DELHI PUBLIC SCHOOL, CHAS BOKARO
(2026-27)

Diwali & Chhath Puja



Class – XII (Science)
Diwali &
Chhath Puja Assignment

English

1. **Answer the following three questions in 40–50 words each. 2x3 = 6**
   a. Based on the events of the story, elaborate on Charley's fascination with the third level and the way he relates to the past? (The Third Level)
   b. Examine the outcome of the Tiger King's actions in the light of the prophecy and comment on his belief about controlling fate. (The Tiger King)
   c. Describe the idea that emerges from the author's portrayal of Antarctica as a warning rather than a destination. (Journey to the End of the Earth)

2. Answer the following two questions, in about 120-150 words. 2x5 = 10

A. How do Keeping Quiet by Pablo Neruda and Going Places by A. R. Barton present different responses to inner conflict, and what do these responses reveal about the impact of silence and imagination on human growth?

B. Indigo and Poets and Pancakes present power operating in very different contexts. Gandhi's actions in Champaran and the ironic portrayal of Gemini Studios bring out ways in which authority is questioned in these texts. Discuss.

3. Answer the following two questions, in about 120-150 words. 2x5 = 10

A. The meeting between Derry and Mr Lamb marks a turning point in Derry's life. Discuss how Mr Lamb's outlook challenges Derry's fear-driven self-image and shapes his understanding of self-worth beyond physical limitations.

B. Dr Sadao's decision to shelter an enemy soldier places him in a moral dilemma. Assess whether this decision can be seen as an act of moral courage in the face of competing national loyalties in The Enemy.

4. Complete the project given during Durga puja holiday. The same will be used for final examination.

5. Write poem or essay on any one of the following in about 1000 words:

a. Empowered women, Sustainable Future.

b. Policy Interventions and Social Reforms in Female Empowerment.

(NOTE: - Q5 is to be done in the separate sheet.)

Maths

1. To sketch the graphs of exponential and logarithmic functions and examine their symmetry about the line $y = x$.
2. To evaluate limits and check continuity of a function at a point.
3. To understand absolute maximum and minimum values using graphs.
4. To verify vector multiplication laws and the angle in a semi-circle property using vectors.
5. To measure and verify the shortest distance between two skew lines.
6. To compute conditional probability using a pair of dice example.

Physics

Q.1 The electric field associated with an electromagnetic wave in a vacuum is given by: E = î 40 cos (kz – 6 × 108t) where E, z, and t are in volt/m, meter, and seconds respectively. Find the value of Wave speed, wavelength and frequency of the wave, amplitude of the magnetic field and also write the expression for the magnetic field of this wave.

Q.2 A parallel plate capacitor, each with plate area A and separation d, is charged to a potential difference V. The battery used to charge it remains connected. A dielectric slab of thickness d and dielectric constant k is now placed between the plates. What change, if any, will take place in: (i) charge on plates? (ii) electric field intensity between the plates? (iii) capacitance of the capacitor? Justify your answer in each case.

Q.3 Show that the displacement current in the dielectric of a parallel-plate capacitor is equal to the conduction current in the connecting leads.

Q.4 A tank is filled with water to a height of 12.5 cm. The apparent depth of a needle lying at the bottom of the tank is measured by a microscope to be 9.4 cm. What is the refractive index of water? If water is replaced by a liquid of refractive index 1.63 up to the same height, by what distance would the microscope have to be moved to focus on the needle again?

Q.5 A point source of light in air is kept at a distance of 12 cm in front of a convex spherical surface of glass of refractive index 1.5 and radius of curvature 30 cm. Find the nature and position of the image formed.

Q.6 The radii of curvature of the two surfaces of a lens are and and the refractive index of the material of the lens is If the lens is concavo-convex, then the focal length of the lens is

Q.7 The lens maker's formula is useful to design lenses of desired focal lengths using surfaces of suitable radii of curvature. The focal length also depends on the refractive index of the material of the lens and the surrounding medium. The refractive index depends on the wavelength of the light used. The power of a lens is related to its focal length. The focal length of a concave lens of R.I is 1.5 is 20 cm in air. It is completely immersed in water of R.I is 4/3 Calculate its focal length in water.

