



STEPHENS

INTERNATIONAL PUBLIC SCHOOL



Holidays' Homework

Session – 2023-24

Class : 12th

General Instructions:

- 1. Use assignment sheets to do all the written work.**
- 2. Use a separate file (use A4 sheets) for project and activity work.**
- 3. Make separate file for each subject.**
- 4. Do your work neatly and beautify it.**
- 5. Revise the syllabus taught in the class so far.**

Subject : English

Task – 1

- (A) On the eve of World Environment Day, your school has decided to have a face painting competition. Draft a notice in not more than 50 words for your school notice board giving necessary information. You are Nimita/Naresh the Head Boy/ Girl J M K International School Jharkhand.
- (B) Students leave their prestigious seats in IIT, IIM etc. and pursue high level courses abroad. Government spends a lot of money on these students and all this money goes waste when students opt for courses in foreign countries. Write an article on Brain Drain Among Youth in about 150 -200 words.

Task – 2

- (A) You are Sweety/Suresh of L.M. Jain School, Ajmer. As Secretary of your School Co-curricular Activities Club, you visited a slum area in your city where the people suffered a great loss of life and property in a massive fire. The students of your school rendered their services and material help to the victims. Write a report in 100-125 words for your school magazine.
- (B) Recently your school held a Seminar on Conservation of Water as a part of World Water Day celebrations. As the School Pupil Leader of Maryland School, Gurgaon, write a report in 100-125 words for a local daily. Sign as Pritham/Preeti.

Task – 3

- (A) Write a letter to the Editor of The Hindu on the fear that is spreading among people due to their anxiety over the widespread terrorism in the world. Give suggestions to curb such anti-social activities. You are Vikram/Varsha of 325 Lane 5 defence Colony Pathankot.

(B) You are Aman/Aditi studying in Bharat School, Lucknow. The road leading to your school is very congested and full of potholes. Students and parents are often caught in a traffic jam. In spite of several representations, the government has not done anything to improve the condition of the road. Write a letter to the Editor of The Times of India, drawing the attention of the government to this problem.

Task – 4

Read any one of the following books or any book of your choice and make a project. The project must be in the following order:

- General information about the book.
- Author's description.
- Main Character's description.
- Summary of the story.
- Moral / what you get from the book.

Suggestive list:-

1. Wings of Fire by APJ Abdul Kalam
2. Playing It My Way by Sachin Tendulkar
3. Here There and Everywhere by SudhaMurty
4. The Great Train Journey by Ruskin Bond
5. A Place Called Home by PreetiShenoy



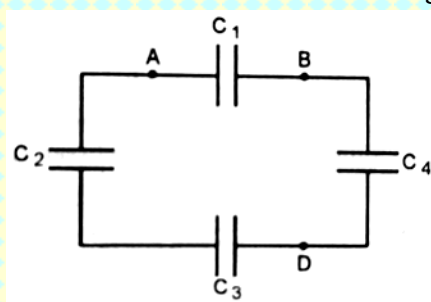
Subject :Physics

VERY SHORT ANSWER TYPE QUESTIONS:

- Q1. An uncharged insulated conductor A is brought near a charged insulated conductor B. What happens to charge and potential of B?
- Q2. A parallel plate capacitor with air between the plates has a capacitance of 8 pF. The separation between the plates is now reduced by half and the space between them is filled with a medium of dielectric constant 5. What will be the new capacitance?
- Q3. Why the emf of a cell measured by a potentiometer considered to be more accurate?
- Q4. Draw the diagram of a wheatstone bridge at its balanced condition. Also write the balanced condition of a Wheatstone bridge.
- Q5. We have three bulbs of 10 W, 20 W and 30 W. Which of them has the lowest resistance?

SHORT ANSWER TYPE QUESTIONS:

- Q6. Derive the relation between J, sigma and E.
- Q7. Four capacitors are connected as shown in the figure.



$C_1=3$ microfarad, $C_2=C_3=C_4=9$ microfarad.

- (a) Determine the equivalent capacitance between A and B.
- (b) If a 4 volt battery is connected between A and B, how much total charge will be stored on the capacitors?
- Q8. Draw the diagrams for stable and unstable equilibrium of an electric dipole in a uniform electric field.

