DEHRADUN PUBLIC SCHOOL
HOLIDAY HOMEWORK 2023-24
CLASS-XI

(The summer holiday home work is also available on school website i.e.www.ddps.in)
To be ready for tomorrow's opportunities, do your homework today.
Learn, refine your skills and focus on your growth.

Dear Students,

Summer has arrived and brought with it you're amazing and fun filled holidays. Summer break is a well-deserved opportunity to relax and unwind by indulging in various activities. Your holiday homework has been specially designed for you to be creative, innovative and imaginative while completing your tasks. It will also enable you to recapitulate what was taught in the classrooms .We hope you will play, learn, research, analyze, experiment, imagine, think, value, appreciate and above all enjoy during your holidays. Wishing you happy holidays!

General Instructions:

❖ **Do your holiday homework in your respective subject notebooks.**
❖ **Mention date and day when you do your work.**
❖ **Use your creativity and imagination wherever required.**
❖ **Submit your holiday homework when the school re-opens.**
❖ **Use the holidays to thoroughly prepare topics given in August Periodic Test Syllabus.**

English Core (301)

1. Read any one English newspaper daily and cut out the classified ads (2 each) from it and paste it in your English notebook.
- For sale
- Situation wanted
- Lost and found
- Situation vacant

2. Make a Power Point Presentation of Chapter- We're Not Afraid to Die... If We Can Be Together including all the incidents, characters and dates mentioned in the chapter. (About 10-12 slides).

3. Watch Ted talks related to the Elderly People and express your opinion on the same in about 120-150 words in your English notebook.

4. Write an article on The Impact of Lockdown in your locality on account of the outbreak of COVID-19 in about 120-150 words in your English notebook.

PROJECT WORK

• The Project can be inter-disciplinary in theme. The ideas/issues highlighted in the apters/poems/drama given in the prescribed books can also be developed in the form of a project.

• Choose a topic to do your research/interview.
  E.g., A student can choose the topic: 'Evolving Food Tastes in my Neighbourhood' or "Corona pandemic and the fallout on families." Then conduct interviews with a few immediate neighbours on the topic. For an interview, frame questions based on the preliminary research/background. Then write an essay/write up/ report etc. up to 1000 words on your research and submit it.

❖ **Suggestions for Project Work:**
  i. Interview-based Research.
  ii. Listen to podcasts/interviews/radios or a TV documentary.
  iii. Students create their own Video/Audio.
  iv. Write, direct and present a theatrical production/One act play.

❖ **Project-Portfolio/Project Report**
  The Project-Portfolio/Project Report is a compilation of the work that the students produce during the process of working on their ALS Project. The Project-Portfolio may include the following:

- Cover page, with the title of the project, school details/details of students.
- Statement of purpose/objectives/goals.
- Certificate of completion under the guidance of the teacher.
- Action plan for the completion of assigned tasks.
- Materials such as scripts for the theatre/role play, questionnaires for interviews, written assignments, essays, reports, and other material evidence of learning progress and academic accomplishment.
- The 800-1000 words Essay/Script/Report.
- Student/group reflections. If possible, photographs that capture the positive learning experiences of the student(s).
- List of resources/bibliography.

PHYSICS (042)

Multiple choice questions:

Q1. Name the physical quantity represented by the dimensional formula $[ML^{-3}T^0]$.
    a. Specific heat   b. Linear mass density   c. Impulse   d. Density

Q2. What will the nature of velocity- time graph for a uniform motion?
    a. A straight line parallel to time axis.
    b. A straight line parallel to velocity axis.
    c. A straight line inclined to time axis.
    d. An irregular curve

ASSERTION-REASON BASED QUESTIONS:

Q3. Two statements are given- one labeled Assertion (A) and the other labeled Reason(R)
    Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.
    a. Both A and R are true and R is the correct explanation of A.
    b. Both A and R are true and R is NOT the correct explanation of A.
    c. A is true but R is false.
    d. A is false and R is also false.
    ASSERTION: An object can have constant speed but variable velocity.
    REASON: Speed is a scalar quantity but velocity is a vector quantity.

Q4. Two statements are given- one labeled Assertion (A) and the other labeled Reason(R).
    Select the correct answer to these questions from the codes(a), (b), (c) and (d) as given below.
    a. Both A and R are true and R is the correct explanation of A.
    b. Both A and R are true and R is NOT the correct explanation of A.
    c. A is true but R is false.
    d. A is false and R is also false.
    ASSERTION: Displacement of a body may be zero when distance travelled by it is not zero.
    REASON: The displacement is the longest distance between initial and final position.

Q5. Convert 1 joule into ergs.

Q6. Assuming that the mass 'm' of the largest stone that can be measured by a flowing river depends on velocity 'v' of water, its density 'd' and acceleration due to gravity 'g'. Show that the mass varies directly as the sixth power of velocity of flow.

Q7. The escape velocity from the surface of the earth is given by $v=\sqrt{2GM/R}$, where M is the mass, R is the radius of the earth. Check the correctness of the given formulae.

Q8. Write the dimension of a and b in the relation $P=\frac{b-x^2}{at}$ where P is power, x is distance and t is time.

Q9. The position of an object moving along x-axis in given by $x=a+bt^2$, where $a=8.5m$ and $b=2.5\ m/s^2$ and t is measured in seconds. What is the velocity at $t = 0$ sec and $t = 2$ sec? What is the average velocity between $t=2$ sec and $t = 4$ sec.

