi .
9. The tribal groups of India- The pahariyas and the Santhals.
10. Through the Travelers Eyes. Ibn Batuta, Al Biruni, Marco Polo, Nicolo Conti, Abdur Razaq, Francois Bernier Athanasius Nikitin, Duarte Barbosa
11. Understanding the Bhakti-Sufi Movement in India. Kabir, Guru Nanak, Mira Bai, Bassavana.
12. Depiction of Life during Mughal period through Paintings. Role of women in the Mughal empire- with special reference to Nur Jahan, Gulbadan Banu, Jahanara,Roshanara.
13. The process behind the framing of the Indian Constitution .
14. How the Partition in 1947 was not just a division of territory but also a division of hearts and how it affected the common people.

D. Mandatory guidelines for Project Work

- The project work to be done in individually or group.
- Each group to select one topic.
- Each student to have a separate project file.

- The project should be of minimum of 30-40 pages each.
- Use colourful sheets for the work and spiral binding.
- Each group has to prepare Power point presentation related to their topic.
- The groups can present role play, drama, songs, bulletin board, poem related to the topic.
- The project should be totally research and survey based.
- The project must be neat and well presented and must be completely handwritten.
- The topic and the group members must be first approved by the teacher.
- The project should be done on inter leaf A-4 sized sheets.
- Students have to preserve the initial draft of the project as well as any research papers that they may have used. (To be attached at the end of the project)
- Revise and write all the assignments of the chapters done in the class.
- Prepare Power Point Presentation of the chapters allocated to the Groups.
- Revise and practice the map work

POLITICAL SCIENCE

Political Science Project- Prepare a project according to CBSE guidelines. Topics as discussed in the classroom. Some suggested topics are:

1. Analyze the importance of elections in a democratic country.
2. Partition- Theory behind it and its legacy.
3. Partition- Theory behind it and its legacy
4. State Reorganisation– Do we still require it?
5. Election Commission- its changing role and importance
6. One Party Dominance-Congress to BJP post 2014 (depending upon the election results)
7. Change in India's Foreign Policy
8. India's relation with its neighbours- any one country can be studied
9. Emergency- Reasons and Consequences- a role play or skit with a group of five students.

10. Popular movements- Any one movement can be used from chapter 6 and a relation drawn with the any current protest on that issue
11. Regional Aspiration – Separatist Movement- Kashmir
12. Role of Regional Parties- A detailed study of any one
13. Naxalite Movement- How can government address the problem
14. Politics of Reservation in India- Constitution- SC and ST, Mandal- OBC, NDA- EWS 14.
15. Coalition Politics- Study of UPA and NDA 15. Cold war- Is the world heading to Cold war 2- USA and China
16. China – The next Super Power 17. Post Soviet Republics- Life after Disintegration.
17. Environment- Sustainable development- Need of the hour
18. Globalisation – Eco. Pol., and Cultural Impact on Third World.
19. Cold war Situation.
20. Lockdown Situation in India.

General Instructions:

1. Project can be individual/ pair/ group of 4-5 each.
2. It should be a handwritten project on a A4 size sheet.
3. Project should be summed up in 10-15 pages. (in case of pair and group the no. of pages can exceed to 20-25)
4. It should be well researched based on facts and figures and pictorial.
5. The project must have a Table of contents, Title/ Cover page, Acknowledgement, Bibliography, Analysis with headings and sub-headings.
6. It must include relevant news clippings, facts and figures, and pictures.
7. You can plan a survey or an interview to support your research.
8. As per CBSE suggestive list of activities are Role Play, Presentation, Model, Field Survey, Mock Event etc.

Students should prepare the Political Science Project under the following headings:-

1. Acknowledgement
2. Index
3. Cover page
4. Project synopsis
5. Data/Statistical analysis/Map work

6. Analysis/explanation and interpretation
7. Bibliography Political Science: A. Political Science Project- Prepare a project according to C.B.S.E Guide lines.

Read and revise the chapters taught in the class. Answer the questions sent through the worksheet.

