

**THE ASIAN SCHOOL, DEHRADUN**  
**HOMEWORK FOR WINTER VACATION 2024 CLASS XI**

**ENGLISH : General Instructions –**

- The assignment must be hand written.
- All questions are to be attempted in holiday homework notebook. (Do not copy the passages for comprehension and note making in the notebook).

**Assignment is to be submitted positively to the teacher on the first day the school reopens after the Winter break.**

**1. Attempt the following comprehension passage.**

1. Most of us, however, take life for granted. We know that one day we must die, but usually we picture that day as far in the future. When we are in buoyant health, death is all but unimaginable. We seldom think of it. The days stretch out in an endless vista. So we go about our petty tasks, hardly aware of our listless attitude towards life.
2. The same lethargy, I am afraid, characterizes the use of all our faculties and senses. Only the deaf appreciate hearing, only the blind realize the manifold blessings that lie in sight. Particularly does this observation apply to those who have lost sight and hearing in adult life. But those who have never suffered impairment of sight or hearing seldom make in all sights and sounds hazily, without concentration and with little appreciation. It is the same old story of not being grateful for what we have until we lose it, of not being conscious of health until we are ill.
3. I have often thought it would be a blessing if each human being were stricken blind and deaf for a few days at some time during his early adult life. Darkness would make him more appreciative of sight, silence would teach him the joys of sound.
4. Now and then I have tested my seeing friends to discover what they see. Recently I was visited by a very good friend who had just returned from a long walk in the woods, and I asked her what she had observed. "Nothing in particular" she replied, I might have been incredulous had I not been accustomed to such responses, for long ago I became convinced that the seeing see little.
5. How was it possible, I asked myself; to walk, for an hour through the woods and see nothing worthy of note? I who cannot see find hundreds of things to interest me through mere touch. I feel the delicate symmetry of a leaf. I pass my hands lovingly about the smooth skin of a silver birch, or the rough shaggy bark of a pine. In spring I touch the branches of trees hopefully in search of a bud, the first sign of awakening Nature after her winter's sleep. I feel the delightful velvety texture of a flower and discover its remarkable convolutions, and something of the miracle of Nature is revealed to me. Occasionally, if I am fortunate I place my hand gently on a small tree and feel the happy quiver of a bird in full song. I am delighted to have the cool waters of a brook rush through my open fingers. To me a lush carpet of pine needles or spongy grass is more welcome than the most luxurious Persian rug. To me the pageant of seasons is a thrilling and unending drama, the action of which streams through my finger tips.

**On the basis of your understanding of the passage, answer any TEN out of the eleven given below :**

- (i) Death is unimaginable when we are .....  
a) young      b) old      c) working hard      d) in buoyant health
- (ii) Our eyes and ears take in all sights and sounds.....  
a) quickly      b) slowly      c) hazily      d) abruptly
- (iii) The expression 'seeing see little' means.....  
a) those who can see have not a lot to see  
b) those blessed with eyesight have nothing good to see  
c) the people who have eyes do not bother to see much

- d) with their eyes open, they see every little thing
- iv) The author can enjoy the beauties of nature with her.....
- a) touch                      b) eyes                      c) nose                      d) ear

- v) The word 'listless' in para 1 means.....
- a) routine      b) dull                      c) scheduled      d) interesting

- vi) An average man's attitude towards his environment is :
- a) positive      b) apathetic                      c) curious      d) negative

- vii) Choose the option that correctly reveals the personality traits of the narrator.
1. sensitive                      2.inhuman                      3. humble                      4. inquisitive
- a) 2,3,4                      b) 1,4,5                      c) 1,5,6                      d) 2,3,5

viii) Based on the extract, choose the correct option with reference to the two statements given below :

Statement 1 : The author is not happy with those who are endowed with the gift of eyesight

Statement 2 : Each other in Nature makes her listless.

- a) Statement 1 is false but Statement 2 is true.
- b) Statement 1 is true but Statement 2 is false.
- c) Both Statement 1 and Statement 2 are true.
- d) Both Statement 1 and Statement 2 are false.
- ix) The narrator wants us to take interest in :
- a) everything in life      b) life and death                      c) God                      d) moral issues

x) If a man is stricken blind for a few days, he will grow more.....

xi) Human beings are lethargic in their use of all their faculties and senses. (True/ False)

## 2. Attempt the following question on note- making.

1. It is surprising that sometimes we don't listen to what people say to us. We hear them, but we don't listen to them. I was curious to know how hearing is different from listening. I had thought both were synonyms, but gradually, I realized there is a big difference between the two words.
2. Hearing is a physical phenomenon. Whenever somebody speaks, the sound waves generated reach you, and you definitely hear whatever is said to you. However, even if you hear something, it doesn't always mean that you actually understand whatever is being said. Paying attention to whatever you hear means you are really listening. Consciously using your mind to understand whatever is being said is listening.
3. Diving deeper, I found that listening is not only hearing with attention, but is much more than that. Listening is hearing with full attention, and applying our mind. Most of the time, we listen to someone, but our minds are full of needless chatter and there doesn't seem to be enough space to accommodate what is being spoken.
4. We come with a lot of prejudices and preconceived notions about the speaker or the subject on which he is talking. We pretend to listen to the speaker, but deep inside, we sit in judgement and are dying to pronounce right or wrong, true or false, yes or no. Sometimes, we even come prepared with a negative mind set of proving the speaker wrong. Even if the speaker says nothing harmful, we are ready to pounce on him with our own version of things.
5. What we should ideally do is listen first with full awareness. Once we do that, communication will be perfect and our interpersonal relationship will become so much better. Listening well doesn't mean one has to say the right thing at the right moment. In fact, sometimes if words are left unspoken, there is a feeling of tension and negativity. Therefore, it is better to speak out your mind, but do so with awareness after listening to the speaker with full concentration.
6. Let's look at this in another way. When you really listen, you imbibe not only what is being spoken, but you also understand what is not spoken as well. Most of the time we don't really listen even to people who really matter to us. That's how misunderstandings grow among families, husbands and wives, brothers and sisters.

a) On the basis of your reading of the above passage make notes on it, using headings and sub-headings. Use recognizable abbreviations wherever necessary (minimum 4) and a format you consider the most appropriate. Also supply an appropriate title to it.

b) Write a summary of the above passage in about 50 words.