Q10. How did Physics help in eradication of COVID-19?

Q11. Prepare an investigatory project on one of the topic given below:
    i. To study various factors on which the internal resistance/EMF of a cell depends.
    ii. To find the refractive indices of a. water b. oil (transparent) using a plane mirror, an equi convex

lens (made from a glass of known refractive index) and an adjustable object needle.

   iii. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.

   iv. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

   v. To investigate the relation between the ratio of :
     a. output and input voltage and
     b. Number of turns in the secondary coil and primary coil of a self-designed transformer.

CHEMISTRY (043)

Multiple choice questions:

Q1. The number of moles present in 6gms of carbon is:
   a. 2   b. 0.5   c. 5   d.1

Q2. A pure substance which contains only one type of atom is called
   a. an element   b. a compound   c. a solid   d. a liquid

ASSERTION-REASON BASED QUESTIONS:

Given below are the questions (3 and 4) labeled as Assertion (A) and Reason (R) . Select the most appropriate answer from the options given below:
   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.

Q3. Assertion: The number of O atoms in 16 g of oxygen and 16 g of ozone is same.
   Reason: Each of the species represents 1 g-atom of oxygen.

Q4. Assertion: The empirical mass of ethene is half of its molecular mass.
   Reason: The empirical formula represents the simplest whole number ratio of various atoms present in a compound.

Q5. What is AZT? To which use is it being put?

Q6. The density of 3 molal solution of NaOH is 1.10 g/ml. Calculate the molarity of the solution?

Q7. 3gm of H_2 reacts with 29 gm of O_2 to form H_2O.
   i. Which is limiting reactant?
   ii. Calculate the maximum amount of H_2O that can be formed.
   iii. Calculate the amount of the reactant left unreacted.

Q8. Calculate the mass percentage of iron, sulphur and oxygen in $Fe_2(SO_4)_3$.

Q9. Calculate the number of molecules present in 0.5 moles of CO_2.

Q10. Prepare an investigatory project on one of the following topics: -
   i. Study of the presence of oxalate ions in guava fruit at different stages of ripening.
   ii. Study the quantity of casein present in different samples of milk.
   iii. Preparation of soybean milk and its comparison with natural milk with respect to curd formation, the effect of temperature, etc.
   iv. Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)
   v. Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
   vi. Comparative study of the rate of fermentation of the following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
   vii. Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
   viii. Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

NOTE: Any other investigatory project, which is based on CBSE Curriculum (Class – XII)

Q11. How is the COVID-19 pandemic impacting the chemical industry?

BIOLOGY (O44)

Multiple choice questions:

Q1. Name the scientist who gives the nomenclature *Homo Sapiens* to humans.

   a. Darwin   b. Mendel   c. Aristotle   d. Linnaeus

Q2. Lichens are composite organisms containing alga and-

   a. Fungus   b. Bacterium   c. Moss   d. Protozoan

ASSERTION-REASON BASED QUESTIONS:

Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

   a. Both A and R are true and R is the correct explanation of A.

   b. Both A and R are true and R is not the correct explanation of A.

   c. A is true but R is false.

   d. A is False but R is true.

Q3. Assertion: Complexity of classification increases from Kingdom to species.

   Reason: Common characters increase from kingdom to species.

Q4. Assertion: The leaves of mosses are not true leaves.

   Reason: The leaves of mosses do not have axial buds.

Q5. How is five kingdom classifications advantageous over two kingdom classification?

Q6. What are the advantages of seeds over spores as means of reproduction?

Q7. In which group of plants will you look for mycorrhiza and coralloid roots? Explain what does these terms mean.

Q8. Give an account of sexual reproduction and economic importance of Pteridophytes.

Q9. Draw a well labeled diagram of bacteriophage.

Q10. Why are living organisms classified? What role does it play in Research and Development?

Q11. INVESTIGATORY PROJECT

   Prepare a **PROJECT FILE** which should be handwritten consisting of 25-30 A4 size sheets. The project report should be prepared in the following sequence-

- Cover page should include the title of the Project, student information, school and year.
- Certificate
- Acknowledgement
- Index
- Project Content
- Case study
- Bibliography

❖ **List of Suggested Project Topics:**

   Students can select any one topic from the following-

- AIDS
- DNA fingerprinting
- Drugs and Alcohol
- Cancer
- Malaria
- Test Tube Baby Programme
- Biogas Plant
- Sewage treatment
- Chromosomal Disorders
- Mendelian Disorders
- Pedigree analysis
- Allergy
- Dengue
- Chikungunya

• Corona virus/Covid-19.

MATHEMATICS (041)

Multiple choice questions:

Q1. Let n (A) = m, and n (B) = n. Then the total number of relations that can be defined from A to B is

    a. $2^{m \times n}$ b. $2^{(m \times n)-1}$ c. 2^n d. 2^m

Q2. Convert i^{-39} in a+ib

    a. 0   b. i+0   c. -i   d. 0+0i

ASSERTION-REASON BASED QUESTIONS:

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

    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.

