ARMY PUBLIC SCHOOL CLEMENTTOWN, DEHRADUN
SUMMER HOLIDAY HOMEWORK
COMMERCE STREAM

ENGLISH

"Hold yourself responsible for a higher standard than anybody else expects of you."
 - Henry Ward Beecher

1 A. WRITE NOTICES FOR THE FOLLOWING OCCASIONS (ONE OF EACH CATEGORY)

a. Tours b. Sports c. Cultural / Extra- curricular activities d. Lost & Found   e. Appeals

1 B. Download English Core (301) Board Examination question paper (2022-23) and solve Section A- Q1 and Q2.

1C. Frame 5 MCQs from each chapter/ poem taught in the class.

2.SUGGESTED FILMS TO WATCH

  A) TOWERING INFERNO   B) THE MAN WHO KNEW INFINITY – A BIOPIC

  C) GANDHI - DIRECTED BY RICHARD ATTEN BOROGH (MUST WATCH AS IT IS REFERENCE TO TEXT "THE INDIGO")

     Write a critical appreciation of any 1 film -word limit 200 words ..

3.ART INTEGRATED (ANY ONE)

1.Flamingo: "The Last Lesson" by Alphonse Daudet •

Art Reflection: Create a visual representation of your favorite scene from the story using any art medium of your choice. You can draw, paint, or use mixed media to depict the emotions and themes of the story.

2. Flamingo: "Lost Spring" by Anees Jung

Art reflection: Collage of Despair: Create a collage using newspaper clippings and magazine cutouts to represent the harsh realities of child labor and poverty discussed in the chapter. The collage can capture the essence of the story and evoke emotions related to the theme.

.

4.ENGLISH PROJECT (2023-24)

1.   INTRODUCTION

The project consists of 10 MARKS out of which, 5 MARKS will be allotted for the PROJECT FILE and the remaining 5 MARKS for the VIVA based on the file.

2.   CONTENT OF THE PROJECT FILE:

The project file to include the following:

•	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)
•	Essay/report should be written in 800-1000 words.
•	Student reflections (the new learning experience/outcome achieved after completing the project)
•	If possible, photographs that capture positive learning experience of the students (collages/pics from various online sources) can be pasted.
•	List of Resources/Bibliography (Last page of the project file)
3.	INSTRUCTIONS:
•	Refer to the links of the videos attached with each topic (You can also select different videos available on YouTube, relevant to your topic).
•	Listen to these podcasts, documentaries, interviews etc. on the given topics.
•	Do a thorough research on the topic assigned.
•	Prepare a report/essay in about 800-1000 words describing the topic/issue/ giving your own opinion/ suggestions/measurs/ viewpoints/its impact on people/your learning experience.
•	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 the assigned topic.
	Use coloured practical sheets.
	Plagiarism is strictly prohibited.

Students can select any one of the given topics for your English Project:

1.	Existential risk from artificial general intelligence
	Include the following sub-headings:
•	What is AI?
•	Brief history of AI
•	Difficulties
•	Argument in favour and against AI
•	Hypothetical scenarios
•	Will Chatbot technology deceive human intelligence. Write a poem/ article and paste pictures to present your views.

2.Unleash your real potential – be bold, be resilient, be strong (Importance of a resilient attitude)

• What do you mean by Resilient Attitude.
• Traits, qualities and characteristics of Resilient person.
• How personal choices help or hinder our resilience.
• Tips for Building and Cultivating Resilience.
• Why is resilience important?
• Is Resilience a skill or character strength?
• What are the seven C's of Resilience?
• Different types of resilience
• Key component and element of resilience life
• Take an example of the chapter— Deep Water
• Other examples of great personalities

3."When a people are enslaved, as long as they hold fast to their language it is as if they had the key to their prison."

• Importance of Language
• Meaning of 'Linguistic chauvinism'
• Find examples in history where conquered people had their language taken away from them or had a language imposed of them—What was the result/outcome
• Problems faced by linguistic minority
• How can they keep their language alive
• Linguistic human rights
• Linguistic Chauvinism examples from English literature

DATE OF SUBMISSION: 10 July 2023.