**Note:** Refer to the passages in the Practice Papers but write the answers in your holiday HW notebook. You need not copy the comprehension and the note making passage

**3. Draft the following Advertisements.** You may use the given cues:

i). You are the manager of Super Software Solutions Ltd. Draft an advertisement for your company for the post of a Chief Programmer (Solutions) giving details as per your requirement.

*(Use heading - Situation Vacant, Name of employee with address, no. of posts vacant, age limit, minimum qualification, pay scale, perks, mode of applying and whom to apply, deadline, contact)*

ii). Your aunt, emigrating to Canada wants to put up a classified advertisement to dispose off her flat before she leaves. Draft a suitable advertisement putting her flat on sale.

*(Begin with For Sale or Available, mention the type of house, details - no. of rooms, size of floor etc, use adjectives like - airy, well ventilated etc, expected price, contact)*

iii). You have a cat named Katty, is missing since 12 June, 20xx. Draft an advertisement to be published in the 'Missing' column of the local daily.

*(Begin with - Missing, give physical description, name, breed, colour of fur, any distinct feature, missing since when and from where, reward - if any, contact.)*

iv). Your uncle has just established a Tour and Travel Company and needs a classified advertisement to popularize it. Draft an advertisement giving necessary details.

*(Begin with Tours and Travels, name of company, mention tours/ cruises/ sightseeing etc, duration and dates, packages and discounts, Visa requirements - if any, booking period, contact)*

v). While travelling in a bus you found some certificates, a wallet, and some jewellery in a bag. You found no contact details of the owner in the bag. Draft an advertisement to be published in the local newspaper.

*(Begin with - Found, description as name of object, brand, colour, size, condition etc. found when and where, reward if any, keep strategic details undisclosed for authenticity and verification of the claimant, contact)*

**4. Use the correct forms of the words given in brackets to complete the passage given below.**

We often (i) ..... (go) for a morning walk. Yesterday, my younger brother also (ii)..... (accompany) us. He got up early in the morning and (iii) ..... (knock) at my door. I (iv) .....(wake up) with a start and (v) ..... (gets) ready for the walk. While I (vi) ..... (come) out of the room I saw my grandmother coming out of her room. She (vii) ..... (tell) us it was just three o'clock. My brother (viii) ..... (lose) count of time in excitement.

**5. Rearrange the following words into meaningful sentences:**

- 1) the biggest /the /golden /in/ eagle /the /all eagles / and /United States / fastest/ of /is
- 2) altitudes /it can/ to/ of/ can/ 13,000 feet/ / fly
- 3) diving speed /200 miles/ nears /it has /per hour/ a/ that/nears
- 4) this /can /a/ bird / wingspan/with a / is a/ eight feet/reach/ formidable/that
- 5) plains of/ from the/ Mexico / tundra of/to the /Alaska, golden eagles / in high nests/ homes /make / their

6. In each of the following, sentence A is complete, but sentence B is not. Complete sentence B, making it as similar in meaning to sentence A.

1. A. We only know the truth when we read the report.  
B. Not until.....
2. A. They explained to her clearly, nevertheless, she refused to listen.  
B. In spite of.....
3. A. It would be a good Idea if we went through the exercise again.  
B. We had.....
4. A. She complained that her leg was paining.  
B. She complained of.....
5. A. He is said to have been an eminent scientist.  
B. People.....
6. A. She got back her property ten years later.  
B. Her property.....
7. A. I will take the job, so long as the salary is good.  
B. I will not take the job .....
8. A. We will go out for a meal if the cook is absent.  
B. Should.....
9. A. I will not sign the contract under any circumstances.  
B. Under no circumstances.....
10. A. They had no news of his whereabouts until last Friday.  
B. It was not.....

7. Answer the following questions briefly.

1. Why did Jonathan called the narrator the best daddy and captain in the world? ("WE ARE NOT AFRAID TO DIE... IF WE CAN ALL BE TOGETHER")
2. Who was King Tut and why has there been such widespread speculation about him in modern times? (DISCOVERING TUT: THE SAGA CONTINUES)
3. What did Rajendra Deshpande mean when he says, you neither travelled to the past nor the future. You were in the present experiencing a different world. (THE ADVENTURE)
4. "I was in a room I knew and did not know," says the narrator in the story 'The Address'. What prompted her to make this observation? ('THE ADDRESS')
5. Which issues are raised by this play and how are they resolved? Answer with reference to Mother's Day. (MOTHER'S DAY)
6. How does the story 'The Summer of the Beautiful White Horse' convey the message of honesty and integrity and how do the characters maintain it irrespective of their desire to keep the horse with themselves?
7. The author and his grandmother were intimate friends. How ? ( THE PORTRAIT OF A LADY )
8. The poet's mother laughed at the snapshot. What did this laugh indicate ? ( PHOTOGRAPH)
9. Explain the line, 'And the Laburnum subsides to empty '. ( THE LABURNUM TOP )
10. Why are the last two lines put within brackets? ( THE VOICE OF RAIN )
11. According to Markus Natten, when does the child become an adult? ( CHILDHOOD )

8. Speech Writing :

- \* The chapter "The Portrait of a Lady' displays the sad reality of old age. Old people face loneliness and seclusion. It gets your thinking about the pain of a old age. Write a speech about "Pain of Old Age".

