

**DELHI PUBLIC SCHOOL ALIGARH**  
**CLASS-XII**  
**HOLIDAY HOME WORK-2024-25**

**ENGLISH:**

**BOARD PROJECT**

**1. MARKING SCHEME:**

- The project consists of 20 MARKS.
- 10 MARKS will be allotted for the PROJECT FILE and remaining 10 MARKS for the VIVA based on the file.
- The viva will be conducted according to the date sheet issued by the Examination Department for Board Practical.
- Project file needs to be submitted in the first week of July.

**2. CONTENT OF THE PROJECT FILE:**

- Cover page, with the title of the project, school details and details of the student.
- Certificate of Completion under the guidance of the teacher.
- Objectives of the topic.
- Action Plan for the completion of assigned tasks (steps involved in doing the project).
- The 800–1000 word essay/report.
- Student reflections (what new learning experience/outcome you have achieved after completing the project).
- If possible, photographs that capture positive learning experience of the students (collages/pics from various online sources).
- List of Resources/Bibliography/ Citation (Last page of the project file)

**3. INSTRUCTIONS:**

- Refer to the links of the podcasts attached according to your Roll No.
- All these podcasts are available on google podcasts. ([TED Talks Daily](#))
- Listen carefully two to three times to these podcasts, documentaries, interviews etc.
- Do a thorough research on the topic.
- Prepare a report/essay in about 800-1000 words describing the topic/issue/giving your own opinion/suggestions/measures/viewpoints/its impact on people/your learning experience.
- You can also state the name of various speakers/people (in the given links), quote them and express their viewpoints.
- The project should be neat, legible, with an emphasis on quality of content, accuracy of information, creative expression, proper sequencing and should be relevant as per your assigned topic.
- Project to be submitted handwritten on ruled worksheets or A4 size paper.
- **Plagiarism** is a serious offence, and no two scripts should be found same. Candidate will be penalized if found sharing research work with anyone.
- There are 20 topics. Topics are distributed Roll-No Wise. Adhere to your topic only.

**4. LINKS: google podcasts ( TED Talks Daily)**

ROLL NO. 1, 21

**AI**

ROLL NO. 2, 22

**[Perils of following career passion](#)**

ROLL NO. 3, 23

**[The art of story telling](#)**

ROLL NO. 4, 24

**[Ideas change everything](#)**

ROLL NO. 5, 25

**[Sense of self](#)**

ROLL NO. 6, 26

## Well being

ROLL NO. 7, 27

## Let your garden grow wild

ROLL NO. 8, 28.

## Connecting with people

ROLL NO. 9, 29.

## Key to happiness

ROLL NO. 10, 30.

## Power of intuition

ROLL NO. 11, 31.

## Mysteries of Universe

ROLL NO. 12, 32.

## How to outsmart bias

ROLL NO. 13, 33.

## Radical candor and empathy

ROLL NO. 14, 34

## Finding purpose in adversity

ROLL NO. 15, 35.

## Battling with climate change

ROLL NO. 16, 36.

## Power of poetry

ROLL NO. 17, 37.

## Nanoparticles

ROLL NO. 18, 38.

## Ukraine's fight for democracy

ROLL NO. 19, 39.

## Creating a culture of belonging

ROLL NO. 20, 40

## Let curiosity lead

ROLL NO. 41,42

## Infectious generosity

ROLL NO. 43,44

## Science of Happiness

## 2. DIPASHA

We are back with our 2024 edition of DIPASHA, our annual school magazine. Share your contribution in the form of an article, poem, painting or illustration for the section DOWN THE MEMORY LANE. Describe your experience over the years or any fond memory at DPS Aligarh.

All work has to be typed in Microsoft Word in Font style: Calibri and Font size: 12. Write your full name, class and Section at the end of your writing. Attach your colored passport size photograph and mail it by June 20, 2024 at [arushi@dpsaligarh.org](mailto:arushi@dpsaligarh.org)

## **PHYSICS:**

- Students of class XII are instructed to prepare a project report on below mentioned topics and submit the same in first week of July positively.