LONG ANSWER TYPE QUESTIONS:

- Q9. Derive an expression for the equivalent emf of two cells connected in series.
- Q10. Derive an expression for the electric field intensity at a point on
- (a) Axial line of an electric dipole
- (b) Equatorial line of an electric dipole
- Q11. Derive an expression for the capacitance of a parallel plate capacitor with a dielectric slab in between the plates.

List of practicals to be written on practical files:

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.
3. To verify the laws of combination (series) of resistances using a metre bridge.
4. To find the value of v for different values of u in case of a concave mirror and to find the focal length.
5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
6. To determine refractive index of a glass slab using a travelling microscope.

Project allotted according to their roll numbers.

S.No.	Projects	(Roll No)
1.	Half wave rectifier	(1, 7, 13, 19, 25)
2.	Full wave rectifier	(2, 8, 14, 20, 26)
3.	Light dependent resistor (LDR)	(3, 9, 15, 21, 27)
4.	Diffraction of light	(4, 10, 16, 22, 28.....)
5.	Transformer	(5, 11, 17, 23)
6.	Lenz's law of EMI	(6, 12, 18, 24)

Subject : Chemistry

Project allotted according to their roll numbers.

Roll No. 1,6,11,16,21,26—Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder and pepper.

Roll No. 2,7,12,17,22, 27 — Study the quantity of casein present in different samples of milk.

Roll No 3,8,13,18,23,28— Study of the effect of Potassium Bisulphate as a food preservative under various conditions (temperature, concentration, time, etc.)

Roll No. 4,9,14,19,24 — Comparative study of the rate of fermentation of the following materials: wheat flour, gram flour, potato juice, carrot juice, etc.

Roll No 5,10,15,20,25 — Study of different ingredients and their concentration present in different samples of cold drink.

List of practicals to be written on practical files:

- Preparation of one lyophilic and one lyophobic colloidal sol
 - Lyophilic sol: starch solution
 - Lyophobic sol: Ferric hydroxide solution
- To prepare crystals of potash alum $[K_2SO_4, Al_2(SO_4) \cdot 24H_2O]$.
- Preparation of standard solution of Oxalic acid.
- Determination of one cation and one anion from given salt.
 - Ammonium Chloride (NH_4Cl)
 - Lead Nitrate $[Pb(NO_3)_2]$
 - Aluminum sulphate $Al_2(SO_4)_3$

Answer the following questions:

- Which will have greater molar conductivity and why?
 - Solution of 1 molKCl dissolved in 200 cc of the solution.
 - Solution of 1 molKCl dissolved in 500 cc of the solution.
- Solutions of two electrolytes A and B each having a concentration of 0.2 M have conductivities 2×10^{-2} and $4 \times 10^{-4} S cm^{-1}$ respectively. Which will offer greater resistance to the flow of current and why?
- Why alternating current is used in place of direct current in measuring the electrolytic conductance?
- Why is it necessary to use a salt bridge in a galvanic cell?
- Why does the conductivity of a solution decrease with dilution?

- Q6. The resistance of a conductivity cell containing 0.001 M KCl solution at 298 K is 1500 ohm. What is the cell constant if conductivity of 0.001 M KCl solution at 298 K is $0.146 \times 10^{-3} \text{ S cm}^{-1}$?
- Q7. If conductivity of N/50 KCl solution at 298 K is $0.002765 \text{ ohm}^{-1} \text{ cm}^{-1}$ and resistance of a cell containing this solution is 100 ohms, calculate the cell constant.
- Q8. Calculate the degree of dissociation (α) of acetic acid if its molar conductivity is $390.05 \text{ S cm}^2 \text{ mol}^{-1}$. Given $\lambda(\text{H}^+) = 349.6 \text{ S cm}^2 \text{ mol}^{-1}$ and $\lambda(\text{CH}_3\text{COO}^-) = 40.9 \text{ S cm}^2 \text{ mol}^{-1}$.

Subject :Biology

Section – A

A. Very short answer type questions:-

1. List three strategies that a bisexual chasmogamous flower can evolve to prevent self pollination.
2. What is polyembryony?
3. What is the role of cervix in human female reproductive system?
4. STDs can be considered as self-invited diseases. Comment.
5. Differentiate between a test cross and a back cross.

B. Short answer type questions:-

1. Why does the zygote begin to divide only after the division of primary endosperm cell?
2. Corpus – Luteum in pregnancy has a long life. However if fertilization doesn't take place, it remains active only for 10 – 12 days. Explain.
3. Briefly explain the IVF and ET. What are the conditions in which these methods are advised?