9. Debate Writing :

- \* 'Internet cannot replace a classroom teacher.' Write a debate in 120- 150 words either for or against the motion.
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## HINDI:

- 1—असत्य पर सत्य की विजय – नमक के दारोगा कहानी के आधार पर चित्रात्मक परियोजना के माध्यम से लिखिए।
- 2—सिद्ध कीजिए कि कबीरदास वर्तमान काल के क्रांतिकारी कवि हैं। आकर्षक चित्र के माध्यम से परियोजना में लिखिए।
- 3—परीक्षा से एक दिन पहले विषय पर रचनात्मक लेखन परियोजना में लिखिए।
- 4—पत्रकारिता के विविध आयाम पर आकर्षक परियोजना

## निर्देश—

- परियोजना कार्य
- प्रथम पृष्ठ—विद्यार्थी का नाम
- द्वितीया पृष्ठ—आभार ज्ञापन
- तृतीया पृष्ठ—प्रमाण पत्र
- चतुर्थ पृष्ठ—अनुकमणिका
- पंचम पृष्ठ—प्रस्तावना
- षष्ठम पृष्ठ—सम्पूर्ण चित्राकर्षक परियोजना
- अन्तिम पृष्ठ—संदर्भग्रन्थ
- नोट—सम्पूर्ण कार्य आन्तरिक मूल्यांकन के अन्तर्गत जाँचा जायेगा।

## STANDARD MATHEMATICS :

### (A) WORKSHEETS (TO BE SOLVED IN THE MATHEMATICS-NOTEBOOKS)

#### STRAIGHT LINES

- Q1 If the slopes of the two lines are  $\frac{1}{2}$  and 3, then find the angle between the two lines.
- Q2 Find the angle between the x-axis and the line joining the points (3, -1) and (4, -2).
- Q3 Find the equations to the line parallel to the axes and passing through the point (-3, 5).
- Q4 Find the equation of the line which is passing through the point (-2, -4) and perpendicular to the line  $3x - y + 5 = 0$ .
- Q5 Find the equation of the line which passes through the point (3,4) and the sum of whose intercepts on the axes is 14.
- Q6 Find the distance of the point (-1,1) from the line  $12(x+6) = 5(y-2)$
- Q7 Find the intercepts cut off by the line  $2X - Y + 16 = 0$
- Q8 If the image of the point (2, 1) in a line is (4, 3) then find the equation of line.
- Q9 Find the area of the triangle formed by the lines  $y - x = 0$ ,  $x + y = 0$  and  $x - c = 0$ .
- Q10 Determine the equation of line through a point (-4, -3) and parallel to x-axis.

#### SEQUENCE AND SERIES

- Q 1: In a GP, the second term is 12, and the sixth term is 192. Find the 11<sup>th</sup> term.
- Q 2: If  $S_n$  denotes the sum of the first n terms of an AP and  $[S_{3n} - S_{n-1}] / [S_{2n} - S_{2n-1}] = 31$ , then find the value of n.
- Q 3: **The sum of some terms of a GP is 315. Its first term is 5 and the common ratio is 2. Find the number of its terms and the last term.**
- Q 4: Find the largest term common to the sequences 1, 11, 21, 31,..... to 100 terms and 31, 36, 41, 46.....to 100 terms.
- Q 5: Find the sum of integers from 1 to 100 divisible by 2 or 5.
- Q 6: **Find the common ratio of a GP whose sum of infinite terms is 8 and its second term is 2.**

- Q 7: If  $x, 2y, 3z$  are in AP, where the distinct numbers  $x, y, z$  are in GP, then find the common ratio of the GP.
- Q 8: Consider the ten numbers  $ar, ar^2, ar^3, \dots, ar^{10}$ . If their sum is 18 and the sum of the reciprocals is 6, then find the product of these ten numbers .
- Q 9. Insert two geometric means between 9 and 243.
- Q 10 If  $p, q, r$  are in AP then prove that  $pth, qth$  and  $rth$  term of any GP are in GP.

### PERMUTATIONS AND COMBINATIONS

- Q1. Find the 3-digit numbers that can be formed from the given digits: 1, 2, 3, 4 and 5 assuming that
- digits can be repeated.
  - digits are not allowed to be repeated.
- Q2. A coin is tossed 6 times, and the outcomes are noted. How many possible outcomes can be there?
- Q3: How many words, with or without meaning, can be formed using all the letters of the word EQUATION, using each letter Exactly once?
- Q4: How many words can be formed each of 2 vowels and 3 consonants from the letters of the given word – DAUGHTER?
- Q5: It is needed to seat 5 boys and 4 girls in a row so that the girl gets the even places. How many are such arrangements possible?
- Q6: Find the number of 6 digit numbers that can be formed by using the digits 0, 1, 3, 5, 7, and 9. These digits shall be divisible by 10, and no digit shall be repeated?
- Q7. Calculate how many numbers are there between 99 and 1000 having at least one of their digits 7?
- Q8. A boy has 3 library tickets and 8 books of his interest in the library. Of these 8, he does not want to borrow Mathematics Part II, unless Mathematics Part I is also borrowed. In how many ways can he choose the three books to be borrowed?
- Q9. Determine the number of permutations of the letters of the word ALLAHABAD.
- Q10. How many automobile license plates can be made, if each plate contains two different letters followed by three different digits?

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(B) THE STUDENTS HAVE TO PREPARE MATHEMATICS ACTIVITY FILE FOR THE, FOR THE INTERNAL ASSESSMENTS IN MATHEMATICS, AS PER THE GUIDELINES ISSUED BY CBSE.

#### GUIDELINES AND INSTRUCTIONS FOR PREPARING THE ACTIVITY FILE:

- The activities should be done in a loose ruled project sheets and fixed in a stick file.
- It should contain the following in the order
  - INDEX
  - ACKNOWLEDGEMENT
  - The figures should be drawn with pencil.
  - The headings should be written in black in and the content in blue ink.
  - Use the graph sheets wherever required.
  - Color pencil and pen can be used.
  - Mention NAME OF THE SCHOOL, your NAME, CLASS AND SECTION, SUBJECT and SESSION in the activity file.
  - Prepare a neat and clean creative activity file.

NOTE: THE PDF OF THE ACTIVITIES TO BE COMPLETED WILL BE SHARED IN THE CLASS WHATSAPP GROUPS BY THE SUBJECT TEACHER.

THE HOLIDAY HOMEWORK HAS TO BE SUBMITTED AFTER THE WINTER VACATIONS.