Q3. ASSERTION (A): Domain of modulus function is R_+

    REASON(R): Modulus function is f(x)=|x|

Q4. ASSERTION (A): Modulus of z= 3-4i is $\sqrt{9-16}$

    REASON(R): Modulus of z= x-i y is $\sqrt{x^2+y^2}$

Q5. Let A = {1, 2, 3, 4, 6}. Let R be the relation on A defined by R={(a, b): a , b ∈A, a is exactly divisible by 6}.

    i. Write R in roster form

    ii. Find the domain of R

Q6. Evaluate: $[-i+2]^3$.

Q7. If A = {1, 2, 3}, find the possible subsets of A.

Q8. If $(x+iy)^{\frac{1}{3}}$ = a + ib, where x, y, a, b ∈ R, show that $\frac{x}{a} - \frac{y}{b} = -2(a^2+b^2)$

Q9. If a = cos θ + i sinθ, find the value of $\frac{1+a}{1-a}$.

Q10. Is g = {(1, 1), (2, 3), (3, 5), (4, 7)} a function? Justify. If this is described by the relation, g (x) = αx + β, then what values should be assigned to α and β?

Q11. Consider the two sets P = { s,m,h} and Q = { SARS CORONA VIRUS, MERS CORONA VIRUS, HCOV – NL 63 CORONA VIRUS }. Define a relation R from P to Q by R = { (x,y) : x is the first letter of the name y, x ∈ P , y ∈ Q }.

    i. Depict this relation using an arrow diagram.

    ii. How many ordered pairs will form by P X Q?

ACTIVITY

OBJECTIVE

To find the number of subsets of a given set and verify that if a set has *n* number of elements, then the total number of subsets is 2^n.

MATERIAL REQUIRED

Paper, different coloured pencils.

METHOD OF CONSTRUCTION

1. Take the empty set (say) A_0 which has no element.

2. Take a set (say) A_1 which has one element (say) a_1.

3. Take a set (say) A_2 which has two elements (say) a_1 and a_2.

4. Take a set (say) A_3 which has three elements (say) a_1, a_2 and a_3.

DEMONSTRATION

1. Represent A_0 as in Fig. 1.1

   Here the possible subsets of A_0 is A_0 itself only, represented symbolically by ϕ. The number of subsets of A_0 is $1 = 2^0$.
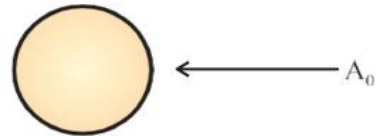
2. Represent A_1 as in Fig. 1.2. Here the subsets of A_1 are ϕ, $\{a_1\}$. The number of subsets of A_1 is $2 = 2^1$
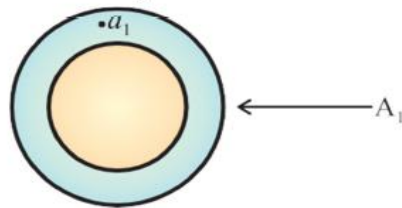
3. Represent A_2 as in Fig. 1.3

   Here the subsets of A_2 are ϕ, $\{a_1\}$, $\{a_2\}$, $\{a_1, a_2\}$. The number of subsets of A_2 is $4 = 2^2$.
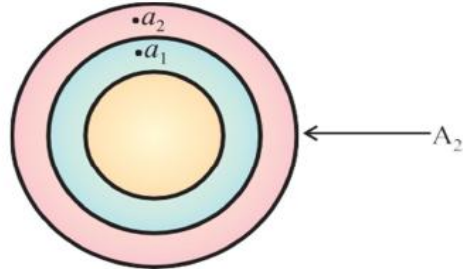
4. Represent A_3 as in Fig. 1.4

   Here the subsets of A_3 are ϕ, $\{a_1\}$, $\{a_2\}$, $\{a_3\}$, $\{a_1, a_2\}$, $\{a_2, a_3\}$, $\{a_3, a_1\}$ and $\{a_1, a_2, a_3\}$. The number of subsets of A_3 is $8 = 2^3$.
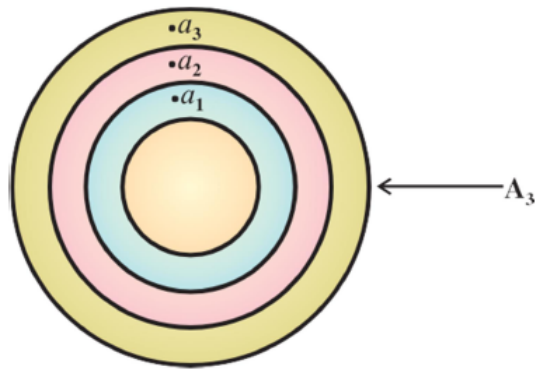
5. Continuing this way, the number of subsets of set A containing n elements $a_1, a_2, ..., a_n$ is 2^n.

Fig. 1.1

Fig. 1.2

Fig. 1.3

Fig. 1.4

OBSERVATION

1. The number of subsets of A_0 is _____ $= 2^{\square}$
2. The number of subsets of A_1 is _____ $= 2^{\square}$
3. The number of subsets of A_2 is _____ $= 2^{\square}$
4. The number of subsets of A_3 is _____ $= 2^{\square}$
5. The number of subsets of A_{10} is $= 2^{\square}$
6. The number of subsets of A_n is $= 2^{\square}$

APPLICATION

The activity can be used for calculating the number of subsets of a given set.