ACCOUNTANCY

Holiday Homework (2023-2034)

Note: Do all the holiday homework in accounts notebook Notebook in question bank ¼ section of notebook

1. **CASE BASED MCQs-** Solve from ch-1,2,3 given in your text book
2. **REMEMBERING (knowledge based)-** Draft 5 questions each ch-1,2,3 from given in your text book
3. **UNDERSTANDING BASED –** Draft 2 questions each ch-1,2,3 from given in your textbook

4. ***APPLICATION BASED –*** Draft 2 questions each ch-1,2,3 from given in your textbook
5. ***INCOMPLETE INFORMATION BASED-*** Solve 2 questions each ch-1,2,3 from given in your textbook
6. ***ASSERTION-REASON BASED-*** Draft 5 questions each ch-1,2,3 from given in your textbook
7. **OBJECTIVE TYPE** -Draft 5 each type questions each chapter 1,2,3 from textbook.
   - *True/false (5)*
   - *Fill in the blanks (5)*
   - *Matching questions (5)*
8. Prepare a Project on a Comprehensive Problem as CBSE prescribed.

BUSINESS STUDIES

1. Write 10 Case Studies of chapter 1 in a separate Holiday Homework NoteBook.
2. Make 10 MCQ from Ch.1 and Prepare a question bank.
3. Write 10 Case Studies of chapter 2.
4. Make 10 MCQ from ch.-2 and Prepare a question bank.
5. Complete Practical File work as per the instructions given in the class.
   Project File(Any One Topic)
a. Principles of management
b. Elements of business Environment.
c. Stock Exchange.
d. Marketing (of any one given product)

ECONOMICS

1.   Learn unit 1. National Income , unit 2. Money and Banking and unit 3. Income and Employment Theory for first unit test.

2.   Write the Answer of the following questions in your holiday homework notebook

A.   "All consumer goods are final goods but all final goods are not consumer goods." Explain this statement.

B.   Categories the following into stock and flow with reason - a) money supply in a country. b). printing of new currency notes by RBI during 22-23, c). Population of Uttarakhand, d) Number of cars in a factory go down, e) Production of wheat,

C.   What is mixed income? Why is mixed income called mixed income?

D.   What are the components of operating surplus and profit?

3.   Amongst <u>leakages and injections</u> which one is beneficial for the economy of a country and why?

4.   Which of the following are <u>factor income from abroad</u> for India – a) salary of an Indian employee working in branch of SBI working in USA for more than one year, b) salary of an employee working in Indian embassy located in UK, c) Match fees of member of Indian cricket team playing match in South Africa, d) Income of an Indian engineer worked in Russia for four months.

5.   <u>Exchange rate</u> of foreign currencies like the Dollar changes very frequently nowadays in the market. Find out why does the exchange rate of dollars rise or fall?

Suppose you are an exporter of handicrafts and you are exporting clothes and carpets to the USA, now what will be the effect on your exports in both the cases if the dollar becomes dearer or cheaper in terms of Indian rupee? Give reason also.

6.   India imports petroleum products in large quantities every year because we produce only 20 percent of our domestic demand in India. Rest 80 % we import from different countries. Suppose you are the owner of an oil refinery which depends on imports of crude, and suddenly your import bill rises extremely due to a hike in the price of crude in the international market.

Now, what can be the possible <u>effect on imports</u> of crude and why?

 7.   Since the last few months, the inflation rate in the Indian market has reached in two digits. Price rises in the market due to <u>excess demand</u> for goods and services. Too much inflation creates a lot of problems in a society. RBI wants to control rapid increase in the prices of goods and services in the country.

Explain all possible steps (e.g. repo rate etc.) which can be undertaken by RBI to control inflation (excess demand).

8.   Select / choose a topic of your choice for   <u>practical/project</u> of board exam for   20 marks. On this topic you have to collect material. Show this material after summer break. Do not prepare the final project file. Collect related data tables, diagrams, graphs, pics and flow charts. (suggested topics are given separately to you.)

9. Prepare a **Powerpoint Presentation** on any one Unit from National income, Money and banking and Income and Employment theory.

10. Prepare a question bank of at least 10 questions from the chapter "Money and Banking.

MATHS

Solve the Questions from the following Chapters

RELATIONS AND FUNCTIONS

1)   State whether the function is one – one, onto or bijective f: R à R defined by f(x) = 1+ xState whether the function is one – one, onto or bijective f: R à R defined by f(x) = 1+ x

2)   Let f: R à R be define as f(x) = x^4 check whether the given function is one – one onto,

or other.

3)   Let T be the set of all triangles in a plane with R a relation in T given by R = {(T1, T2): T1 is congruent to T2}.

Show that R is an equivalence relation.