C. Long Answer Type Questions

1. Discuss the mode of action and advantages/disadvantages of normal contraceptives.
2. What is spermatogenesis? Give schematic representation of spermatogenesis.
3. Draw a longitudinal section of a post pollinated pistil showing entry of pollen tube into a mature embryo sac. Label it.

Section– B

List of practicals to be written on practical files:

- (i) Prepare a temporary mount to observe pollen germination.
- (ii) Study the plant population density by quadrat method.

- (iii) Study the plant population frequency by quadrat method.
- (iv) Prepare a temporary mount of onion root tip to study mitosis.
- (v) Isolate DNA from available plant material such as spinach, green pea seeds, papaya etc.

Subject : Mathematics

A. Very short answer type questions:

- Q1. A relation R defined on N which of the following is the reflexive relation?
- (a) $R = \{x, y\} : x > y : x, y \in \mathbb{N}\}$
 - (b) $R = \{x, y\} : x + y = 10 : x, y \in \mathbb{N}\}$
 - (c) $R = \{(x, y) : xy \text{ is the square no. } x, y \in \mathbb{N}\}$
 - (d) $R = \{(x, y) : x + 4y = 10; x, y \in \mathbb{N}\}$
- Q2. If the function $f(x) = \begin{cases} 3x-8 & \text{if } x \leq 5 \\ 2k & \text{if } x > 5 \end{cases}$ is continuous then the value of k is
- (a) $\frac{2}{7}$
 - (b) $\frac{7}{2}$
 - (c) $\frac{3}{7}$
 - (d) $\frac{4}{7}$
- Q3. The inverse of $\begin{bmatrix} -4 & 3 \\ 7 & -5 \end{bmatrix}$ is
- (a) $\begin{bmatrix} -5 & 3 \\ 7 & -4 \end{bmatrix}$
 - (b) $\begin{bmatrix} 5 & 3 \\ 7 & 4 \end{bmatrix}$
 - (c) $\begin{bmatrix} -5 & 7 \\ 3 & -4 \end{bmatrix}$
 - (d) $\begin{bmatrix} -5 & -3 \\ -7 & -4 \end{bmatrix}$
- Q4. If $\begin{vmatrix} 5 & 3 & -1 \\ -7 & x & -3 \\ 9 & 6 & -2 \end{vmatrix} = 0$ then the value of x is
- (a) 3
 - (b) 5
 - (c) 7
 - (d) 9
- Q5. If order of matrix A is 2×3 , of matrix B is 3×2 and of matrix C is 3×3 , then which one of the following is not defined?
- (a) $C(A+B')$
 - (b) $C(A+B)$
 - (c) BAC
 - (d) $CB+A'$
- Q6. If $A = \begin{bmatrix} 4 & 2 \\ -1 & 1 \end{bmatrix}$, then $(A - 2I)(A - 3I)$ is equal to
- (a) A
 - (b) I
 - (c) 5I
 - (d) 0
- Q7. If $A = \begin{bmatrix} \alpha & 2 \\ 2 & \alpha \end{bmatrix}$ and $|A^3| = 27$, then the value of α is
- (a) ± 1
 - (b) ± 2
 - (c) $\pm \sqrt{5}$
 - (d) $\pm \sqrt{7}$
- Q8. If $y = \tan^{-1}(e^{2x})$ then $\frac{dy}{dx}$ is equal to
- (a) $\frac{2e^{2x}}{1+e^{4x}}$
 - (b) $\frac{1}{1+e^{4x}}$
 - (c) $\frac{2}{e^{2x} + e^{-2x}}$
 - (d) $\frac{1}{e^{2x} - e^{-2x}}$
- Q9. The number of equivalence relations in the set $\{1, 2, 3\}$ containing $(1, 2)$ and $(2, 1)$ is
- (a) 0
 - (b) 1
 - (c) 2
 - (d) 3

Q10. The value of $\sin^{-1}\left(\cos\frac{13\pi}{5}\right)$ is

- (a) $\frac{-3\pi}{5}$ (b) $\frac{-\pi}{10}$ (c) $\frac{3\pi}{5}$ (d) $\frac{\pi}{10}$

Q11. If $y = e^{-x}$ then $\frac{d^2y}{dx^2}$ is equal to

- (a) $-y$ (b) y (c) x (d) $-x$

Q12. If $x = t^2 + 1$, $y = 2at$ then $\frac{d^2y}{dx^2}$ at $t = a$ is

- (a) $\frac{-1}{a}$ (b) $\frac{-1}{2a^2}$ (c) $\frac{1}{2a^2}$ (d) 0

Short answer type questions:-

Q13. Given $A = \begin{bmatrix} 2 & -3 \\ -4 & 7 \end{bmatrix}$ compute A^{-1} . Show that $2A^{-1} = 9I - A$.