APPLIED MATHEMATICS(241)

Multiple choice questions:

Q1. The decimal number equivalent of $(110101)_2$

    a. 50   b. 52   c. 51   d. 53

Q2. If 7th and 13th term of an A.P. be 34 and 64 respectively, then its 18th term is:

    a. 87   b. 88   c. 89   d. 90

ASSERTION-REASON BASED QUESTIONS:

For questions 3 and 4, two statements are given – one labeled Assertion(A) and the other labelled Reason (R). Select the correct answer to these questions from the codes i, ii, iii and iv as given below:

  i. Both A and R are true and R is the correct explanation of the assertion.

  ii. Both A and R are true but R is not the correct explanation of the assertion.

  iii. A is true, but R is false.

  iv. A is false, but R is true.   .

Q3. Assertion (A): Sum of natural number from 1 to 100 is 5050.

    Reason (R): Sum of natural number is $\frac{n(n+1)}{2}$.

    a. i   b. ii   c. iii   d. iv

Q4. Assertion (A): If average of the 20 numbers is zero, then there can be at the most 19 positive number among them.

    Reason (R): The average of the first 20 natural numbers is 10.5.

    a. i   b. ii   c. iii   d. iv

Q5. If the average of five consecutive numbers is 48, then find the product of the least and the greatest Number.

Q6. A and B together can do a piece of work in 12 days; B and C together can do the same piece of work in 15 days; C and A together can do it in 20 days. In how many days the same piece of work will be finished, if A, B and C each works along?

Q7. Determine the ratio of the volume of a cube to that of a sphere which will exactly fit inside the cube.

Q8. In a group of 1000 people, there are 750 who can speak Hindi and 400 who can speak Bengali. How many can speak Hindi only? How many can speak Bengali? How many can speak both Hindi and Bengali?

Q9. If A = {1, 2, 3}, B = {2, 4, 5} and C = {2, 5}, write (A – C) x (B – C).

Q10. If the continued product of three numbers in G.P. is 216 and sum of their products in pairs is 156, find the numbers.

Q11. Find the average number of people infected by covid-19 in six different states.

    The data of infected people in six different states is given below:

States	Delhi	Rajasthan	Madhya Pradesh	Uttar Pradesh	Punjab	Telangana
Number of infected people	8895	4727	4595	4057	1935	1454

Project Work

Prepare a **PROJECT FILE** on any one topic.

List of Suggested projects (Class XI /XII)

i. Use of prime numbers in coding and decoding of messages.

ii. Prime numbers and divisibility rules.

iii. Logarithms for financial calculations such as interest, present value, future value, profit/loss etc. with large values.

iv. The cardinality of a set and orders of infinity.

v. Comparing sets of Natural numbers, rational numbers, real numbers and others.

vi. Use of Venn diagram in solving practical problems.

vii. Fibonacci sequence: Its' history and presence in nature.

viii. Testing the validity of mathematical statements and framing truth tables.

ix. Investigating Graphs of functions for their properties.

x. Visit the census site of India.

http://www.censusindia.gov.in/Census_Data_2001/Census_Data_Online/Language/State ment3.htm Depict the information given there in a pictorial form

xi. Prepare a questionnaire to collect information about money spent by your friends in a month on activities like travelling, movies, recharging of the mobiles, etc. and draw interesting conclusions.

xii. Check out the local newspaper and cut out examples of information depicted by graphs. Draw your own conclusions from the graph and compare it with the analysis given in the report.

xiii. Analysis of population migration data – positive and negative influence on urbanization.

xiv. Each day newspaper tells us about the maximum temperature, minimum temperature, and humidity. Collect the data for a period of 30 days and represent it graphically. Compare it with the data available for the same time period for the previous year.

xv. Analysis of career graph of a cricketer (batting average for a batsman and bowling average for a bowler). Conclude the best year of his career. It may be extended for other players also – tennis, badminton, athlete.

xvi. Vehicle registration data – correlating with pollution and the number of accidents.

xvii. Visit a village near Delhi and collect data of various crops over the past few years from the farmers. Also, collect data about temperature variation and rain over the period for a particular crop. Try to find the effect of temperature and rain variations on various crops.

xviii. Choose any week of your ongoing semester. Collect data for the past 10 – 15 years for the amount of rainfall received in Delhi during that week. Predict the amount of rainfall for the current year.

xix. Weather prediction (prediction of monsoon from past data).

xx. Visit Kirana shops near your home and collect the data regarding the sales of certain. commodities over a month. Try to figure out the stock of a particular commodity which should be in the store in order to maximize the profit.

xxi. Stock price movement.

xxii. Risk assessments by insurance firms from data.

xxiii. Predicting stock market crash.

xxiv. Predicting the outcome of an election–exit polls.

xxv. Predicting mortality of infants.

ACCOUNTANCY(055)

❖**Activity**

1. Collection of source documents and show the effect of transactions with the help of source documents in an accounting equation.

2. Expenses, incomes and profit (loss), assets and liabilities are to be depicted using pie chart / bar diagram.

❖**Do the following questions in your subject notebook.**

Multiple choice questions:

Q1. Which of the following is not the limitation of accounting?

a. Based on accounting conventions

b. Evidence in Legal Matters

c. Incomplete Information

d. Omission of Qualitative Informations

Q2. Ghanshyam is a furniture dealer. Which one of the following will not be recorded in his books?

a. Purchase of Timber for Rs.50,000

b. Sofa set worth Rs. 40,000 taken to his home

c. Sale of household furniture for Rs. 5,000

d. Dining table of Rs.30,000 given to his friend as gift

ASSERTION-REASON BASED QUESTIONS:

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

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.