Read the newspaper daily especially the editorial.

ECONOMICS

Answer the following Questions:

1. What is the difference between micro economics and macro economics?
2. What is circular flow of income and its importance in national income?
3. What lowers the significance of GDP as an index of welfare?
4. Difference between factor income and transfer income?
5. What is real flow and money flow?
6. What are GDP deflators?

Prepare your project: It should be neat and clean Students have to prepare project themes.

Topics:

1. GST
2. Demonetisation
3. Poverty
4. GDP and Welfare
5. Employment
6. Inflation
7. Banking system of India
8. Economic Reforms
9. Government Budgets.
10. Unemployment.
11. Micro and small scale industries.
12. Organic Farming.
13. Rain water Harvesting
14. Sarwa Shkshya Aabhiyan.
15. Digital India-Steps towards future.
16. Waste Management in India.
17. Contemporary Employment situation in India.
18. Livestock- Backbone of Rural India.
19. Make in India-The way ahead,
20. Government Budget and its Components.

The objectives of the project work are to enable learners to:

- ✓ Probe deeper into theoretical concepts learnt in classes XI and XII

- ✓ Analyse and evaluate real world economic scenarios using theoretical constructs and arguments
- ✓ Demonstrate the learning of economic theory
- ✓ Follow up aspects of economics in which learners have interest.

- ✓ Develop the communication skills to argue logically .The expectations of the project work are that:
 - Learners will complete only ONE project in each academic session
 - Project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably hand-written
 - It will be an independent, self-directed piece
 - Arrange a presentation of the project file Scope of the project:
 - Learners may work upon the following lines as a suggested flow chart: Choose a title/topic Collection of the research material/data Organization of material/data Present material/data Analysing the material/data for conclusion Draw the relevant conclusion Presentation of the Project Work

Expected Checklist:

- ✓ Introduction of topic/title
- ✓ Identifying the causes, consequences and/or remedies
- ✓ Various stakeholders and effect on each of them
- ✓ Advantages and disadvantages of situations or issues identified
- ✓ Short-term and long-term implications of economic strategies suggested in the course of research
- ✓ Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- ✓ Presentation and writing that is succinct and coherent in project file
- ✓ Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc. 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 Marks Allotted

	Topics	Marks
1	Relevance of the topic	3
2	Knowledge Content/Research Work	6
3	Presentation Technique	3
4	Viva-voce	8
Total Marks		20

PHYSICAL EDUCATION

*****Practical File shall include:***

Practical-1: Fitness tests administration for all items.

i) AAHPER Physical fitness test

ii) Conduct barrow three general motor fitness test on 10 students

Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

i) obesity

Ii)Diabetes

iii) Asthma

iv) Hypertension

v) back pain

Practical-3: Procedure for administering Senior Citizen Fitness Test (6 tests) for 5 elderly family members.

Practical-4: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules, Terminologies & Skills)

** Basketball, Football, Kabaddi, Kho-Kho, Volleyball, Handball, Hockey, Cricket, Bocce & Unified Basketball [CWSN (Children With Special Needs - Divyang)]*

i). Discuss in detail the History of the game.

a. International History.

b. National History

ii). Explain the Fundamental Skills of the game.

iii). Describe the Rules and Regulations of the game.

iv). Write down the Sports Personalities of the game

a. International Player

b. National Player

Assignment(notebook)

Q.1. Write down the role of the various committees before a Tournament.

Q.2 Enlist the name various committees during the tournament? Explain the Responsibilities of any four Committees

Q.3 Explain the staircase method of league tournament and draw the fixture of 12 teams in staircase methods.

Q 4 Draw the fixture for 27 team on the basis knockout tournament

Q.5 Draw the fixture for 9 team on the basis of League tournament use cyclic method

Q 6 Make 20 M C Q from chapter no. 1

BUSINESS STUDIES

Prepare Projects on one of the following:

- A. Principles of Management**
- B. Marketing**

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.
 - Conclusions (summarized suggestions or findings, future scope of study).
 - Photographs (if any).
 - Appendix
 - Teacher's observation.
 - Signatures of the teachers.

