



DSB INTERNATIONAL PUBLIC SCHOOL

Holiday Homework

Class XII — Summer Assignment Guide

Welcome! This packet brings together all holiday assignments across subjects – from Applied Mathematics and Computer Science to Economics, Physical Education, and Yoga. Each section outlines your task clearly so you can plan your summer wisely, work at your own pace, and submit polished, well-structured work when school resumes.

CLASS XII

MULTI-SUBJECT

SUMMER 2026

D.S.B.I.P.S

Applied Mathematics – Project Topics at a Glance



Category A: Pure Theory & Logic

- Cryptography & RSA Encryption using prime numbers
- Number Theory: primes and advanced divisibility
- Set Theory: cardinality and orders of infinity
- Number Systems: Natural, Rational & Real comparisons
- Venn Diagrams for real-world logic problems
- Mathematical Logic: truth tables and statement validity



Category B: Finance & Business Math

- Financial Logarithms: interest, present/future value
- Inventory Management: Kirana shop sales data
- Stock Markets: tracking price movements
- Actuarial Science: risk assessment in insurance
- Market Volatility: predicting stock market crashes



Category C: Data & Statistics

- Linguistic Demographics: Census of India language data
- Consumer Behavior: monthly spending surveys
- Sports Analytics: career graphs and peak year analysis
- Psephology: mathematics of election prediction
- Vital Statistics: infant mortality rate analysis



Category D: Environment & Nature

- Fibonacci Sequence in flowers, shells, and galaxies
- Meteorological Study: 30-day temperature/humidity data
- Agricultural Math: rainfall and crop yield correlations
- Rainfall Prediction using 10-15 years of Delhi data
- Monsoon Modeling from historical climate data

Applied Mathematics Project (Class XII)

This project bridges abstract mathematical concepts with real-world applications. Select **one topic** from the list below, and present your work in a neatly bound Project File following the structure outlined here.

Required File Structure

1. Title Page (name, class, roll number)
2. Certificate & Acknowledgement
3. Index
4. Introduction
5. Data Collection / Methodology
6. Analysis (graphs, tables, calculations)
7. Conclusion & Practical Implications
8. Bibliography

Topic Categories

A

Pure Theory & Logic

B

Finance & Business Math

C

Data & Statistics

D

Environment & Nature

Choose **any one** topic from any category. Use labeled diagrams and ensure all statistical data is accurate. Survey-based topics must include a blank copy of your questionnaire in the appendix.



Business Studies Project (Class XII)

Choose one topic and prepare a detailed project file

PROJECT A: MARKETING MANAGEMENT

- Why selected this product/service
- 5 competitive brands in market
- Permissions and licenses required
- Competitors' USP
- Product range details
- Product name
- Features list
- Product label design
- Logo design
- Tag line
- Competitor pricing (selling to consumer, retailer, wholesaler)
- Profit margins (manufacturer, wholesaler, retailer percentages)
- Packaging details
- Distribution channel selection with reasons
- Warehousing decisions with reasons
- Your selling price (consumer, retailer, wholesaler)
- 5 promotion methods
- Schemes for wholesaler, retailer, consumer
- Your USP
- Transport means and reasons
- Social message for label
- Cost-effective techniques for product
- Cost-effective techniques for promotion

PROJECT B: BUSINESS ENVIRONMENT

- Packaging changes and economic impact: crates, milk packaging evolution, furniture materials, cardboard origin, paper bag evolution, reusable packaging, pyramid packaging
- Beverage industry evolution: Coca-Cola/Fanta → Thums Up/Campa Cola → Pepsi/Coke; reasons, market share, local brands, brand ratings
- Women's role changes: joint vs nuclear families, appliance trends, living standards
- Import/export pattern changes
- Interest rate trends and savings effects
- Child labour laws and implementation
- Anti-plastic campaign and enforcement
- Mining/industrial laws and regulations
- Social factors affecting product acceptance
- Goods and services evolution: appliances, childcare, ready-to-eat food
- Man-machine ratio and cost structure changes
- Technology's effect on employee behavior

PROJECT C: STOCK EXCHANGE

- Graph share prices of different companies on different dates
- Analyze share value changes due to seasons, festivals, disasters
- Study political environment and policy impacts on share values
- Identify top 10 companies from 25 selected based on market value
- Conclusion identifying causes of price fluctuations

PROJECT D: PRINCIPLES OF MANAGEMENT

Visit one of: departmental store, industrial unit, fast food outlet, or teacher-approved organization.