Q3. Assertion (A): The main objective of accounting is to maintain the records of the business transactions.

Reason (R): Accounting records all the transactions whether related to money or not.

Q4. Assertion (A): Transactions are recorded in the books of account on cash being received or paid.

Reason(R): When cash basis of accounting is followed, outstanding and prepaid expenses and income received in advance are not considered.

Q5.Case Based Questions:

Read the following case study and answer the following questions:

Olly and Robin are two friends graduated from a top college of the country. After the college, they decided to start a subscription service of fruits in the nearby cities. For obtaining high quality fruits, they made 5 years contracts with farmers in and around Karnataka. They also decided to purchase machinery for cleansing and quality check of the fruits. Two years down the line, they had built a strong brand and reputation. To leverage the same, the company decided to venture into other states as well as with the similar service line. They first expanded to Tamil Nadu and got great demand. While accounting, company usually booked a normal loss to account for spoiled fruits that they might get. Moreover, they charged depreciation on the machinery to ensure that expenses are distributed over the years. With all these good practices, after four more years of operations, the company attained a unicorn status.

i. Which AS will be applicable to evaluate the reputation and brand value of firm?

   a. AS-20   b. AS-30   c. AS-26   d. AS-2

ii. Which concept is highlighted in the fact that company made long-term contracts with the farmers?

   a. Going concern concept   b. Accrual concept   c. Consistency concept   d. Both a and b

iii. According to this concept, every transaction entered into by an enterprise has two aspects

   a. Cost concept   b. Dual concept.   c. Matching concept   d. Going Concern Concept

iv. Ind-AS are

   a. rule based accounting standards

   b. principle based accounting standards

   c. partially rule based and partially principle based accounting standards

   d. Concept base Accounting Standards

Q6. Explain internal users of accounting information and their needs.

Q7. Explain the Liabilities. What are the Non-Current and Current Liabilities?

Q8. Develop an Accounting Equation from the following transactions:

		Rs.
i.	Mohan commenced business with cash	50,000
ii.	Purchased goods for cash	30,000
iii.	Purchased goods on credit	20,000
iv.	Sold goods (costing Rs.10,000) for	12,000
v.	Bought furniture on credit	2,000

vi. Paid cash to a creditor	15,000
vii. Salary paid	1,000

Q9. A commenced his cloth business on 1st April, 2020 with a capital of Rs.30,000. On 31st March 2021, his assets were worth Rs. 50,000 and liabilities of Rs. 10,000. Find out his closing capital and profit earned during the year.

Q10. Give an example for each of the following type of transactions.
  i. Increase in one asset, decrease in another asset.
  ii. Decrease in asset, decrease in liability.
  iii. Decrease in liabilities, increase in owner's capital.
  iv. Increase in one liability, decrease in another liability.
  v. Increase in liabilities, decrease in owner's capital.

ECONOMICS (030)

❖**Activity**

Prepare a sample questionnaire of Consumer Eating Preferences/Consumer Awareness Amongst Household Articles/Mobile Phone Network Service Providers with at least 10 questions in it. Perform this survey with 10 different people and record the differences of preferences using statistical tools. Also add conclusion at the end of report.

Multiple choice questions:

Q1. Which data is collected by the Investigator himself?
  a. Primary   b. Secondary   c. Both a. and b.   d. Sample Data

Q2. A good questionnaire should not have:
  a. Minimum questions   b. concise   c. clear   d. Undesirable

ASSERTION-REASON BASED QUESTIONS:

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.
  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.

Q3. Assertion (A): Scarcity of resources is a major cause of all economic problems in a country.
  Reason (R): Human wants are unlimited while the resources have alternative uses as well.

Q4. Assertion (A): "What to produce", is first central problem of an economy.
  Reason (R): "What to produce", central problem related to selection of goods and services to be produce.

Q5. How is Statistics important for studying Economics?

Q6. Discuss the various factors which affect the size of sample.

Q7. Explain the properties of PPC.

Q8. Both micro economics and macro economics have same degree of aggregation. Defend or refute.

Q9. Production in an economy is below its potential due to unemployment. Government starts employment scheme. Explain effects on PPC.

Q10. Read the following text carefully and answer the given questions on the basis of the same and common understanding.

The variables which can be expressed in numerical terms are known as quantitative variables. For example, marks of students, number of literates in country, heights of people, etc. Variables which cannot be expressed in numerical terms are known as qualitative variables For example, honesty, beauty, intelligence, etc. Qualitative variables cannot be measured in figures as they are vague terms and we cannot make statistical analysis out of them. Qualitative expressions are not statistics unless they are assigned numerical equivalents. So, they can be ranked according to the quality of their attributes. For example, we may assign Rank No. 1 to the most intelligent, Rank 2 to the second best, and so on. The ranks may be used as numerical measurements for purposes of statistical analysis.
  i. Distinguish between quantitative and qualitative variables. Give two examples of each.

ii. "Statistics does not study qualitative phenomena", Defend or refute the statement with valid reason.

Q11. Explain impact of Covid-19 on Production possibility curve (PPC).