Q14. If $x = a(2\theta - \sin 2\theta)$ and $y = a(1 - \cos 2\theta)$, find $\frac{dy}{dx}$ when $\theta = \frac{\pi}{3}$.

Q15. Express $A = \begin{bmatrix} 4 & -3 \\ 2 & -1 \end{bmatrix}$ as sum of symmetric and skew symmetric matrix.

Q16. Express $\tan^{-1}\left(\frac{\cos x}{1 - \sin x}\right)$ in the simplest form.

Q17. Find the value of p and q for which $f(x) = \begin{cases} \frac{1 - \sin^3 x}{3\cos^2 x} & \text{if } x < \frac{\pi}{2} \\ P & \text{if } x = \frac{\pi}{2} \\ \frac{q(1 - \sin x)}{(\pi - 2x)^2} & \text{if } x > \frac{\pi}{2} \end{cases}$ is continuous at $x = \frac{\pi}{2}$.

Long answer type questions:-

Q18. Show that function $f : (-\infty, 0) \rightarrow (-1, 0)$ defined by $f(x) = \frac{x}{1 + |x|}$, $x \in (-\infty, 0)$ is one-one and onto.

Q19. Show that the R in the set $A = \{1, 2, 3, 4, 5, 6\}$ given by $R = \{(a, b) : |a - b| \text{ is divisible by } 2\}$ is an equivalence relation.

Q20. Solve the following system of equations by matrix method.

$$\begin{aligned} x - y + 2z &= 7 \\ 2x - y + 3z &= 12 \\ 3x + 2y - z &= 5 \end{aligned}$$

Q21. If $\sin y = x \sin(a + y)$, prove that $\frac{dy}{dx} = \frac{\sin^2(a + y)}{\sin a}$

Q22. If $(\sin x)^y = x + y$, find $\frac{dy}{dx}$.

Q23. If $y = (\sec^{-1}x)^2$, $x > 0$ show that $x^2(x^2 - 1)\frac{d^2y}{dx^2} + (2x^3 - x)\frac{dy}{dx} - 2 = 0$.

Q24. If $A = \begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 3 \\ 1 & -2 & 1 \end{bmatrix}$, find A^{-1} . Hence solve the following system of equations

$$x + y + z = 6$$

$$y + 3z = 11$$

$$x - 2y + z = 0$$

Q25. If $y = (\sin^{-1}x)^2$, prove that $(1 - x^2)\frac{d^2y}{dx^2} - \frac{xdy}{dx} - 2 = 0$

Q26. If $x^y - y^x = a^b$, find $\frac{dy}{dx}$.

Q27. If $\log(x^2 + y^2) = 2\tan^{-1}\left(\frac{x}{y}\right)$. Show that $\frac{dy}{dx} = \frac{x+y}{x-y}$.

Lab Activities

1. To verify that the relation R in the set of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence.
2. To demonstrate a function which is not one-one but is onto.
3. To demonstrate a function is one-one but not onto.
4. To draw the graph of $\sin^{-1}x$ using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$)
5. To sketch the graph of a^x and $\log a^x$ mirror images of each other.
6. To find analytically the limit of a function $f(x)$ at $x = C$ and also to check continuity of the function at that point.



Subject :Accountancy

Project work

1. One specific project based on financial statement analysis of a company covering any two aspects from the following.
 - (i) Accounting Ratios
 - (ii) Segment Reports
 - (iii) Cash flow statements
 - (iv) Comparative and Common size financial statements.
2. Do Practical problems from scanner (Related topics that are done in the class)