Observe application of Fayol's 13 principles:

1. Division of work
2. Unity of command
3. Unity of direction
4. Scalar chain
5. Esprit de corps
6. Fair remuneration
7. Order
8. Equity
9. Discipline
10. Subordination of individual interest
11. Initiative
12. Centralization/decentralization
13. Stability of tenure

OR observe F.W. Taylor's scientific management techniques:

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

Submission Requirements (All Projects)

- Length: 25-30 pages (handwritten)
- Format: Neat folder (no spiral binding)
- Structure: Cover page → Contents → Acknowledgements/Preface → Introduction → Topic with headings → Planning/Activities → Observations/Findings → Conclusions → Photographs → Appendix → Teacher signature
- Paper: A4 interleaf sheets
- Handwriting: Neat and legible
- No printed content for writing (handwritten only)

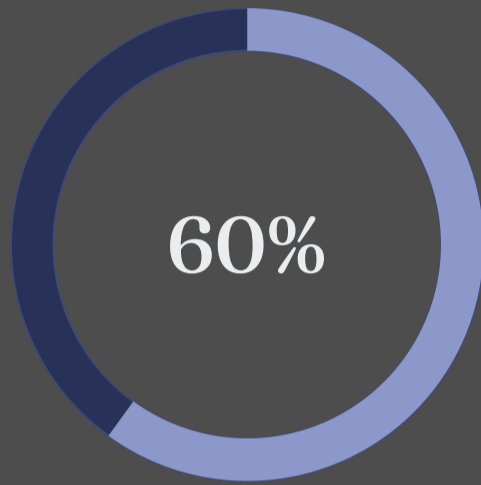
Use a professional layout with clear sections, organized lists, and visual hierarchy to make all requirements easy to scan and understand.

Computer Science (Class XII)

Python Programming + Project Work

Python Programs File

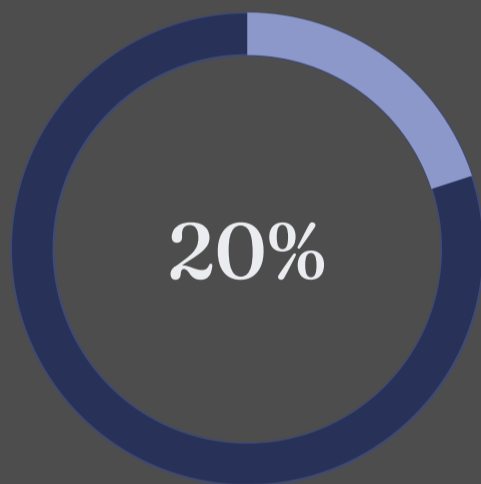
Submit a program file containing **15 Python programs** based on concepts covered across Classes XI and XII. Your programs will be evaluated on:



60%

Logic

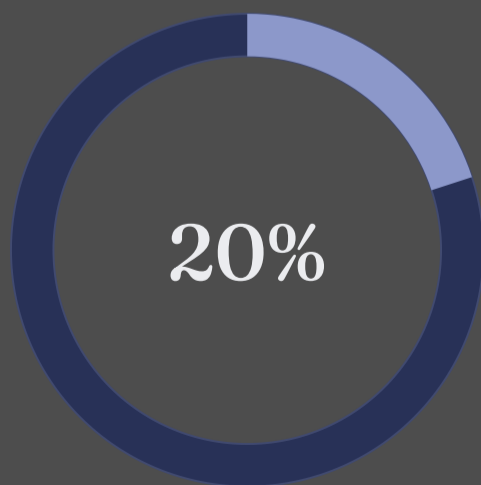
Correctness and efficiency of code logic



20%

Documentation

Comments, docstrings, and clarity



20%

Code Quality

Readability, naming conventions, and structure

Project Work

In addition to programs, complete **one project** that integrates concepts from both Class XI and XII. Your project should demonstrate a real-world use case, include proper input/output handling, and be fully documented.

i Tip: Choose a project idea that genuinely interests you – it shows in the quality of your code and write-up.

□ Both the program file and the project must be submitted together in a single folder or bound file.

Accountancy: The IPO Tracker Project

Shares & Debentures in Action — Class XII

Since Class XII covers the issue of shares and debentures, this assignment connects textbook theory directly to the live stock market. Select a company that launched an **IPO within the last 12 months** and analyze it across three dimensions.



Pro-Rata Allotment Logic

Investigate whether the IPO was oversubscribed. If oversubscribed 5×, calculate the Allotment Ratio for a hypothetical investor applying for a specific number of shares. Show your working clearly.



Securities Premium Analysis

Identify the Issue Price vs. Face Value. Explain – citing **Section 52 of the Companies Act, 2013** – how the company intends to utilize the securities premium amount collected.



Capital Structure & Leverage

Determine if the company also issued Debentures or availed long-term loans. Calculate the **Debt-to-Equity Ratio** and comment on how leveraged the company's capital structure is.

- ✓ Present your findings in a project file with a cover page, analysis sections, and a conclusion. Include screenshots of stock data or news sources as evidence.

Economics Project (Class XII)

Choose any one topic – Project length: 3,500–4,000 words

Each student must independently choose one topic and submit a well-researched project file. Topics span a wide range of economic themes – from policy and banking to agriculture, environment, and global economics.