Q.8 A converging and diverging lens of equal focal lengths are placed coaxially in contact. Find the focal length and power of the combination.

Q.9 In a telescope the focal length of the objective and the eye piece are

and 65 cm and 5 cm respectively. What is (1) its magnification power? (2) the tube length?

Q.10 What is the effect on the interference pattern in young double slit experiments when (i) the source slit is moved closer to the plane of the slit, and (ii) the separation between the two slits is increased? Justify your answer.

11.PHYSICS PRACTICAL-Complete Physics practical file as per given instructions in class.

Chemistry

1. Why is it not possible to obtain pure ethanol by fractional distillation? What general name is given to binary mixtures which show deviation from Raoult's law and whose components cannot be separated by fractional distillation. How many types of such mixtures are there?
2. How can you remove the hard calcium carbonate layer of the egg without damaging its semipermeable membrane? Can this egg be inserted into a bottle with a narrow neck without distorting its shape? Explain the process involved.
3. Thermodynamic feasibility of the reaction alone cannot decide the rate of the reaction. Explain with the help of one example.
4. What happens to most probable kinetic energy and the energy of activation with increase in temperature?

5. Why on dilution the m Λ of CH3COOH increases drastically, while that of CH3COONa increases gradually.
6. What advantage do the fuel cells have over primary and secondary batteries?
7. What is the relationship between Gibbs free energy of the cell reaction in a galvanic cell and the emf of the cell? When will the maximum work be obtained from a galvanic cell?
8. What is meant by the chelate effect? Give an example.
9. [Cr(NH3)6] 3+ is paramagnetic while [Ni(CN)4] 2– is diamagnetic. Explain why?
10. Explain the different method of preparation of phenol.

Biology

EXPERIMENTS

1. To identify common human disease-causing organisms:
   a. Ascaris
   b. Plasmodium
   c. Ringworm
2. To study pants and animals (model/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.
   a. Eichhornia crassipes (Water Hyacinth)
   b. Labeo rohita (Rohu)
3. To study adaptations of flowers pollinated by different agencies
   a. Wind (Maize, grasses)
   b. Insect (Hibiscus)
   c. Water (Vallisneria)

Project

1. Prepare a project from any chapter that you have a proper command over within the **Genetics**, **Biotechnology**, or **Ecology and Environment**."
   Note:- prepare project in hardcover practical file, a ring binder, or a lace-tied folder**.**

Informatics Practices

Questions for Practical File: -

1. Create a data frame for examination result and display row labels, column labels
data types of each column and the dimensions. Filter out rows based on different criteria such as duplicate rows.

2. Importing and exporting data between pandas and CSV file.

3. Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.

4. For the Data frames created above, analyze, and plot appropriate charts with title and legend.

5. 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.

Questions for Project: -

Below images has been given as sample. Student can choose any one of the posters and make it.







Physical Education

1.Explain circuit training in details.

2.What are the causes of aggression in sports?

Graphics

1. Complete your Graphics file with all Layout drawn and painted on the theme already given to you. Topic - Nature, Sports & Games, Yoga, fantasy world, Famous monuments & statues, Family Affairs, Festivals. (Total 12 Layouts must be there in your file.)
   (Total 12 Layouts, make sure that minimum 8 to 10 fresh sheets are there in you file for Prints to be done after school reopen, File must be properly covered and submitted on school reopen day)

2. Solve (Only Short & Long Questions) CBSE sample question 2026-27 of Graphics and Painting, write in a copy and submit.