BUSINESS STUDIES(054)

❖**Activity**

During summer break visit to any Mall in the city with your parents and make a project report/observation report (consisting 10-12 pages) which must include :

➤ Number of floors, shops occupied and unoccupied
➤ Nature of shops, their ownership status
➤ Nature of goods dealt in; local brands, International brands
➤ Rented spaces, owned spaces
➤ Different types of promotional schemes
➤ Most visited shops
➤ Special attraction of the mall- Food court, gaming zone or cinema etc.
➤ Innovative facilities
➤ Parking facilities etc.

Student may add any other relevant information to their report and will submit after summer break.

Multiple choice questions:

Q1. Due to which characteristic of business, there is always a possibility of losses being incurred, despite the best efforts put into the business?
  a. Uncertainty of returns
  b. Production or procurement of goods and services
  c. Economic activity
  d. Profit sharing

Q2. Suppose the total outside liabilities of XYZ dry cleaner, a sole proprietorship firm, are Rs.80,000 at the time of dissolution, but its assets are Rs. 60,000 only. What will be the remedy in such situation?
  a. The owner will have to bring in Rs. 20,000 from his personal sources.
  b. The owner may have to sell her personal property to repay the firm's debts
  c. Both (a) and (b)
  d. Outside liabilities of Rs. 20,000 will remain unpaid.

ASSERTION-REASON BASED QUESTIONS:

Q3. Read the following statement carefully and choose the correct alternative.
   Statement I: Memorandum of Association defines the object for which the company is formed.
   Statement II: Articles of Association are rules of internal management of the company. They indicate how the objectives of the company are to be achieved.
  a. Both the statements are true.
  b. Both the statements are false.
  c. Statement I is true, Statement II is false.
  d. Statement II is true, Statement I is false.

Q4. Read the following statement carefully and choose the correct alternative:
  Statement I: The auxiliary to trade which provides vital information about goods and services to customers is called advertising.
  Statement II: Pure risk involves only the possibility of loss or no loss.
  a. Both the statements are true.
  b. Both the statements are false.
  c. Statement II is true, Statement I is false.
  d. Statement I is true, Statement II is false.

Q5. Explain in detail the classification of business organisation? Write in brief.

Q6. The auxiliaries to trade help to remove the various bottlenecks such as place, time, person, risk and exchange. Explain how?

Q7. 'Although earning profit cannot be the only objective of business, it's importance cannot be ignored.

'What are multiple objectives of business? Explain any other three objects. Also state why profit is important.

Q8. If registration is optional, why do partnership firms willingly go through this legal formality and get themselves registered? Explain.

Q9. Explain the difference between the cooperative organisation and company form of business.

Q10. A, B, C, D and E are partners in partnership firm. The firm has different types of partners. Mr. A has contributed capital and participates in the management of firm. He shares profits and losses and is liable to an unlimited extent to the creditors of the firm. Mr. B has contributed capital and shares its profits and losses. He also has unlimited liability but he does not take part in day to day activities of business. Association of Mr. C is not known to the general public but in all other respects he is like an active partner. Mr. D has allowed the firm to use his name as he enjoys good reputation among clients but he does not either contributes capital or take part in the management. Master 'E', 15 years of age is entitled to the benefits of partnership with mutual consent of all their members. He is not eligible to take part in management of firm and shares only profits and not losses of the firm.

    i. How many partners does the firm have?

    ii. Who is the active partner and what is the nature of his liability in the firm?

    iii. Who is the sleeping partner in the firm and what is the nature of his liability?

    iv. What kind of partner is Mr. C and what kind of liability does he have in the firm?

    v. How does the partnership relationship of Mr. C differ from Mr. D? How do they differ in their liability?

    vi. Is Master E, a legal partner? Can he be held liable for the liability of the firm?

Q11. Explain various effects of Covid-19 on Business environment.

INFORMATICS PRACTICES (065)

❖ **Project: PowerPoint presentation**

Task I: Prepare ppt which is based on the topic Computer System.

Task II: use at least 6 to 8 slides in ppt with different animation and transition effects.

Task III: Design a poster in Ms. Word on the slogan of COVID-19. (Use clipart in Ms. Word)

❖ **Do the following questions in your subject notebook.**

Multiple choice questions:

Q1. Arrange TB, KB, GB, MB in descending order of the memory units.

    a. TB > MB > GB > KB   b. MB> GB> TB > KB   c. TB > GB > MB > KB   d. KB > GB > MB > TB

Q2. The extension of the saved Python module is _____.

    a. .shell   b. .py   c. .script   d. .area

Q3. Which of the following symbols is used to create a single-line comment in Python?

    a. /   b. #   c. @   d. %

ASSERTION-REASON BASED QUESTIONS:

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

    a. Both A and R are true and R is the correct explanation for A.

    b. Both A and R are true and R is not the correct explanation for A.

    c. A is True but R is False.

    d. A is False but R is True.

Q4. ASSERTION (A): The compiler, interpreter, and assembler are language translators.

    REASON(R): Compiler is a program for converting instruction written in low – level assembly code into relocatable machine code.

Q5. ASSERTION (A): Python Interpreter or IDLE has two ways through which you can create and run Python scripts.

    REASON(R) :>>> is a Python prompt. You can find this in the interactive mode and script mode where you can start writing your Python statement and code.

Q6. What is the difference between Python interactive mode and script mode?

Q7. What are the rules to create an identifier?