Industry & Policy

- Micro and Small Scale Industries
- Disinvestment Policy of the Government
- GST Act and its Impact on GDP
- Make in India – The Way Ahead
- Aatmanirbhar Bharat
- Digital India & Cashless Economy

Agriculture & Environment

- Minimum Support Prices
- Bumper Production: Boon or Bane?
- Organic Farming – Back to Nature
- Vertical Farming – An Alternate Way
- Rain Water Harvesting
- Waste Management in India

Finance & Banking

- Role of RBI in Control of Credit
- Monetary Policy Committee & Functions
- Government Budget & its Components
- Stock Price Index & Economic Health
- Currency War – Reasons & Repercussions
- e-Rupee (e-₹)

Global & Social Economics

- Human Development Index
- Sustainable Development Goals (SDGs)
- G-20: Inclusive & Action Oriented
- Sri Lanka's Economic Crisis
- New Education Policy (NEP) 2020
- Comparative Study of Economies (max. 3)

Physical Education (Class XI)

Holiday Homework – Two Topics to Complete

Topic 1: Game Study (Class Notebook)

Choose **any one sport/game** and cover the following in your class notebook:

1. Draw a **labeled diagram** of the playing field/court
2. Introduction and History of the game
3. Rules and Regulations
4. Important Skills and Technology used
5. Names of important tournaments, trophies, and famous personalities – **five each**, national and international

Topic 2: National Sports Awards of India

These prestigious awards are presented every year on **29 August** (National Sports Day). For each award below, write its history, importance, eligibility criteria, and cash prize. Paste relevant pictures.

 **Major Dhyan Chand Khel Ratna Award**

 **Arjuna Award**

 **Dronacharya Award**

 **Dhyan Chand Award**

 **Rashtriya Khel Protsahan Puruskar**

 **Maulana Abul Kalam Azad Trophy**

Hindi Holiday Homework (Class XII)

आधारित: CBSE पाठ्यक्रम – अभिव्यक्ति और माध्यम | अंतरा भाग 2 | अंतराल भाग 2

भाग 1: अनिवार्य (सभी के लिए)

रचनात्मक आलेख / फीचर लेखन – नीचे दिए गए किसी एक विषय पर 150-200 शब्दों में लिखें:

- (क) कृत्रिम बुद्धिमत्ता (AI): वरदान या अभिशाप
- (ख) बदलती जीवनशैली और युवाओं में बढ़ता तनाव

भाग 2: वैकल्पिक (कोई एक चुनें)

1 विकल्प 1: परियोजना कार्य

अंतरा भाग 2 के किसी एक कवि/लेखक (जैसे जयशंकर प्रसाद, निराला, फणीश्वरनाथ रेणु) पर सचित्र परियोजना फाइल – जीवन परिचय, प्रमुख रचनाएँ, साहित्यिक विशेषताएँ।

2 विकल्प 2: जनसंचार और रिपोर्टिंग

अपने शहर/मोहल्ले की किसी समस्या (जलभराव, यातायात, प्रदूषण) पर पत्रकार की भूमिका में रिपोर्ट तैयार करें। संबंधित तस्वीरें या अखबार की कटिंग भी संलग्न करें।

3 विकल्प 3: साहित्यिक विश्लेषण

अंतराल भाग 2 या अंतरा भाग 2 की किसी कहानी का सार अपने शब्दों में लिखें और वर्तमान समाज में उसकी प्रासंगिकता स्पष्ट करें।

Visual Arts Holiday Homework

Class XII

Theme: Mythological Modern Art

Canvas size: 24x36

Medium: Acrylic colours

Create a modern art interpretation of a mythological subject on canvas using acrylic colours.

Submission guidelines:

Work neatly, maintain composition balance, and ensure your final artwork is original. Add your name, class, and section clearly on the back of the canvas before submission.



English Holiday Homework

Class XII

Book Review Project

(Prepare a Project File with pictures)

Project Structure:

- Cover page
- Acknowledgement
- Introduction of the Book
- About the author
- Main Characters
- Theme and message
- Personal Review
- Conclusion

Read any book of your choice and prepare a detailed project file following the structure above. Include relevant pictures and maintain neat presentation.

Yoga Holiday Homework (Class XI)

Class Yoga Notebook – Detailed Written & Illustrated Entries



Surya Namaskar

Write the **importance** of Surya Namaskar and explain all **12 steps** in sequence with labeled pictures for each pose. Include breathing instructions for each step.



Mudras (Hand Gestures)

Cover all seven mudras: **Prana, Gyan, Surya, Vayu, Shunya, Apan,** and **Prithvi**. For each mudra, write its procedure, importance, and benefits – with pictures.



Balanced Diet & Nutrients

Explain the role of **major and minor nutrients** in a balanced diet – proteins, carbohydrates, fats, vitamins, minerals, and water. Include a sample balanced daily diet chart.



Basic Types of Asanas

Choose and describe **any two types** from: Standing, Sitting, Meditative, Supine, Prone, Balancing, and Relaxation asanas. Include name, steps, and benefits of at least one asana from each chosen type.

✔ All entries must be neatly written in your Yoga Notebook with clear headings, pictures, and your own