Painting

1. Complete your Painting file with all Topics already given to you.
   Topic – i) Still life-4
   ii) Nature study – 3
   iii) Water color Composition- 4
   iv) Folk art- 4 (Warli-1, Soharai Art - 1, Madhubani Art - 1, Gond Art- 1)

   (Total 15, File must be properly covered and submitted on school reopen day)
2. Solve (Only Short & Long Questions) CBSE sample question 2026-27 of Graphics and Painting, write in a copy and submit.

HVM

- **Define These Terms**

1. Alankar With Five Example
2. Murchhna and Its Type
3. Write Taal Jhaptaal, Rupak, Tilwada Thah Dugun Tigun and Chaugun
4. Write Raag Bhairav and Raag Malkauns Chhota Khayal & Bada Khayal and Its Importance
5. Write The Tuning Process of Tanpura
6. Describe Sangeet Parijat and Sangeet Ratnakar

DELHI PUBLIC SCHOOL, CHAS BOKARO
(2026-27)

Diwali & Chhath Puja



Class – XII (Commerce)
Diwali &
Chhath Puja Assignment

English

1. **Answer the following three questions in 40–50 words each. 2x3= 6**
   a. Based on the events of the story, elaborate on Charley's fascination with the third level and the way he relates to the past? (The Third Level)
   b. Examine the outcome of the Tiger King's actions in the light of the prophecy and comment on his belief about controlling fate. (The Tiger King)
   c. Describe the idea that emerges from the author's portrayal of Antarctica as a warning rather than a destination. (Journey to the End of the Earth)

2. Answer the following two questions, in about 120-150 words. 2x5 = 10

A. How do Keeping Quiet by Pablo Neruda and Going Places by A. R. Barton present different responses to inner conflict, and what do these responses reveal about the impact of silence and imagination on human growth?

B. Indigo and Poets and Pancakes present power operating in very different contexts. Gandhi's actions in Champaran and the ironic portrayal of Gemini Studios bring out ways in which authority is questioned in these texts. Discuss.

3. Answer the following two questions, in about 120-150 words. 2x5 = 10

A. The meeting between Derry and Mr Lamb marks a turning point in Derry's life. Discuss how Mr Lamb's outlook challenges Derry's fear-driven self-image and shapes his understanding of self-worth beyond physical limitations.

B. Dr Sadao's decision to shelter an enemy soldier places him in a moral dilemma. Assess whether this decision can be seen as an act of moral courage in the face of competing national loyalties in The Enemy.

4. Complete the project given during Durga puja holiday. The same will be used for final examination.

5. Write a poem or an essay on any one of the following in about 1000 words:

a. Empowered women, Sustainable Future.

b. Policy Interventions and Social Reforms in Female Empowerment.

(NOTE: - Q5 is to be done in the separate sheet.)

Physical Education

1.Write any three SAI fitness test.

2.Explain in details about the types of aggression in sports.

Accountancy

Section A: Conceptual & Objective Questions (1 Mark Each)

Q1. What is meant by **Minimum Subscription** under Section 39(1) of the Companies Act, 2013? What is the SEBI limit for minimum subscription in public issues?

Q2. State the purposes for which the **Securities Premium Account** can be utilized as per Section 52(2) of the Companies Act, 2013. (Mention any three purposes).

Q3. A company forfeited 400 shares of ₹10 each issued at a premium of ₹2 per share for non-payment of first and final call of ₹3 per share. If the premium was payable on allotment and was received by the company, what amount will be credited to the **Share Forfeiture Account**?

Q4. What is the maximum permitted rate of discount on the reissue of forfeited shares?

Q5. Distinguish between **Calls-in-Arrears** and **Calls-in-Advance** on the basis of:

(a) Interest charged/paid as per Table F

(b) Presentation in the Balance Sheet

Q6. Pass journal entries for the forfeiture and reissue of shares in the following independent cases:

- **Case A:** Vikram Ltd. forfeited 300 shares of ₹10 each (₹8 called up) issued at a premium of ₹2 per share to Rohan for non-payment of allotment money of ₹5 per share (including premium). Out of these, 200 shares were reissued to Karan as ₹8 paid up for ₹7 per share.
- **Case B:** Priya Ltd. forfeited 500 shares of ₹10 each fully called up, on which application money of ₹3 and allotment money of ₹4 (including ₹2 premium) have been received. The shareholder failed to pay first call of ₹3 and final call of ₹2. All these shares were reissued at ₹9 per share as fully paid up.