Subject :Business Studies

A. Prepare a project on Marketing.

B. Do the following questions:-

1. The marketing manager of Alpha Ltd. fixed the target for all sales executives and gave them all the possible authority to achieve it. They were asked to submit to him their performance report at the end of the month. All of them did the same. On the receipt of report the expected and actual results of sales executives were compared, on this basis future course of action was decided. The sales executive also wrote in their report, the expectations of the customers from the company. The majority of them had written that they wanted the company to cooperate in the construction of dharamshala, going on in the city. The marketing manager placed this demand before the Board of Directors. This was happily accepted.
Identify the functions of management highlighted in above para by quoting relevant lines.
2. The management of Amaira Ltd. strongly believes that the members of the organisation should work toward fulfilling the common organizational goals. This requires team work and integration of efforts of all individuals, departments and specialists. This is because all the individuals and departments depend on each other for information and resources to perform their respective activities. Manager needs to reconcile differences in approach, timing, efforts and interest. At the same time, it should enable all its members to grow and develop. Thus, there is a need to harmonise individual goals and organizational goals.
 - (i) State the concept of management discussed above.
 - (ii) State any three features of the concept identified in above para.
3. Hema is one of the most successful managers of her company, 'Kobe Ltd'. She uses her creativity and initiative in handing challenging situations at work. The knowledge gained by her during her student days at a renowned management institute as well as through her observation and experience over the years is applied by Hema in a skillful manner in the

context of the realities of a given situation. She often reads books and other literature in various fields of management to keep her knowledge updated.

- (i) An aspect of the nature of management is being highlighted in the above description. Identify the aspect.
 - (ii) Explain any three features of the aspect identified in part (i).
4. 'Aapka Vidyalaya' believes in holistic development of students and encourages team building through a mix of curricular, co-curricular and sports activities. On its founders day a stage performance had to be put up. A committee of ten prefects was constituted to plan different aspects of the function. They all decided to use recycled paper for decoration. There was a spirit of unity and harmony and all members supported each other. With mutual trust and belongingness the programme was systematically planned and executed. Kartik, one of the prefects realized that unknowingly the group had applied one of the principles of management while planning and executing the programme. He was so inspired by the success of the function that he asked his father to apply the same principle in his business. His father replied that he was already using this principle.
- (a) Identify the principle of management applied for the success of the programme.
 - (b) State any two features of management highlighted in the above para.
5. Damini D'souza took over the reins of 'Kinsa Retail' as its Managing Director in India. Kinsa Retail with its headquarters at Japan has been in retail business for the last 40 years. It has regional offices in many countries with each regional office taking care of the shops in that particular region. As it is a large organization, the regional officers have been given the powers to decide and spend funds sanctioned to them by the headquarters for the welfare of the customers of their region. Kinsa Retail wants the highest possible standards of ethical conduct being followed for which a code of conduct is in place for putting values into practice. All employees as well as Board members are required to act in accordance with the highest standards of personal and professional integrity when acting on behalf of the company. Non-compliance involves a heavy penalty including termination of employment.
- State two principles of general management being followed by Kinsa Retail.
6. Karan Nath took over 'D' north Motor Company' from his ailing father three months ago. In the past the company was not performing well. Karan was determined to improve the company's performance. He observed that the methods of production as well as selection of employees in the company were not scientific.
- He believed that there was only one best method to maximize efficiency. He also felt that once the method is developed, the workers of the company should be trained to learn that 'best method'. He asked the Production Manager to develop the best method and carry out the necessary training. The Production Manager developed this method using several parameters right from deciding the sequence of operations, place for men, machines and raw materials till the delivery of the product to the customers. This method was implemented throughout the organization. It helped in increasing the output, improving the quality and reducing the cost and wastage.

Identify and explain the principles and the technique of scientific management followed by the Production Manager in the above case.

7. Beni, after completing her MBA, took up a job with a multinational company named 'Fortio'. The company was paying good salary and perks to its employees. The wages were within the paying capacity of the company that provided the employees a reasonable standard of living. The company also had a good work-culture and the behaviour of superiors was very good towards their subordinates. Beni was very happy in this organization, but due to long working hours she did not have time to cook her meals. She had to depend on outside food, which was deteriorating her health. She observed that this problem was faced by many of her colleagues, not only in her company but also in many other companies. This was because of increase in the number of working women and non-availability of hygienic home-cooked food. She identified this as a great opportunity and decided to give up her job to supply packaged home-cooked food to office goers at a reasonable price. At the end of the day she was also distributing the left-over food in the nearby night-shelters.
 - (a) State the dimension of business environment being discussed above.
 - (b) State the principle of management being followed by 'Fortio'.