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**APPLIED MATHEMATICS :**

**THE HOLIDAY HW HAS TWO PARTS PART-1 AND PART-2**

**(PART-1) THE STUDENTS HAVE TO PREPARE A PROJECT FOR THE INTERNAL ASSESSMENTS IN APPLIED MATHEMATICS, AS PER THE GUIDELINES ISSUED BY CBSE.**

**GUIDELINES AND INSTRUCTIONS FOR PREPARING THE PROJECT:**

**TOPIC FOR THE PROJECT:**

**DESCRIPTIVE STATISTICS"AND ITS APPLICATION IN REAL LIFE.**

**KEY-POINTS ABOUT THE TOPIC. (USE IN POINT-B, UNDER THE HEADING INSTRUCTIONS)\*\*\***

- DEFINITION OF STATISTICS
- OBJECTIVES OF STUDYING STATISTICS
- RESEARCH QUESTIONS
- AREAS IN WHICH WE CAN USE STATISTICS IN REAL LIFE.
- TYPES OF DESCRIPTIVE STATISTICS.
- INTERESTING REAL-LIFE EXAMPLES IN DESCRIPTIVE STATISTICS UNDER ALL TYPES OF DESCRIPTIVE STATISTICS
- APPLICATION OF STATISTICS IN VARIOUS AREAS.
  - (Scientific disciplines: Statistics is used in the physical and social sciences, as well as in medicine.
  - Business: Statistics is used in business analytics to develop insights from data sets.
  - Government: Statistics is used in government.
  - Manufacturing: Statistics is used in manufacturing.
  - Psychology: Statistics is used in psychology.
  - Geology: Statistics is used in geology.
  - Sociology: Statistics is used in sociology.
  - Weather forecasting: Statistics is used in weather forecasting.
  - Clinical trial design: Statistics is used to design clinical trials to test the safety of drugs and medicines.

**INSTRUCTIONS:**

**WHAT SHOULD BE INCLUDED IN THE PROJECT.**

**(A). COVER PAGE IN THE FORMAT GIVEN BELOW.**

|   |  |
|---|--|
| <b><u>WELCOME TO MY PROJECT</u></b>               |  |
| NAME: .....                                       | <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;">PHOTO</div> |
| CLASS AND SECTION.....                            |  |
| NAME OF SCHOOL.....                               |  |
| SCHOOL ADDRESS.....                               |  |
| NAME OF SUBJECT TEACHER.....                      |  |
| SESSION.....                                      |  |
| SUBJECT: MATHEMATICS                              |  |
| FINISH THE FOLLOWING SENTENCES: -                 |  |
| <u>GOAL SHEET:</u>                                |  |
| • MY STRENGTH IN MATH INCLUDE: _____              |  |
| _____   |  |
| • MY WEAKNESSES IN MATH INCLUDE: _____            |  |
| _____   |  |
| • THE AREAS IN WHICH I HAVE IMPROVED IN MATH ARE: |  |
| _____   |  |
| _____   |  |
| _____   |  |
| _____   |  |

**(B). NOTE ON WHAT YOU HAVE LEARNT.**

**USE KEY POINTS:**

**C). PROJECT REFLECTION**

- 1). DATE OF START.....
- 2). DATE OF COMPLETION.....
- 3). AREAS OF IMPROVEMENT IN PROJECT.....

**(D). SELF AESSMENT QUESTIONS IN THE PROJECT RELEVANT TO THE TOPIC (MIN. 5 QUESTIONS)**

**(E). TEACHERS COMMENTS (TO BE DONE BY THE TEACHER).**

.....  
.....

NAME OF STUDENT.....

TEACHERS SIGNATURE.....

**\* NOTE:**

- MAKE A CREATIVE PROJECT.
- USE PROJECT SHEETS. (MINIMUM 10 SHEETS)
- USE GRAPH SHEETS IF REQUIRED
- COLOR PEN AND PENCIL CAN BE USED
- STICK FILE IS TO BE USED FOR THE PROJECT

- The PROJECT should be done in a loose ruled project sheets and fixed in a stick file.
- It should contain the following in the order
  - INDEX
  - ACKNOWLEDGEMENT
  - BIBLIOGRAPHY

**(PART-2) THE STUDENTS HAVE TO PREPARE A SPREADSHEET ( EXCEL FILE ) FOR THE INTERNAL ASSESSMENTS IN APPLIED MATHEMATICS, AS PER THE GUIDELINES ISSUED BY CBSE.**  
**GUIDELINES AND INSTRUCTIONS FOR PREPARING THE FILE:**

Create a worksheet to keep track of revenue collected and expenses done in conducting tour programs at different tourist places during 2020 to 2024.

**(WRITE THE EXCEL FORMULAE/FUNCTIONS) in order to perform the given task**

**Q1**Format the numeric data in currency format.

**Q2**Prepare year wise columns for revenue and expenses for each tourist place and calculate the difference.

**Q3**The calculated difference may be negative, the format of negative balance may bered coloured.

**Q4** Use conditional formatting for higher and lower values of revenue and expenses.

**Q5** Align entire text in centre.

**Q6** The font of tourist place is Arial with14 points while the font of year is Times Roman with 14 points.



Q7 Calculate average expenditure of Manali.

Q8. Find total expenditure of the year 2020.

Q9. Increase the revenue for KERALA by 20% for the year 2024.

Q10. Count the number of tourist places in the given sheet.

(Amount in lacs)

| Tourist place | 2020 |       | 2021 |       | 2022 |       | 2023 |       | 2024 |       |
|---------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|               | REV  | EXPD. | REV  | EXPD. | REV  | EXPD. | REV  | EXPD. | REV  | EXPD. |
| MANALI        | 125  | 120   | 225  | 110   | 325  | 220   | 425  | 320   | 525  | 320   |
| SHILLONG      | 120  | 105   | 220  | 115   | 220  | 205   | 320  | 255   | 320  | 205   |
| KERALA        | 95   | 75    | 195  | 175   | 195  | 175   | 195  | 175   | 195  | 120   |
| SRINAGAR      | 85   | 45    | 185  | 145   | 185  | 145   | 285  | 245   | 385  | 245   |
| KASHMIR       | 250  | 200   | 150  | 100   | 350  | 250   | 230  | 200   | 350  | 200   |
| RAJSTHAN      | 145  | 120   | 125  | 100   | 250  | 190   | 165  | 120   | 245  | 190   |
| LEH           | 200  | 180   | 210  | 180   | 200  | 180   | 240  | 195   | 240  | 160   |