- At the completion of the evaluation of the project, it should be punched in the centre so that the report may not be reused but is available for reference only.
- The project will be returned after evaluation. The school may keep the best projects.

ACCOUNTANCY

Students will prepare a Project File to record their work related to the problems attempted by them in the following format :

1. First page of the file should describe title of work, identity of student, school, and the teacher concerned.
2. Index to indicate columns for title of work, page no., date, teacher's remarks and signature.
3. The format for Project Work will be :

Statement of the problem/Name of the Project

- Objectives
- Period of Study
- Source Material
- Tools of Analysis used
- Processing and Tabulation of data
- Diagrammatic/graphic presentation- pie-diagrammes, bar diagrammes and graphs
- Derivations, Interpretation and Conclusion.
- Assumptions (if any)

Project File should be neatly handwritten and presentable with page numbers. Each step of the solution needs to be highlighted.

Conclusions drawn should be placed in boxes at the end.

Include these three parts in project also:

1. Comprehensive Project
2. Specific Project 1
3. Specific Project 2

MATHS:

1. If $\begin{bmatrix} x+3y & y \\ 7-x & 4 \end{bmatrix} = \begin{bmatrix} 4 & -1 \\ 0 & 4 \end{bmatrix}$, find the values of x and y .

2. If matrix $A = [1 \ 2 \ 3]$ write AA' , where A' is the transpose of matrix A .

3. Write the value of $x - y + z$ from the following equation:

$$\begin{bmatrix} x+y+z \\ x+z \\ y+z \end{bmatrix} = \begin{bmatrix} 9 \\ 5 \\ 7 \end{bmatrix}$$

4. If A is a 3×3 matrix, whose elements are given by $a_{ij} = \frac{1}{3}|-3i + j|$, then write the value a_{23} .

5. If A is a square matrix and $|A| = 2$, then write the value of $|AA'|$, where A' is the transpose of matrix A .

6. If $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$, verify that $A^2 - 4A - 5I = O$.

7. Obtain the inverse of the following matrix, using elementary operations : $A = \begin{bmatrix} 3 & 0 & -1 \\ 2 & 3 & 0 \\ 0 & 4 & 1 \end{bmatrix}$

Using properties of determinants, prove that

$$\begin{vmatrix} a-b-c & 2a & 2a \\ 2b & b-c-a & 2b \\ 2c & 2c & c-a-b \end{vmatrix} = (a+b+c)^2.$$

9. Using properties of determinants, show that

$$\begin{vmatrix} a^2+1 & ab & ac \\ ab & b^2+1 & bc \\ ca & cb & c^2+1 \end{vmatrix} = 1 + a^2 + b^2 + c^2$$

10. If $A = \begin{bmatrix} 2 & -3 & 5 \\ 3 & 2 & -4 \\ 1 & 1 & -2 \end{bmatrix}$, find A^{-1} . Using A^{-1} solve the following system of equations :

$$2x - 3y + 5z = 16; 3x + 2y - 4z = -4; x + y - 2z = -3$$

11. Prove that $\begin{vmatrix} a & a+b & a+b+c \\ 2a & 3a+2b & 4a+3b+2c \\ 3a & 6a+3b & 10a+6b+3c \end{vmatrix} = a^3$.

12. If $A^{-1} = \begin{bmatrix} 3 & -1 & 1 \\ -15 & 6 & -5 \\ 5 & -2 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$, find $(AB)^{-1}$.

A school wants to award its students for the values of Honesty, Regularity and Hard work with a total cash award of ₹ 6,000. Three times the award money for Hard work added to that given for Honesty amounts to ₹ 11,000. The award money given for Honesty and Hard work together is double the one given for Regularity. Represent the above situation algebraically and find the award money for each value, using matrix method. Apart from these values, namely, Honesty, Regularity and Hard work, suggest one more value which the school must include for awards.

[Delhi 2013, Value Based Question]