8. 'Accent Electronic Ltd.' was operating its business in Malaysia. The company started exporting its products to India when the Prime Minister announced relaxation in import duties on electronic items. The company appointed retailers in India who had direct online links with the suppliers to replenish stocks when needed. Identify and explain the dimensions of business environment discussed in the above case.

9. After completing her studies in product design, Sarita wishes to start her own business to design products to cater to the mobility and communication requirements of persons with special needs. She told her friend that she wanted to focus on supplying high-quality products at affordable prices. The Unique Selling Proposition (USP) of the products would be sensitivity to the challenges and needs of the differently abled people. She wants to employ only differently abled persons in her factory and sales offices across the country. This decision of Sarita provide the base for interpreting her strategy. This also defines the broad parameters within which the company may recruit the persons. Sarita has also to decide about the exact manner and the chronological order of how the selection of the differently abled applicants will be done. In the above lines, Sarita is discussing about one of the functions of management. This function has several types. Identify and explain the Types Sarita is discussing in the above lines.

10. The production manger of a company received the complaint that the quality of the goods was not good. After investigation, it came to light that the machines had become very old. That is why, they were unable to achieve standardized quality. The production manager developed several options by way of solution to this problem. Example, getting the machines repaired, purchasing new local machines, purchasing new imported machines, if possible taking machines on rent, etc. The CEO of the company wanted the list of options to be smaller, so that a thorough study could be made for them. In order to make the list

of optional ways smaller, he decided to give up all those options which required the investment of more than ₹10crores.

- (a) Identify the concept described in the paragraph given above.
- (b) What do you understand from the fact of company fixing the maximum investment limit on options?

Subject :Economics

Answer the following questions:-

- Q1. How does human capital formation improve quality of life?
- Q2. 'School dropouts are giving way to child labour.' Discuss how this is a loss to human capital?
- Q3. Is rural banking successful in India? What are the difficulties?
- Q4. How can IT help achieve the target of sustainable development and food security?

Project work

(Choose any one from the following topics)

- Micro and Small Scale Industries
- Contemporary Employment situation in India
- Goods and Services Tax Act and its Impact on GDP
- Disinvestment policy of the government
- Health Expenditure (of any state)
- Human Development Index
- Self-help group
- Inclusive Growth Strategy
- Trends in Credit availability in India
- Monetary Policy Committee and its functions
- Government Budget & its Components
- Role of RBI in Control of Credit
- Trends in budgetary condition of India
- Exchange Rate determination – Methods and Technique
- Currency War – reasons and repercussions
- Livestock – Backbone of Rural India
- SarvaShikshaAbhiyan – Cost Ratio Benefit
- Alternate fuel – types and importance
- Golden Quadrilateral- Cost ratio benefit
- Minimum Support Prices
- Waste Management in India – Need of the hour
- Digital India- Step towards the future
- Relation between Stock Price Index and Economic Health of a Nation
- Minimum Wage Rate – Approach and Application
- Rain Water Harvesting – A solution to water crisis
- Vertical Farming – An alternate way
- Make in India – The way ahead

- Silk Route- Revival of the past
- Bumper Production- Boon or Bane for the farmer
- Rise of Concrete Jungle- Trend Analysis
- Aatmanirbhar Bharat

Subject : Political Science

A. Project Work.

Some suggested topics are:

- The importance of elections in a democratic country especially in India.
- Partition – Theory behind it and its legacy.
- One Party Dominance – Congress to BJP.
- Change in India’s Foreign Policy.
- India’s relation with its neighbours – (Choose any one country)
- Emergency – Reasons and Consequences
- New centre of power -EU, ASEAN, SAARC (Choose Any one and explain.
- UN and its agencies.
- Environment – Sustainable development – Need of the hour.
- Globalisation – Economic, Political and Cultural Impact on Third World
- Choose Any other topic based on the syllabus.

General Instructions:

1. It should be a handwritten project on a A4 size sheet.
2. Project should be summed up in 12-15 pages.
3. It should be well researched and pictorial.
4. Title/ Cover page, acknowledgement, list of contents, Bibliography, headings and sub-headings are a must.