Q11. USE THE ABOVE DATA AND REPRESENT IT USING THE DOUBLE BAR GRAPH IN THE SPREADSHEET

**NOTE: THE HOLIDAY HOMEWORK HAS TO BE SUBMITTED as per instructions.**

**PART-1 TO BE SUBMITTED AFTEFR VACATTIONS.**

**PART-2 TO BE SUBMITTED AS A SOFT COPY ([puneetaggarwal79@gmail.com](mailto:puneetaggarwal79@gmail.com))**

**Mention NAME, CLASS, SECTION as a SUBJECT.**

## PHYSICS :

### Instructions :

- (i) The project report should be handwritten in A-4 size Project sheets.
- (ii) The project report should be of 25-30 pages.
- (iii) The project report should be presented in the following order:
  - a) Cover page showing name of school, title of the project, name of subject, academic session, student information and name of the guide teacher along with his/her designation.
  - b) Certificate
  - c) Acknowledgement
  - d) Index
  - e) Content with relevant headings
  - f) Summary and conclusion based on findings
  - g) Bibliography/References
- (iv) Credit will be awarded to the original drawings and illustrations and creative use of materials.
- (v) All photographs and sketches should be labelled and acknowledged.
- (vi) Check the relevant content and References from different books and web sites.

**Prepare an investigatory project report on any one topic out of the following -**

- a) Projectile Motion and Its Applications
- b) Surface Tension in Different Liquids & its Dependence on Temperature
- c) Behaviour of Water in Capillary Tubes of Different Diameters
- d) Study of Hydrostatic Pressure and Its Variation with Depth
- e) Study of Resonance in a Tuning fork
- f) Effect of Damping on Simple Harmonic Motion
- g) Standing Waves on a Stretched String
- h) Study of Latent Heat of Fusion or Vaporization of a Substance

- i) Investigating the Relationship between Pressure and Volume (Boyle's Law)
  - j) Bernoulli's Principle and its daily life Applications
  - k) Study of Thermal Expansion of Solids and Liquids
  - l) Analysis of Heat Transfer through Conduction, Convection and Radiation
- 

**CHEMISTRY: Prepare an Investigatory project report on any ONE of the following topics :**

- a) Classification of Elements And Periodic Properties
- b) Thermodynamics
- c) Equilibrium
- d) Organic Chemistry- Some Basic Principles
- e) Hydrocarbons
- f) Chemical Bonding and Molecular Structure

**• Instructions:**

- (i) The project report should be handwritten in A-4 size (Interleaf) Project sheets.
  - (ii) The project report should be of 25-30 pages.
  - (iii) The project report should be presented in the following order:
    - (a) Cover page showing name of school, title of the project, name of subject, academic session, student information and name of the guide teacher along with his/her designation.
    - (b) Certificate
    - (c) Acknowledgement
    - (d) Index
    - (e) Content with relevant headings
    - (f) Summary and conclusion based on findings
    - (g) Bibliography/References
  - (iv) Credit will be awarded to the original drawings and illustrations and creative use of materials.
  - (v) All photographs and sketches should be labelled and acknowledged.
- 

**Biology :**

**Prepare an investigatory project report on any one topic out of the following-**

- a) Breathing and Exchange of Gases in human body and related disorders.
- b) Human Blood Circulatory System and related disorders.
- c) Excretory Products and their elimination in human body and related disorders.
- d) Neural Control and Coordination in human body and related disorders.
- e) Human Endocrine System and related disorders.

**Instructions:**

- i) The project report should be handwritten in A-4 size Project sheets.
- ii) The project report should be of 20-25 pages.
- iii) The project report should be presented in the following order:
  - a) Cover page showing name of school, title of the project, name of subject, academic session, student information and name of the guide teacher along with his/her designation.
  - b) Certificate
  - c) Acknowledgement
  - d) Index
  - e) Content with relevant headings
  - f) Summary and conclusion based on findings
  - g) Bibliography/References

- iv) Credit will be awarded to the original drawings and illustrations and creative use of materials.
- v) All photographs and sketches should be labelled and acknowledged.
- vi) Check the relevant content and References from different books and web sites.

**COMPUTER SCIENCE:**

*Do the following questions in A4 sheet and provide in strip file .*

| NO.      | AIM  |       |       |      |   |       |   |       |   |          |   |
|----------|--|-------|-------|------|---|-------|---|-------|---|----------|---|
| 1        | Write a program to obtain x, y, z and calculate $4x^4+3y^3+9z+6\pi$ .  |       |       |      |   |       |   |       |   |          |   |
| 2        | Write a program to input percentage marks of a student and find the grade as per following criterion:<br><table style="margin-left: 20px;"> <tr> <td>Marks</td> <td>Grade</td> </tr> <tr> <td>&gt;=90</td> <td>A</td> </tr> <tr> <td>75-90</td> <td>B</td> </tr> <tr> <td>60-75</td> <td>C</td> </tr> <tr> <td>Below 60</td> <td>D</td> </tr> </table> | Marks | Grade | >=90 | A | 75-90 | B | 60-75 | C | Below 60 | D |
| Marks    | Grade  |       |       |      |   |       |   |       |   |          |   |
| >=90     | A  |       |       |      |   |       |   |       |   |          |   |
| 75-90    | B  |       |       |      |   |       |   |       |   |          |   |
| 60-75    | C  |       |       |      |   |       |   |       |   |          |   |
| Below 60 | D  |       |       |      |   |       |   |       |   |          |   |
| 3        | Write a program to enter a number and check if it is a prime number or not.  |       |       |      |   |       |   |       |   |          |   |
| 4        | Write a program to display a menu for calculating area of circle or perimeter of the circle.   |       |       |      |   |       |   |       |   |          |   |
| 5        | Write a program to calculate and print the roots of a quadratic equation $ax^2+bx+c=0.(a\neq 0)$   |       |       |      |   |       |   |       |   |          |   |
| 6        | Write a Python script to print Fibonacci series' first 20 elements.  |       |       |      |   |       |   |       |   |          |   |
| 7        | Write a program to read an integer>1000 and reverse the number.  |       |       |      |   |       |   |       |   |          |   |
| 8        | Write python script to print following pattern.<br><pre> 1 1 3 1 3 5 1 3 5 7 </pre>  |       |       |      |   |       |   |       |   |          |   |
| 9        | Write a program to find sum of series :<br>$s=1+x+x^2+x^3+x^4+...+x^n$   |       |       |      |   |       |   |       |   |          |   |
| 10       | Write a python script to input two numbers and print their lcm and,hcf.  |       |       |      |   |       |   |       |   |          |   |
| 11       | Write a program that takes a string with multiple words and then capitalizes the first letter of each word and forms a new string out of it.   |       |       |      |   |       |   |       |   |          |   |
| 12       | Write a program that reads a string and checks whether it is a palindrome string or not.   |       |       |      |   |       |   |       |   |          |   |
| 13       | Write a program that reads a string and displays the longest substring of the given string having just the consonants.   |       |       |      |   |       |   |       |   |          |   |
| 14       | Write a program to display prime numbers from a list of integers   |       |       |      |   |       |   |       |   |          |   |
| 15       | Write a program to find sum of even and odd digits separately from a list of elements  |       |       |      |   |       |   |       |   |          |   |