Q8. How many types of string literals are supported by Python?

Q9. Write any two areas where Python is used extensively.

Q10. What are the securities threats involved when you throw away electronic gadgets that are non-functional?

PHYSICAL EDUCATION (048)

Multiple choice questions

Q1. The aim of physical education is to improve the physique by activities

    a. Political   b. Physical   c. Psychological   d. Economic

Q2. What is the main goal of physical education?

    a. physical development   b. Mental development   c. Social Development   d. all round development

Given below are the questions (15to18) labeled as Assertion (A) and Reason (R). Select the most appropriate answer from the options given below:

    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.

Q3.Assertion (A): Physical education is the development of built it qualities in the child through physical activities.

    Reason: Physical education helps achieve all round development.

Q4. Assertion (A): Training of mind is not possible by keeping the body separate.

    Reason (R): The body is the basis and the mind is its integral part.

Q5. Write a note on the teaching career in physical education.

Q6. Write a note on the medical career in physical education.

Q7. Write a short note on khelo india programme.

Q8. Write fact and objective of fit india programme.

Q9. Write benefits and paste pictures of following Asanas - i. Tadasna ii.Padmasana.

Q10. Prepare practical record files according to prescribed syllabus.

Q11. Write the importance of physical activity during the COVID-19 pandemic.

FASHION STUDIES (837)

❖**Project File/Portfolio**

Task I: Prepare a file of A3 size and cover it and decorate it beautifully.

Task II: Make a design using different lines.

Task III: Do research on any 2 renowned National and International Fashion designer and prepared Collage on each designer with their designs on A3 size sheet. DO NOT PLAGARIZE! Arrange them in your file.

Task IV: Develop any product (face mask, tie, gloves, socks, t-shirt etc.) using stencil printing or block printing.

Task V: Design a poster on "What kind of changes fashion field go through during Covid-19"?

❖**Do the following questions in your subject notebook.**

Multiple choice questions:

Q1. The pret label for Manish Arora is

    a. Fish Fry   b. Balance   c. Label

Q2. "I've never been about fashion and trends. I believe in design that has lasting integrity," quoted by

    a. Giorgio Armani   b. Ralph Lauren   c. Donna Karan

Q3. FMCG stands for-

    a. Fast Moving Consumer Goods   b. Fastly Move Consumer Goods

    c. Fast Moving Consumed Goods   d. Fastly Moving Consumer Goods

Q4. _____ is the process or product of deliberately arranging elements in a way that appeals to   the senses or emotions.

    a. Art   b. Design   c. Craft

Q5. Some recurring cycles called long-wave phenomenon, are reflective of styles that start gradually and sustain for a longer period of time until their popularity eventually decreases.

    a. Classic Trend Cycle   b. Standard Trend Cycle   c. Fad Cycle

Q6. Give some historical examples of fashion as a societal influence during –

    a. 1960's   b. 1980's   c. 1990's

Q7. What do you mean by movement of fashion?

Q8. What are the planned activities of a fashion industry?

Q9. What do you mean by Avant Garde fashion?

Q10. Differentiate between Art, Design and Craft.

POLITICAL SCIENCE (028)

Multiple Choice Questions:

Q1. Who appoints the Chief Election Commissioner of India?

    a. Parliament   b. President   c. Prime Minister   d. Chief Justice of India

Q2. _____ members are nominated by the President in the Rajya Sabha.

    a. 2   b. 12   c. 20   d. 16

Assertion Reason Questions:

Directions for Q.Nos. 3 and 4

In the questions given below, there are two statements marked as Assertion (A) and Reason (R).
Read these statements and choose one correct answer from the given options-

    a. Both A and R are true and R is the correct explanation of A

    b. Both A and R are true and R is not the correct explanation of A.

    c. A is true but R is false.

    d. A is false, but R is true..

Q3. Assertion (A): Political equality means "the equal access of everyone to the avenue of authority.

    Reason (R): An important feature of equality is that no individual or section of people is given special privileges in society.

Q4. Assertion (A): Government should establish health centres in large numbers and there the citizens should be told the rules of maintaining a sound health.

    Reason (R): Schools and colleges should be opened in large numbers and they should be given liberal financial aid by the state.

Very Short Answer Type Questions (Word Limit – 50 Words)

Q5. "The backward attitude and thoughts of the orthodox Indians about women before Independence". Justify the statement.

Q6. "A nation is constituted by belief". Explain the statement.

Short Answer Type Questions (Word Limit – 100 Words)

Q7. How is the Speaker of Lok Sabha elected? Describe the powers and functions of the Speaker.

Q8. What are the elements to make India a secular state and suggestions to strengthen secularism in India?

Long Answer Type Questions (Word Limit – 170 Words)

Q9. "The COVID-19 responses addresses the pillars and areas covered in WHO's Strategic Preparedness and responses Plan". Find out the eight pillars of response "COVID-19" Strategic Preparedness and responses Plan. Explain their actions also.

Project Work

Prepare a **PROJECT FILE** which should be handwritten consisting of 25-30 A4 size sheets.