B. Read the newspaper daily especially the editorial page to update yourself regarding the current happenings.

C. Answer the following questions.

1. Write a note on the role and the limitations of SAARC as a forum for facilitating economic cooperation among the South Asian Countries.
2. What are the major differences between ASEAN and European Union as an alternative centres of power?
3. Explain Japan and South Korea as New centre of power.
4. Analyse India’s changing relationship with post-communist Russia.
5. Critically evaluate the difficulties involved in implementing the suggested reforms to reconstruct the UN.
6. Explain any four reasons as to why India should be given a permanent membership in the UN Security Council.
7. Differentiate between NITI Aayog and Planning Commission.
8. Discuss the consequences of the partition.
9. Explain the ideology of Congress party.
10. Differentiate between the first and second Five Year Plan.

Subject : History

A. Answer the following questions:-

- Q1. Describe the distinctive features of domestic architecture of Mohenjodaro?
- Q2. Describe the trade relations of the Harappans with West Asia?
- Q3. What do you know about the authors and period when Mahabharata was compiled? Explain.
- Q4. Buddha laid stress on Right of Conduct and value. In the light of above message, explain his teaching on life.

B. Project work:-

- (i) Buddha's path of Enlightenment
- (ii) Mahatma Gandhi – The Legendary Soul
- (iii) The process Behind Framing the Indian Constitution
- (iv) Mauryas the Empire Builders
- (v) To reconstruct the History of Vijayanagra through the Archaeology of Hampi
- (vi) Divine Apostle of Guru Nanak Dev

Note:- Students should prepare the project under the following headings.

- (i) Acknowledgment
- (ii) Index
- (iii) Cover page
- (iv) Project synopsis
- (v) Data / Statically / Map work
- (vi) Analysis explanation and interpretation.

Activity: Study the articles on Mahabharata by some Indian scholars. Prepare the topic for group discussion in the class after vacation.

Subject : Physical and Health Education

Learn the following topics:-

- ❖ Test for CWSN (any 4 items out of 27 items. One item from each component: Aerobic Function, Body Composition, Muscular strength & Endurance. Range of Motion or Flexibility)
- ❖ CWSN (Children with Special Needs - Divyang): Bocce/ Boccia, Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of your choice.
- ❖ Children with Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/ Game must be different from Test -Proficiency in Games and Sports.

Record File shall Include:

- ❖ Practical-1: Fitness tests administration. (SAI Khelo India Test)
- ❖ Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

- ❖ Practical-3: Anyone one IOA recognized Sport/Game of choice. Labelled diagram of Field & Equipment. Also mention its Rules, Terminologies & Skills.

Subject : Applied Arts

Make poster on the following topics:

1. Say no to war
2. No corruption
3. Yoga and healthy life
4. Advertisement (any two)

Project:- Make one drawing on canvas on any theme.

Subject : Hindustani Music

- Q1. Write down the notation of RaagaBhairav, Malkauns, Bhagaeshree in fullformation which its description, AarohAvroh, Pakad, Sthai, Antra andTaan.
- Q2. Write down the notation of RupakTaal,JhapTaal andDhamarTaal in Thah (single) andDugun (Double) speed or tempo.
- Q3. Do practice of performing of Taals on hand by showing Sam, Taali,Khali.
- Q4. Write down the structure andtuning of Taanpura with a diagram showing various parts of Taanpura.

Note:- All the work should be done on practical file or note book.

Subject : Computer Science

- **Submit the Project (in soft) that has been assigned in the class or anyone topic of your choice based on Management.**
 - **Do any 7 Program from 1 to 10. Program 11 to 15 are compulsory.**
1. Write a program that obtain a string from the user and display it in reverse order.
 2. Write a program to input a string and check if it is a palindrome or not using loop.
 3. Write a program to find the length of the string "journey" without using the len () function.
 4. Print all items of a list in reverse order by referring to their index number using the 'for' loop.
 5. Write a program to create an empty list and obtain the element from the user.
 6. Write a program to obtain a tuple from the user and display the element with highest value and its index.
 7. Write a program to display the dictionary items.

8. Write a Python program to combine two dictionary adding values for common keys. d1 = {'a':100,'b': 200, 'c':300} d2 = {'a':300, 'b':200, 'd':400} Sample output: {'a':400,'b':400,'d':400,'c': 300}
9. Write a Python script to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys. Sample Dictionary {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225}
10. Write a Python program to convert a string to a list.
11. Write a program to print Palindrome number from 1 to 100.
12. Write a program that copies one dictionary to another.
13. Write a function in Python to read a text file, Alpha.txt and displays those lines which begin with the word 'You'.
14. Write a function, vowelCount () in Python that counts and displays the number of vowels in the text file named Poem.txt.
15. Write a program to implement simple calculator using function