Q2: Solve question paper of UT2 in your class work copy.

**HISTORY:** All students are required to do a project on **ANY TOPIC OF SYLLABUS 2024-25.**

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

1. The total length of the project report will not be more than 10-15 written pages of A-4 size paper).
2. The project report will be handwritten and credit will be awarded to original drawings, illustrations, photographs, artworks, good layout and creative use of materials.
3. The project report will be presented in a neatly bound simple project file.
4. **The project report will be developed and presented in this order**
  - Cover page showing project title, student information, school and year.
  - List of contents with page numbers.
  - Certificate.
  - Acknowledgement.
  - Chapters with relevant headings.
  - Summary and conclusions.
  - Bibliography

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#### **POLITICAL SCIENCE :**

All students are required to make a project on **ANY TOPIC FROM SYLLABUS 2024-25**

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

1. The total length of the project report will not be more than 8-10 written pages of A-4 size paper).
2. The project report will be handwritten and credit will be awarded to original drawings, illustrations, photographs, artworks, good layout and creative use of materials.
3. The project report will be presented in a neatly bound simple project file.
4. **The project report will be developed and presented in this order**
  - Cover page showing project title, student information, school and year.
    - List of contents with page numbers.
    - Certificate.
    - Acknowledgement.
    - Chapters with relevant headings.
    - Summary and conclusions.
    - Bibliography

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#### **GEOGRAPHY :**

1. Prepare a project on the Erosional and Depositional Land forms of the following Geomorphic Agents:
  - a) Running Water
  - b) Ground Water
  - c) Glaciers
  - d) Waves & Currents
  - e) Winds

#### **INSTRUCTIONS:**

- a) The total length of the project report should be 25-30 A-4 size sheets.
- b) The project work should be hand written
- c) Paste/ Draw, colourful pictures/Diagrams.
- d) It should be presented in a neatly bound simple project file. The project should be developed and presented in the following order
  - i) Cover page showing project title, student information, school and year.
  - ii) List of contents with page number.

- iii) Certificate page
- iv) Acknowledgement
- v) Explanation
- vi) Bibliography

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**ECONOMICS** : As per CBSE guidelines for the session 2024-25 the students will prepare a project work on any **ONE** of the following topics :

1. Price Determination
2. Demand and its determinants along with case studies
3. Elasticity of demand along with case studies
4. Elasticity of supply along with case studies
5. Supply and its determinants along with case studies
6. Monopoly- Indian railway
7. Monopolistic Competition- toothpaste market in India
8. Imperfect competition and Market Failure
9. Theories of Utility (Ordinal and Cardinal Approach)
10. Opportunity Cost
11. Production- Returns to a factor
12. Oligopoly- Cement Industry, cellular networks industry with emphasis on the price wars started by reliance Jio, Automobile Industry
13. Gandhian Economics
14. Gram Swaraj- An alternative Economic Model
15. Role of Swadeshi in development of Indian Economy
16. Case study of a model village (Economic Perspective)- Hiwre Bazar (MH), Piplantri (RJ), Pansari (GJ) etc.
17. Boycott Chinese items vs Upliftment of Swadeshi
18. Impact of Corona Crisis on Indian Economy
19. Impact of Corona Crisis on Agricultural
20. Impact of Lockdown on Indian Industries
21. New Economic trends after corona breakdown
22. Paradigm shift in Indian Economy after Corona Virus Breakdown.

**GENERAL INSTRUCTIONS:**

- e) The total length of the project report should not be more than the 15 written pages or 700 words of A-4 size sheet.
- f) The project work should be hand written and credit will be given to original drawing.
- g) It should be presented in a neatly bound simple project file. The project should be developed and presented in the following order
  - vii) Cover page showing project title, student information, school and year.
  - viii) List of contents with page number.
  - ix) Certificate page
  - x) Acknowledgement
  - xi) Summary and Conclusion
  - xii) Bibliography

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**ACCOUNTANCY:** Project Work (Any One)

1. Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers.
2. Preparation of Bank Reconciliation Statement with the given cash book and the pass book with twenty to twenty-five transactions.

3. Comprehensive project of any sole proprietorship business. This may state with journal entries and their ledgering, and preparation of Trial balance. This may include simple GST related transaction.

**GENERAL INSTRUCTIONS:**

- a) The total length of the project report should not be more than the 15 written pages or 700 words of A-4 size sheet.
- b) The project work should be hand written and credit will be given to original drawing.
- c) It should be presented in a neatly bound simple project file. The project should be developed and presented in the following order :
  - i) Cover page showing project title, student information, school and year.
  - ii) List of contents with page number.
  - iii) Certificate page
  - iv) Acknowledgement
  - v) Summary and Conclusion
  - vi) Bibliography

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**PSYCHOLOGY :**

- Students complete your practical work.

**Attempt all these questions on your homework notebook.**

1. Draw the stage model of memory.
2. Explain all types of interference.
3. Explain the forgetting theory.
4. What are the ways to enhance memory? Explain all the methods.
5. Define sensation.
6. What are the theories of selective attention ? explain it.
7. Explain all types of illusions.
8. What are perceptual constancies? explain all types of perceptual constancy.