The project file should be prepared in the following sequence-

- Cover page should include the title of the Project, student information, school and year.
- Certificate
- Acknowledgement
- Index
- Introduction of topic/title

- Statement of purpose/Need and objective of the study
- Hypothesis/Research question
- Review of literature
- Presentation of evidence
- Methodology
- Questionnaire
- Data collection
- Significance and relevance of the topic
- Challenges encountered while conducting the research
- Content analysis and its relevance in the current scenario
- Conclusion
- Limitation
- Bibliography
- Annexures and overall presentation
- Project must be made presentable with the help of images, graphs, pie-charts, diagrams etc.
- Different forms of Art must be included/may be integrated in the project work.

❖ **List of Suggested Topics:**
  Students can select anyone topic from the below mentioned topics-
- Constitution of India is a Living Document
- Part – III of the Indian Constitution deals with the Fundamental Rights
- Election System in India
- Relation between the two Houses of the Parliament
- Prime Minister is the Key-stone of the Cabinet arch
- Various writs which the Supreme Court can issue for the enforcement
- Indian Constitution is federal in form but unitary in spirit
- Status of Local Government in the Constitution
- Importance of Political Theory
- Liberty and equality are complementary to each other
- Concept of equality as a powerful ideal
- Various kinds of Justice
- Economic rights of a citizen
- The Right to freedom is actually a cluster of several rights
- Hindrances in the way of Good Citizenship
- The feeling of Nationalism
- Elements that make India a secular state
- Emergency powers of the Prime Minister
- Various stages through which the bill passes becoming an Act
- Constitutional provisions in India to promote secularism

Project Work	
Assessment Rubrics	**Marks**
• Introduction of topic/title • Statement of purpose/Need and objective of the study • Hypothesis/Research question • Review of literature • Presentation of evidence • Methodology • Questionnaire • Data collection	6
• Significance and relevance of the topic	

• Challenges encountered while conducting the research	5
• Content analysis and its relevance in the current scenario • Conclusion • Limitation • Bibliography • Annexures and over all presentation	5
External/Internal Viva based on the project	4
Total	20

SOCIOLOGY (039)

Multiple Choice Questions

Q1. What's the meaning of the term socius within the word sociology?
   a. Companion   b. Collection
   c. Herd   d. Consensus

Q2. _____ is the power of an individual to exercise a certain degree of influence on another individual.
   a. Authority   b. Law
   c. Legitimacy   d. Authority

Assertion Reason Questions
Directions for Q.Nos. 3 and 4
In the questions given below, there are two statements marked as Assertion (A) and Reason (R).
Read these statements and choose one correct answer from the given options-
   a. Both A and R are true and R is the correct explanation of A.
   b. Both A and R are true and R is not the correct explanation of A.
   c. A is true but R is false.
   d. A is false, but R is true.

Q3. Assertion (A): Social anthropology tended to study society in all their aspects as a whole.
   Reason (R): Sociologists study parts of a complex society like the bureaucracy, religion, caste or a process such as social mobility.

Q4. Assertion (A): Evolution is the name given to a kind of change that takes place slowly over a long period of time.
   Reason (R): This term was made famous by the natural scientist Charles Darwin, who proposed a theory of how living organisms evolve or change slowly over several centuries, by adapting themselves to natural circumstances.

Very Short Answer Type Questions (Word Limit- 50 words)
Q5. What is the view of Mills on sociological imagination in society?
Q6. How does technology bring about social change in a society.

Short Answer Type Questions (Word Limit- 100 words)
Q7. Describe the relationship between sociology and political science.
Q8. Contestation, crime and violence are always present in a social order. Elaborate.

Long Answer Type Questions (Word Limit- 170 words)
Q9. Covid-19 has hit the entire human race not only physically but socially and economically as well. " The economic and social disruption caused by the covid-19 has devastated the entire population". Elaborate.

Project Work
Prepare a **PROJECT FILE** which should be handwritten consisting of 25-30 A4 size sheets.
The project file should be prepared in the following sequence-
 • Cover page should include the title of the Project, student information school and year
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- Significance and relevance of the topic
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- Content analysis and its relevance in the current scenario
- Conclusion
- Limitation
- Bibliography
- Annexures and overall presentation
- Project must be made presentable with the help of images, graphs, pie-charts, diagrams etc.
- Different forms of Art must be included/may be integrated in the project work

List of Suggested Topics:
Students can select anyone topic from the below mentioned topics-
- Need for women empowerment in India
- Climate and its affect on society
- Joint family-is it eroding in India
- Impact of social media on our society
- Social in equality and Social exclusion
- Family and Kinship
- Globalisation and Mass Media
- Impact of Westernisation on people
- Significance of family planning in controlling population
- Domestic violence
- Crime and deliquency in and its affect on society
- Child marriage practice in India
- Impact of Industrialisation on people
- Is Marriage as an institution collapsing in India
- Cultural diversity in India
- Status of education in low income group indian society
- Gender inequality in workplace
- Role of Youth in contemplating gender
- Child Labour- a social pandemic
- Rural-Urban differences

Project Work	
Assessment Rubrics	**Marks**
• Introduction of topic/title • Statement of purpose/Need and objective of the study • Hypothesis/Research question • Review of literature • Presentation of evidence	5

• Methodology • Questionnaire • Data collection	
• Significance and relevance of the topic • Challenges encountered while conducting the research	5
• Content analysis and its relevance in the current scenario • Conclusion • Limitation • Bibliography • Annexures and overall presentation	5
External/Internal Viva based on the project	5
Total	20

(The summer holiday home work is also available on school website i.e.www.ddps.in)