4)   Show that the relation R in the set Z of integers given byR={(a, b) : 2 divides a-b}. is equivalence relation.

5)   Check whether the relation R defined in the set {1, 2, 3, 4, 5, 6} asR = {(a, b): b = a+1} is reflexive, symmetric or transitive.

6)   Show that the relation in the set R of real no. defined R = {(a, b) : a b3 }, is neither reflexive nor symmetric nor transitive. Show that the relation in the set R of real no. defined R = {(a, b) : a b3 }, is neither reflexive nor symmetric nor transitive.

INVERSE TRIGONOMETRIC FUNCTIONS

1 Draw the Graphs of all Inverse Trigonometric Functions.

DIFFERENTIATION

1. Find the derivatives of the following functions at any point of their domains :

(i)   Sec (2x + 3)

(ii)   cos x²

(iii)   cos (log x)

(iv)   √1 + tan x

(v)   sin √x + cos2√x

 2. Differentiate w.r.t x :-

(i)   (sin2x)/(1 + cos2x)

(ii)   (1 – cos x)/(1 + cos x)

(iii)   √log (sin ((x²/3) – 1))

(iv)   log √(1-sin x)/(1 + sin x)

(v)   √sin √x

(vi)   sin (e^x log x)

(vii)   e^{ax} /sin (bx + c)

(viii) log (x + e√x)

 3.   Find the second derivative of the following functions:

(i)   ax^3+bx^2+cx+d

(ii)   log (log x)

(iii)   log {x+ $\sqrt{(x^2+1)}$}

4. (i) If y = tan x , prove that y2 = 2 y y1.

(ii)   If y = x + tan x , prove that $\cos 2x\,(d^2y/dx^2) - 2y + 2x = 0$.

(iii)   If y = 3 e^{2x} + 2 e^{3x} , prove that $(d^2y/dx^2) - 5(dy/dx) + 6y = 0$

(iv)   If y = a cos (log x) + b sin (log x) , show that $x_2y_2 + xy_1 + y = 0$.

(v)   If y = 2 sin x + 3 cos x , prove that $y + (d^2y/dx^2) = 0$.

(vi)   If y = log {x + $\sqrt{(x^2+a2)}$} , show that $(x^2+a^2)y_2 + xy_1 = 0$.

5.   Differentiate the following functions with respect to x :

1) $(x+1)^2\,(x+2)^{3}\,(x+3)^4$

2) $x^y\,y^x = ab$

3) $x^y + y^x = 1$

4) $x^y = e^{x-y}$.

5)   Y=x^x

6)   y=(2x+3)x-5 (cosx)x + (sinx)1/X

7)   y=xsinx+cosx .

MATRICES

1 Do the solved Examples and Miscellaneous of chapter 3

2 Do the solved Examples and Miscellaneous of chapter 4

DO IT YOURSELF

•   Make a question bank of 2 marks ,3 marks .5 marks(10-10 questions each from Exercises covered in class and solve it)

•   Art Intregrated learning on any topic covered in class

MULTIPLE CHOICE QUESTION

1. The smallest integer function f(x) = [x]

 (a) One-one   (b) Many-one   (c) Both (a) & (b)   (d) None of these

2. Which of the following functions from Z into Z are bijective?

(a) f(x) = x^3 (b) f(x) = x + 2   (c) f(x) = 2x + 1   (d) f(x) = x2 + 1

3. Let A = {1, 2, 3, …. n} and B = {a, b}. Then the number of surjections from A into B is

(a) nP2   (b) 2n – 2   (c) 2n – 1   (d) none of these

4.Let us define a relation R in R as aRb if a ≥ b. Then R is

(a) an equivalence relation   (b) reflexive, transitive but not symmetric

(c) symmetric, transitive but not reflexive (d) neither transitive nor reflexive but symmetric

5.Let X = {-1, 0, 1}, Y = {0, 2} and a function f : X → Y defind by y = 2x4, is

(a) one-one onto   (b) one-one into
(c) many-one onto   (d) many-one into

6. For real x, let f(x) = x3+5x+1, then
(a) f is one-one but not onto R   (b) f is onto R but not one-one
(c) f is one-one and onto R   (d) f is neither one-one nor onto R