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**PHYSICAL EDUCATION :**

1. File on any 1 Sports/ Game under (IOA)
2. BMI and WHR test- on any 10 individual respectively.

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**BUSINESS STUDIES**

**I. Project One: Field Visit**

The objective of introducing this project among the students is to give a firsthand experience to them regarding the different types of business units operating in their surroundings, to observe their features and activities and relate them to the theoretical knowledge given in their textbooks. The students should select a place of field visit from the following: – (Add more as per local area availability.)

1. Visit to a Handicraft unit.
2. Visit to an Industry.
3. Visit to a Wholesale market (vegetables, fruits, flowers, grains, garments, etc.)
4. Visit to a Departmental store.
5. Visit to a Mall.

The following points should be kept in mind while preparing this visit.

1. Select a suitable day free from rush/crowd with lean business hours.
2. The teacher must visit the place first and check out on logistics. It's better to seek permission from the concerned business- incharge.
3. Visit to be discussed with the students in advance. They should be encouraged to prepare a worksheet containing points of observation and reporting.

4. Students may carry their cameras (at their own risk) with prior permission for collecting evidence of their observations.

### **1. Visit to a Handicraft Unit**

The purpose of visiting a Handicraft unit is to understand nature and scope of its business, stakeholders involved and other aspects as outlined below

- a) The raw material and the processes used in the business: People /parties/firms from which they obtain their raw material.
- b) The market, the buyers, the middlemen, and the areas covered.
- c) The countries to which exports are made.
- d) Mode of payment to workers, suppliers etc.
- e) Working conditions.
- f) Modernization of the process over a period of time.
- g) Facilities, security and training for the staff and workers.
- h) Subsidies available/ availed.
- i) Any other aspect that the teachers deem fit.

### **2. Visit to an Industry.**

The students are required to observe the following:

- a) Nature of the business organisation.
- b) Determinants for location of business unit.
- c) Form of business enterprise: Sole Proprietorship, Partnership, Undivided Hindu Family, Joint Stock Company (a Multinational Company).
- d) Different stages of production/process
- e) Auxiliaries involved in the process.
- f) Workers employed, method of wage payment, training programmes and facilities available.
- g) Social responsibilities discharged towards workers, investors, society, environment and government.
- h) Levels of management.
- i) Code of conduct for employers and employees.
- j) Capital structure employed- borrowed v/s owned.
- k) Quality control, recycling of defective goods.
- l) Subsidies available/availed.
- m) Safety Measures employed.
- n) Working conditions for labour in observation of Labour Laws.
- o) Storage of raw material and finished goods.
- p) Transport management for employees, raw material and finished goods.
- q) Functioning of various departments and coordination among them (Production, Human Resource, Finance and Marketing)
- r) Waste Management.
- s) Any other observation.

### **3. Visit to a wholesale market: vegetables/fruits/flowers/grains/garments etc.**

The students are required to observe the following:

- a) Sources of merchandise.
- b) Local market practices.
- c) Any linked up businesses like transporters, packagers, money lenders, agents, etc.
- d) Nature of the goods dealt in.
- e) Types of buyers and sellers.
- f) Mode of the goods dispersed, minimum quantity sold, types of packaging employed.
- g) Factors determining the price fluctuations.
- h) Seasonal factors (if any) affecting the business.

- i) Weekly/ monthly non-working days.
- j) Strikes, if any- causes thereof.
- k) Mode of payments.
- l) Wastage and disposal of dead stock.
- m) Nature of price fluctuations, reason thereof.
- n) Warehousing facilities available\availed.
- o) Any other aspect.

#### 4. Visit to a Departmental store

The students are required to observe the following:

- a) Different departments and their layout.
- b) Nature of products offered for sale.
- c) Display of fresh arrivals.
- d) Promotional campaigns.
- e) Spaces and advertisements.
- f) Assistance by Sales Personnel.
- g) Billing counter at store – Cash, Credit Card/ Debit Card, swipe facility. Added attractions and facilities at the counter.
- h) Additional facilities offered to customers
- i) Any other relevant aspect.

#### 5. Visit to a Mall.

The students are required to observe the following:

- a) Number of floors, shops occupied and unoccupied.
- b) Nature of shops, their ownership status
- c) Nature of goods dealt in: local brands, international brands,
- d) Service business shops- Spas, gym, saloons etc.
- e) Rented spaces, owned spaces,
- f) Different types of promotional schemes.
- g) Most visited shops.
- h) Special attractions of the Mall- Food court, Gaming zone or Cinema etc.
- i) Innovative facilities.
- j) Parking facilities.

#### II Project Two: Case Study on a Product

Take a product having seasonal growth and regular demand with which students can relate. For example,

- Apples from Himachal Pradesh, Kashmir.
- Oranges from Nagpur,
- Mangoes from Maharashtra/U.P./Bihar/Andhra Pradesh etc.
- Strawberries from Panchgani,
- Aloe vera from Rajasthan,
- Walnuts/almonds from Kashmir,
- Jackfruit from South,
- Guavas from Allahabad,
- Pineapples from North East India,
- Tea from Assam,
- Orchids from Sikkim and Meghalaya,
- Pottery of Manipur,
- Fishes from coastal areas.



Students may develop a Case Study on the following lines:

- (i) Research for change in price of the product. For example, apples in Himachal Pradesh during plucking and non plucking season.
- (ii) Effect on prices in the absence of an effective transport system.
- (iii) Effect on prices in the absence of suitable warehouse facilities.
- (iv) Duties performed by the warehouses.
- (v) Demand and supply situation of the product during harvesting season, prices near the place of origin and away.

Students may be motivated to find out the importance of producing and selling these products and their processed items along with the roles of Transport, Warehousing, Advertising, Banking, Insurance, Packaging, Wholesale selling, Retailing, Co-operative farming, Co-operative marketing etc.

### III. Project Three: Aids to Trade

Taking any one AID TO TRADE, for example Insurance and gathering information on following aspects

1. History of Insurance Lloyd's contribution.
2. Development of regulatory Mechanism.
3. Insurance Companies in India
4. Principles of Insurance.
5. Types of Insurance. Importance of insurance to the businessmen.
6. Benefits of crop, orchards, animal and poultry insurance to the farmers.
7. Terminologies used (premium, face value, market value, maturity value, surrender value) and their meanings.
8. Anecdotes and interesting cases of insurance. Reference of films depicting people committing fraudulent acts with insurance companies.
9. Careers in Insurance.