### TOPICS FOR PROJECT REPORTS:-

1. SEMICONDUCTOR
2. RAIN ALARM
3. AC GENERATOR
4. AUTOMATIC ELECTRIC TRAIN BARRIER
5. TRANSFORMER
6. RECTIFIER
7. CAPACITOR

8. PHOTOELECTRIC EFFECT
9. ASTRONOMICAL TELESCOPE
10. ELECTROMAGNETIC INDUCTION
11. INTERFERENCE OF LIGHT
12. POLARISATION OF LIGHT
13. DIFFRACTION OF LIGHT
14. FACTORS AFFECTING INTERNAL RESISTANCE OF CELL

❖ Students having Class roll. no's from 1 to14,from 15 to 28 , from 29 to 42 and 43 to56 (if exists) will follow the above sequence of topics.

❖ For eg. Roll no. 1,15 ,29 and 42 will prepare their project on semiconductor, Roll no. 2,16,30 and 44 will prepare their project on Rain alarm so on..

❖ You can also choose any one from the suggested investigatory projects recommended by the CBSE.

❖ Report of your project should be neatly written and should be according to the format mentioned below.

- Name /Title of the project
  - List of components used along with their specifications
  - Theory/ Principle behind the working of project
  - Related diagrams
  - Working in detail /procedure
  - Further modifications (if any) can be done
- Bibliography

## **CHEMISTRY:**

1. Prepare an investigatory project assigned to you involving laboratory testing and collecting information from other sources.

2. Revise the following units:

- 1) Solutions
- 2) Electrochemistry
- 3) Chemical Kinetics

## **MATHEMATICS:**

Link for Holiday home work:- Click to open

[https://drive.google.com/file/d/1\\_MmemGzvVJwa8bWc2uF8PT-0hhbX\\_WRH/view?usp=sharing](https://drive.google.com/file/d/1_MmemGzvVJwa8bWc2uF8PT-0hhbX_WRH/view?usp=sharing)

## **BIOLOGY:**

Q.Prepare an investigatory project on the given topics.

1. DNA Fingerprinting.
2. Recombinant DNA technology in technology in today's medicine.
3. Human genome project
4. Antibiotics
5. Effects of cannabis on human body.
6. Human cloning
7. Fermentation process
8. Pedigree analysis
9. Effects of Diet on blood glucose
10. AIDS
11. Cancer
12. Drug addiction
13. Malaria
14. Pollination
15. Spermatogenesis

16. Microbes in human welfare
17. Detailed study on infertility its causes and treatment.
18. Biotechnology and its application.
19. Vaccines and vaccination.
20. Effects of pesticides in food chain.
21. Robotic surgery.

Note: If any wants to prepare on some other topic than acknowledge me before preparation.

## **ACCOUNTANCY:**

### **COMPREHENSIVE PROJECT**

1. Instructions for the Front Page
  - a. Front page with the logo of DPS
  - b. Acknowledgement
  - c. Certificate
  - d. Index
2. Instructions for the Project
  - a. What is Accounting, Accountancy , features, Branches, Qualitative elements (With explanation)
  - b. Rules of Debit & Credit ( Along with Traditional and modern approach)
  - c. Subsidiary Book (Cash Book, Purchase Book, Sale Book, Purchase return Book, Sale return Book.)  
(According to mention in your allotted Question)
  - d. Journal
  - e. Ledger
  - f. Trail Balance
  - g. Financial Statement (Trading, Profit & Loss and Balance Sheet.)
3. Material Required;
  1. A-4 Size one side blank and one side line sheet. (Mandatory)
  2. No color papers are required to use. (Mandatory)
  3. Project file should be neatly handwritten and presentable with page numbers. Each step of the salutation needs to be highlighted. Conclusion drawn should be placed in boxes at the end.
  4. Comprehensive project of any sole proprietorship business. This may state with journal entries and their ledgering, preparation of Trial balance.
  5. You will be allowed to select any business of their choice or develop the transaction of imaginary business. The project is to run through the chapters and make the project an interesting process. The amounts should emerge as more realistic and closer

## **BUSINESS STUDIES:**

Students are required to submit the Data Analysis and interpretation on the topic (already assigned) given below:

- I. Project One: Elements of Business Environment
- II. Project Two: Stock Exchange
- III. Project Three: Marketing
- IV. Project Four: Principles of Management

NOTE: The project work had already been discussed in the class, moreover the detailed guidelines and topic allotment list are uploaded on Entab as well as on the class Whatsapp Group.