Q7. Apeksha Engineering Ltd. invited applications for 1,00,000 equity shares of ₹10 each at a premium of ₹2 per share, payable as follows:

- On Application: ₹3 per share
- On Allotment: ₹5 per share (including ₹2 premium)
- On First Call: ₹2 per share
- On Second & Final Call: ₹2 per share

Applications were received for 1,60,000 shares. The Board resolved to make allotment as follows:

- **Category I:** Applicants for 40,000 shares were allotted 40,000 shares.
- **Category II:** Applicants for 1,00,000 shares were allotted 60,000 shares on a pro-rata basis.
- **Category III:** Applicants for 20,000 shares were rejected and their application money was refunded.

Excess money received on application was utilized towards amount due on allotment only.

1. **Rakesh**, who belonged to **Category II** and was allotted 600 shares, failed to pay the allotment money. On his failure to pay the first call, his shares were forfeited.
2. **Sunil**, who belonged to **Category I** and held 400 shares, failed to pay the first and second call. His shares were forfeited after the second call was made.
3. Of the forfeited shares, 800 shares were reissued to Vijay as fully paid up at ₹8 per share (including all shares of Rakesh).

Pass necessary journal entries in the books of Apeksha Engineering Ltd. to record the above transactions.

Business Studies

SECTION A: OBJECTIVE TYPE QUESTIONS (1 Mark Each)

1. Unicon Agro Chemicals Ltd. needs funds to meet its floatation costs for an upcoming public issue of equity shares. Which money market instrument should the company issue for this purpose?
    - (a) Commercial Bill
    - (b) Commercial Paper
    - (c) Treasury Bill
    - (d) Call Money
2. A process through which physical securities are converted into an electronic holding is known as:
    - (a) Rematerialisation
    - (b) Securitisation
    - (c) Dematerialisation
    - (d) Factoring
3. **Assertion (A):** The money market deals in monetary assets whose period of maturity is up to one year.

Reason (R): Instruments of the money market are highly liquid, safe, and bear low credit risk.

    - (a) Both (A) and (R) are true and (R) is the correct explanation of (A).
    - (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
    - (c) (A) is true, but (R) is false.
    - (d) (A) is false, but (R) is true.
4. When existing shareholders are offered the pre-emptive right to subscribe to new shares in proportion to their existing shareholding, the method of floatation is known as:
    - (a) Private Placement
    - (b) Offer for Sale
    - (c) Rights Issue
    - (d) e-IPOs
5. Which of the following is **not** a protective function of the Securities and Exchange Board of India (SEBI)?
    - (a) Prohibition of fraudulent and unfair trade practices
    - (b) Controlling insider trading
    - (c) Undertaking steps for investor education
    - (d) Conducting audit and inspection of stock exchanges
6. On behalf of the Central Government, Treasury Bills are auctioned and issued in India by:
    - (a) Securities and Exchange Board of India (SEBI)
    - (b) Reserve Bank of India (RBI)

- (c) State Bank of India (SBI)
- (d) Ministry of Corporate Affairs

SECTION B: Case Based Questions

7.ABC Ltd. is a blue-chip company looking to raise short-term finance of ₹50 crore to bridge the gap between its seasonal raw material procurement and collection of receivables.

(a) Identify the suitable money market instrument.

(b) State who issues this instrument and what its usual maturity period is.

(c) Name another money market instrument that can be issued by commercial banks during tight liquidity conditions.

8. **Case Study:**

Vanya inherited 500 physical share certificates of an FMCG giant purchased by her grandfather in 1995. She wants to sell these shares on the National Stock Exchange (NSE) to finance her postgraduate degree. However, her broker informed her that physical share certificates cannot be traded directly on modern exchange platforms.