7. Let set X={1,2,3} and a relation R is defined in X as : R = {(1,3),(2,2),(3,2)} , then minimum ordered
pairs which should be added in relation R to make it reflexive and symmetric are
(a) {(1,1),(2,3),(1,2)}   (b) {(3,3),(3,1),(1,2)}
(c) {(1,1),(3,3),(3,1),(2,3)}   (d) {(1,1),(3,3),(3,1),(1,2)}

8. Let T be the set of all triangles in the
Euclidean plane, and let a relation R on T be defined as aRb if a is congruent to b, a, b€ T. Then R is
a) equivalence   b) reflexive but not transitive
c) transitive but not symmetric   d) none of these

9. If A = (1,2,3), B = (4,6,9) and R is a relation from A to B by 'x is smaller than y'. The range of R is
a) (4,6,9)   b) {1}   c) none of these   d) (1,4,6,9)

10. Let R be the relation "is congruent to" on the set of all triangles in a plane is
(a) reflexive   (b) symmetric   (c) symmetric and reflexive (d) equivalence
Q. 11. Let f / R -> R be defined by f(x) = 1/x,for all x belong to R Then f is
(A) one-one
(B) onto
(C) bijective
 (D) fis not defined
Q.12.A relation R in a set A is called _____, if (a1, a2) ∈ R implies (a2, a1) ∈ R, for all

a1, a2 ∈ A.

(a) symmetric   (b) transiivet   (c) equivalence   (d) non-symmetric

Q.13.Let R be a relation on the set N of natural numbers defined by nRm if n divides m. Then R is

(a) Reflexive and symmetric   (b) Transitive and symmetric

(c) Equivalence   (d) Reflexive, transitive but not symmetric

Q.14.The maximum number of equivalence relations on the set A = {1, 2, 3} are

(a) 1   (b) 2   (c) 3   (d) 5

Q.15. If set A contains 5 elements and the set B contains 6 elements, then the number of one-one and onto mappings from A to B is
(a) 720   (b) 120   (c) 0   (d) none of these
Q.16.Let A = {1, 2, 3}. Then the number of relations containing (1, 2) and (1, 3), which are reflexive and symmetric but not transitive is
(a) 1   (b) 2   (c) 3   (d) 4
Q.17.Number of binary operations on the set {a, b} are
(a) 10   (b) 16   (c) 20   (d) 8
Q.18.Let f : R → R be defined by f(x) = 3x – 4. Then f–1 (x) is given by

(a) (x + 4)/3   (b) (x/3) – 4(c) 3x + 4   (d) None of these
Q19.Set A has 3 elements, and set B has 4 elements. Then the number of injective mappings that can be defined from A to B is
(a) 144   (b) 12   (c) 24   (d) 64

Q.20.Let f : R → R be defined by f(x) = x^2+ 1. Then, pre-images of 17 and – 3,

respectively, are

(a) φ, {4, – 4}   (b) {3, – 3}, φ   (c) {4, –4}, φ   (d) {4, – 4}, {2, – 2}

INFORMATICS PRACTICES

1. Complete Practical File work as per the instructions given in the class.
2. Solve questions based on PYTHON from last three years sample papers issued by CBSE.
3. **ART INTEGRATED PROJECT:** Prepare **Powerpoint presentation** on any one topic out of the given topics:
   - Cyber Safety and Security
   - Information Technology ACT 2000
   - E-Waste and Its Management

OR
   - **Kahoot Quiz** On Python Pandas/ Matplotli
4. Revise MYSQL Concepts(Review of class XI).
5. Prepare Question Bank of 25 MCQs/T-F/ F-B/One word on Python Pandas and Matplotlib.

PHYSICAL EDUCATION

1.Complete Practical File work as per the instructions given in the class .Which Include the following topics.

(A) Fitness test administration.(SAI Khelo India test)

(B) Write Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

(C) Any one IOA recognized Sport/Game of your choice. (Labelled Diagram of field & Equipment) also, Mention its Rules,Terminologies & Equipment.

2.: Prepare 15-15 MCQ questions from unit one and unit two.

3. Make a knock - Out fixture of 25 & 28 teams.

4. Make a league fixture of 7 & 10 teams by Cyclic & Tabular Method

5. Explain the causes for the low participation of Women in sports in INDIA.

PAINTING

1. Complete 15 paintings for your portfolio.
2. Write and revise Origin and development of Pahari school, Deccan School and Main features of Pahari school and Deccan School.
3. Prepare 5 Canvas Boards painting of size :30/40cm as sessional work.
4. Prepare 50 MCQ'S from Modern Trends in Indian Art.