## **ECONOMICS:**

1-Write a project report on the following topic in 4-5 pages:

“A Journey from micro to macro – a need of the century: Pre and Post Great depression 1929”

(Details to be covered: What factors were responsible for the change in approach from “Supply creates its own demand – classical economists to “Demand creates its own supply – Keynes”

2-With reference to the concept of positive/negative externality under the heading GDP and welfare, prepare a project report of 4-5 pages on any of the following topics:

“Vision of Aligarh as a SMART CITY”

(Details to be covered: what changes do you expect and how will it affect the quality of life of people of Aligarh and its neighbouring areas)

OR

Aligarh got a project named “DEFENCE CORRIDOR”

(Details to be covered: how will this project affect the employment situation and welfare part of the people of Aligarh)

### HISTORY:

1. Analyze and interpret the meaning of three unseen passages each from the following chapters of history text book: -

- (A) Harappan Civilization.
- (B) Kings, farmers and towns.
- (C) Kingship, caste and class.
- (D) Thinkers, beliefs and buildings.

NOTE: - Write the question answer related with the passage in your school note book.

2. Locate and label the places as mentioned in the above-mentioned chapters and paste them in the school note book.

### GEOGRAPHY:

1. Complete the Practicals given to you and prepare the Practical file.

2. Learn the chapters completed till May 27, 2024.

3. On political outline map of the world mark the following and paste them in your class register.

4-Primary Activities	<ul style="list-style-type: none"><li>· Areas of subsistence gathering (Fig 4.2)</li><li>· Major areas of nomadic herding of the world (4.4)</li><li>· Major areas of commercial livestock rearing (4.6)</li><li>· Major areas of extensive commercial grain farming (4.12)</li><li>· Major areas of mixed farming of the World (4.14)</li></ul>
7-Transport, Communication and Trade	<p>Terminal Stations of Transcontinental Railways– Trans-Siberian, Trans Canadian, Trans-Australian Railways</p> <p><b>Major Sea Ports</b></p> <ul style="list-style-type: none"><li>· Europe: North Cape, London, Hamburg</li><li>· North America: Vancouver, San Francisco, New Orleans</li><li>· South America: Rio De Janeiro, Colon, Valparaiso</li><li>· Africa: Suez and Cape Town</li><li>· Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata</li><li>· Australia: Perth, Sydney, Melbourne</li></ul> <p><b>Major Airports:</b></p> <ul style="list-style-type: none"><li>· Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden</li><li>· Africa: Johannesburg &amp; Nairobi</li><li>· Europe: Moscow, London, Paris, Berlin and Rome</li><li>· North America: Chicago, New Orleans, Mexico City</li><li>· South America: Buenos Aires, Santiago</li><li>· Australia: Darwin and Wellington</li></ul> <p><b>Inland Waterways</b></p> <ul style="list-style-type: none"><li>· Suez Canal, Panama Canal, Rhine waterways and St. Lawrence Seaways</li></ul>

## POLITICAL SCIENCE:

1. Analyze and interpret the meaning of cartoons/pictures displayed in the following chapters of Political Science text book: -

- (A) Challenges of nation building.
- (B) Era of one Party dominance
- (C) The end of bipolarity.
- (D) Alternative centers of power.
- (E) Contemporary South Asia.
- (F) International organizations.

NOTE: Write the question answer related with the cartoons/pictures in your school note book.

2. ACTIVITY: -

- (A) Select any five cold war allies each of the Soviet Union and the U.S. Collect information on the political, social and economic profile of these countries during the cold war days and pen them down in your school note book.
- (B) "Reforming the UN means restructuring of the Security Council". Do you agree with this statement? Write arguments for or against this position.
- (C) It is said that the nation is to a large extent an "imagined community" held together by common beliefs, history, political aspirations and imaginations. Identify the features that make India a nation. Highlight the features in your school notebook.
- (D) Make a chart of elections and governments in India since 1952. The chart could have the following columns: - year of election, name of the winning party, name of ruling party or parties, name of the Prime – Ministers.

## PHYSICAL EDUCATION: (In Practical File)

Practical -1: Write the Fitness Test Administration (Sai Khelo India Test).

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

Practical-3: Draw the Labeled diagram of cricket play field, mention its history, any five equipment, any five rules, five terminology & five skills.