(a) What immediate operational step must Vanya take before selling these shares? Name the two national-level institutions in India that provide this repository service.

(b) State any two advantages of electronic holding over physical share certificates.

9. **Case Study:**

Rohan Sharma, a junior analyst at a brokerage firm, received leaked non-public information from an executive regarding a pharmaceutical firm's pending USFDA clearance. Rohan traded heavily in the stock ahead of the public announcement, yielding ₹85 lakh in illicit personal gains. When irregular trading volume spiked, SEBI launched an enquiry, froze his demat account, and levied heavy financial penalties.

(a) Identify and define the illegal practice Rohan engaged in.

(b) Classify SEBI's regulatory action into its proper functional category.

(c) State and explain two functions under each of the three functional categories of SEBI:

- Regulatory Functions
- Development Functions
- Protective Functions

Economics

All students of Class XII are hereby informed that they have to prepare and submit their Economics Annual Project as per their roll numbers. The topics are allotted as follows:

- **Roll Numbers 1:** Government Budget
- **Roll Numbers 2:** HDI
- **Roll Numbers 3:** GST and
- **Roll no- 4- Government Budget** and so on……

General Instructions:

1. The project should be neat, well-organised, and properly presented.
2. It should include a cover page, index, acknowledgement, introduction, main content, conclusion, and bibliography.
3. Students may use relevant pictures, charts, and examples to make their projects informative and attractive.
4. The project must be completed individually and submitted within the stipulated deadline.

All students are instructed to complete their projects sincerely and submit them on time.

Mathematics

1. To sketch the graphs of exponential and logarithmic functions and examine their symmetry about the line y = x.
2. To evaluate limits and check continuity of a function at a point.
3. To understand absolute maximum and minimum values using graphs.
4. To verify vector multiplication laws and the angle in a semi-circle property using vectors.
5. To measure and verify the shortest distance between two skew lines.
6. To compute conditional probability using a pair of dice example.

Graphics

1. Complete your Graphics file with all Layout drawn and painted on the theme already given to you.
Topic - Nature, Sports & Games, Yoga, fantasy world, Famous monuments & statues, Family Affairs, Festivals. (Total 12 Layouts must be there in your file.)
(Total 12 Layouts, make sure that minimum 8 to 10 fresh sheets are there in you file for Prints to be done after school reopen, File must be properly covered and submitted on school reopen day)

2. Solve (Only Short & Long Questions) CBSE sample question 2026-27 of Graphics and Painting, write in a copy and submit.

Painting

1. Complete your Painting file with all Topics already given to you.
Topic – i) Still life-4
ii) Nature study – 3
iii) Water color Composition- 4
iv) Folk art- 4 (Warli-1, Soharai Art - 1, Madhubani Art - 1, Gond Art- 1)

(Total 15, File must be properly covered and submitted on school reopen day)

2. Solve (Only Short & Long Questions) CBSE sample question 2026-27 of Graphics and Painting, write in a copy and submit.

Informatics Practices

Questions for Practical File: -

1. Create a data frame for examination result and display row labels, column labels
data types of each column and the dimensions. Filter out rows based on different criteria such as duplicate rows.
2. Importing and exporting data between pandas and CSV file.
3. Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.
4. For the Data frames created above, analyze, and plot appropriate charts with title and legend.
5. 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.

Questions for Project: -

Below images has been given as sample. Student can choose any one of the posters and make it.







HVM

- Define These Terms

1. Alankar With Five Example
2. Murchhna and Its Type
3. Write Taal Jhaptaal, Rupak, Tilwada Thah Dugun Tigun and Chaugun
4. Write Raag Bhairav and Raag Malkauns Chhota Khayal & Bada Khayal and Its Importance
5. Write The Tuning Process of Tanpura
6. Describe Sangeet Parijat and Sangeet Ratnakar