### IV. Project Four: Import /Export Procedure

Any one from the following

1. Import /Export procedure

The students should identify a product of their city/country which is imported /exported. They are required to find the details of the actual import/export procedure. They may take help from the Chambers of Commerce, Banker, existing Importers/Exporters, etc.

They should find details of the procedure and link it with their Text knowledge.

The specimens of documents collected should be pasted in the Project file with a brief description of each. They may also visit railway godowns/dockyards/ transport agencies and may collect pictures of the same.

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 project will be in a file format, consisting of the recordings of the value of shares and the graphs.
2. The project will be handwritten.
3. The project will be presented in a neat folder.
4. The project report will be developed in the following sequence-
  - Cover page should project the title, student information, school and year.

- List of contents.
- Acknowledgements and preface (acknowledging the institution, the news papers read, T.V. channels viewed, places visited and persons who have helped).
- Introduction.
- Topic with suitable heading.
- Planning and activities done during the project, if any.
- Observations and findings while conducting the project.
- News paper clippings to reflect the changes of share prices.
- Conclusions (summarised suggestions or findings, future scope of study).
- Appendix (if needed).
- Teachers report.
- Teachers will initial preface page.
- At the completion of the evaluation of the project, it will be punched in the centre so that the report cannot be reused but is available for reference only.
- The projects will be returned after evaluation. The school may keep the best projects.

#### **V. Project Five: A visit to any State Emporium (other than your school state).**

The purpose of this project is that it leads to -

- Development of deeper understanding of the diversity of products in the states like Assam, Tripura, Nagaland, Mizoram, Manipur, Meghalaya, Sikkim, Arunachal Pradesh, Jammu and Kashmir, Kerala, Chhatisgarh, Telangana, Andhra Pradesh and other states of the country.
- Sensitization and orientation of students about other states, their trade, business and commerce,
- Understanding the cultural and socio-economic aspects of the state by the students,
- Developing the understanding of role of folk art, artisanship and craftsmanship of the state in its growth and economic development
- Understanding the role of gifts of nature and natural produce in the development of trade, business and commerce
- Understanding the role of vocational skills and abilities on the livelihood of artisans/ craftsman
- Understanding of entrepreneurial skills and abilities of the artisans/craftsman
- Understanding of the unemployment problem of the state and role of art and craft of the state in generating employment opportunities
- Value aspect -
- Sense of gratitude - betterment of our lives by appreciating the contributions made by others in the
- Appreciating the dignity of work
- Sensitivity towards social, cultural, ethical and religious differences Benefits of social harmony and peace
- Understanding and appreciating the unity in diversity in India
- Appreciating differences in race, skin colour, languages, religion, habits, festivals, clothing coexistence

#### **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. Nature of the business organisation (emporium)
2. Determinants for location of the concerned emporium
3. Is the space rented or owned
4. Nature of the goods dealt in
5. Sources of merchandise of the emporium
6. Role of co-operative societies in the manufacturing and/or marketing of the merchandise

7. Role of gifts of nature or natural produce in the development of goods/merchandise. 8.Types of buyers and sellers
9. Modes of goods dispersed, minimum quantity sold and type of carrying bag or package used for delivery of the products sold
10. Factors determining the pricing at the emporium
11. Comparison between the prices of goods available at the emporium with the prices in the open market. Also highlight probable causes of variations if any.
12. Kind of raw material available naturally, used in making the products
13. The technique used in making the products i.e., handmade or machine made
14. Has the child labour being used in making the products sold at the emporium
15. Are the products eco-friendly, in terms of manufacturing, disposal and packing
16. Seasonal factors if any affecting the business of the emporium
17. Weekly/ Monthly non-working days
18. Mode of billing and payments - Cash, Credit Card/ Debit Card, Swipe facility.
19. Does the emporium sell its merchandise in instalment / deferred payment basis
20. Do they provide home delivery and after sales services?
21. Different types of promotional campaigns / schemes
22. Assistance by Sales Personnel
23. Export orientation of this emporium and procedure used
24. Policies related to damaged/ returned goods
25. Any government facility available to the emporium
26. Warehousing facilities available / availed
27. Impact of tourism on the business of emporium
28. Additional facility offered to customers
29. Any Corporate Social Responsibility (CSR) assumed by the emporium
30. Contribution made by the emporium to its locality

### MUSIC (TABLA)

Project Work :

1. Definitions of following : Laya, Sangeet, Kala
2. Write down the Thah, Dugun & Chaugun- Teentaal, Jhaptaal, Ektaal with introduction.
3. Brief note on – Banaras Gharana.
4. Kaida in Teentaal.
5. Kaida- Rela in Teentaal.
6. Three Tukdas in Teentaal.
7. Life Sketch : Pt. Kudau Singh, Pt. Nana Panse

**Note : Homework to be done in Project File Only.**

### MUSIC (VOCAL) :

- Q.-1. Write about the Structure of Tanpura with the help of a labeled diagram.
- Q.-2. Write down the following Taals' with Dugun & Chaugun laykari along with Taal Notation :  
Teental, Jhaptal, Roopak Taal, Dhamar Taal, Chautaal, Dadra, Keherwa & Ektaal.
- Q.-3. Give the Life-Sketch of the following :  
\* Miyan Tansen      \* V.N.Bhatkhande      \* V.D.Paluskar
- Q.-4. Give the description of the following Ragas :  
a) Raga Bhairavi      b) Raga Bihag      c) Raga Bhimpalasi      d) Raga Bhairav.

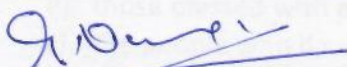
**Note : Homework to be done in Project File Only.**

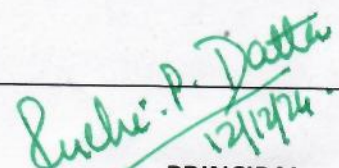
### PAINTING :

- Make 8 Portraits in water colour.

**Note : Size- A3**

**Sheet- Cartridge Sheet (Drawing sheet)**

  
HEAD SENIOR SCHOOL

  
PRINCIPAL