## COMPUTER SCIENCE:

### COMPUTER SCIENCE RECOMMENDED PRACTICAL LIST FOR CLASS XII

1. Write a python program to search an element in a list and display the frequency of element present in list and their location using Linear search by using user defined function. [List and search element should be entered by user]
2. Write a python program to search an element in a list and display the frequency of element present in list and their location using binary search by using user defined function. [List and search element should be entered by user]
3. Write a python program to pass list to a function and double the odd values and half even values of a list and display list element after changing.
4. Write a Python program input n numbers in tuple and pass it to function to count how many even and odd numbers are entered.
5. Write a Python program to function with key and value, and update value at that key in dictionary entered by user.
6. Write a Python program to pass a string to a function and count how many vowels present in the string.
7. Write a python program to implement python mathematical functions.
8. Write a python program to implement python string functions.
9. Write a python program to read and display file content line by line with each word separated by #.
10. Write a python program to remove all the lines that contain the character 'a' in a file and write it to another file.
11. Write a python program to read characters from keyboard one by one, all lower case letters gets stored inside a file "LOWER", all uppercase letters gets stored inside a file "UPPER", and all other characters get stored inside "OTHERS"

12. Write a python program to create a binary file with name and roll number. Search for a given roll number and display name, if not found display appropriate message.
13. Write a python program to create a binary file with roll number, name and marks, input a roll number and update the marks.
14. Write a python program to create a CSV file with empid, name and mobile no. and search empid, update the record and display the records.
15. (i)Write a Python program to create Lpush( ) and Lpop( ) function to do push and pop operation on a stack using a list e.g. take a student information and push and pop the details.(ii)stack using flight details(iii)stack using bank details
17. Create a student table and insert data. Implement the following SQL commands on the student table: ALTER table to add new attributes / modify data type / drop attribute, UPDATE table to modify data ORDER By to display data in ascending / descending order DELETE to remove tuple(s) GROUP BY and find the min, max, sum, count and average(ii) bank table (iii) flight table(iv) hospital table
18. Integrate SQL with Python by importing the MySQL module record of employee and display the record.
19. Integrate SQL with Python by importing the MySQL module to search an employee using empno and if present in table display the record, if not display appropriate method.
20. Integrate SQL with Python by importing the MySQL module to search a student using rollno, update the record.
21. Integrate SQL with Python by importing the MySQL module to search a student using rollno, delete the record.
22. Take a sample of ten phishing e-mails (or any text file) and find most commonly occurring word(s)

**NOTE:- Kindly make one copy one side blank and one side line. Paste output on left hand side of each question in copy.**

## **INFORMATICS PRACTICES:**

### **PRACTICAL FILE**

**(Write the given programs on an interleaved file and attach the output of each question on the left hand side page.)**

1. Create a panda's series from a dictionary of values and a ndarray.
2. Given a Series, print all the elements that are above the 75th percentile.
3. Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category.
4. Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5. Filter out rows based on different criteria such as duplicate rows.
6. Importing and exporting data between pandas and CSV file
7. Prepare the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.
8. For the Data frames created above, analyze, and plot appropriate charts with title and legend.
9. Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.
10. Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
11. Insert the details of a new student in the above table.
12. Delete the details of a student in the above table.
13. Use the select command to get the details of the students with marks more than 80.
14. Find the min, max, sum, and average of the marks in a student marks table. 15. Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.
16. Write a SQL query to order the (student ID, marks) table in descending order of the marks.

## **ENTREPRENEURSHIP:**

Students are required to submit the Data Analysis and interpretation on the topics already assigned for the following Projects:

- I. Project One: Market Survey
- II. Project Two: Business Plan

NOTE: The project work had already been discussed in the class moreover the detailed guidelines and topic allotment list are uploaded on Entab as well as on the class Whatsapp Group.

## **DANCE:**

Prepare a project file on :

- 1) A brief History of Indian Dance.
- 2) Classical Dance and Folk Dance
- 3) Mahari, Devadasi and Goti pua
- 4) Tandava and Lasya
- 5) Natya Dharmi and Lok Dharmi
- 6) History in Odissi Dance
- 7) Life History of Gurus
  - Guru Pankaj Charan Das
  - Guru Kelucharan Mahapatra
  - Guru Deba PrasadDas

## **PAINTING:**

During the summer break, you will have the opportunity to work on your artistic skills!

\*Your holiday homework for art is as follows:

\*Still Life Drawings: Prepare two colourful still life drawings in your art file. You can use any objects around you, such as fruits, flowers, or household items.

\*Nature Drawings: Create two drawings inspired by nature. These can include landscapes, seascapes, or any natural scenes you find interesting.

\*Compositions: Design and complete two compositions in your art file.

\*Make sure to express your creativity and take your time to work on these pieces. You can use any medium you prefer (e.g., pencils, paints, pastels) for your drawings and compositions.

\*Have a wonderful holiday, and we look forward to seeing your artwork when we return!

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