



BISHOP SCOTT BOYS' SCHOOL

SUMMER VACATION ASSIGNMENT

10

Date of Submission

18-06-2026

Session: 2026–2027

Teacher's Note

Dear Parents,

Teachers and parents both play an equally important role in shaping a child's learning journey. At school, teachers guide, support, and nurture students by helping them understand concepts and develop essential skills. At home, parents observe, encourage, and reinforce these learnings, creating a balanced environment for growth. This strong partnership between school and home ensures that students feel supported, confident, and motivated in all aspects of their education.

Keeping this in mind, holiday homework has been thoughtfully designed to help students remain connected with their studies during the summer break. It provides an opportunity for children to revise what they have learned, apply their knowledge in practical ways, and reflect on their understanding. Through these activities, students can explore their creativity, strengthen their skills, and become more independent learners. With your continued support and encouragement, we hope this vacation will be both enjoyable and enriching for your child.



SUBJECT : ENGLISH

A Letter to God

1. What message does the story “A Letter to God” convey about faith and human values?
2. Do you think blind faith can sometimes lead to misunderstanding? Justify your answer.
3. Do you believe that humanity is still alive in today’s world? Support your answer.

Dust of Snow & Fire and Ice

1. What does *Fire and Ice* teach us about controlling emotions?
2. Why is it important to manage negative emotions like hatred?
3. How can we apply the message of positivity from *Dust of Snow* in daily life?

Nelson Mandela

1. What does the chapter teach us about forgiveness and reconciliation?
2. What can students learn from Mandela’s leadership qualities?
3. What role does education play in shaping a person’s character?

A Triumph of Surgery

1. What role does physical activity play in maintaining good health?
2. Do you think Mrs Pumphrey was right in her way of caring for Tricki? Why or why not?
3. How does the story highlight the importance of practical wisdom over emotional decisions?

A Thief’s Story

1. What is more valuable—money or character? Explain with reference to the story.
2. How can we apply the lesson of this story in our daily life?
3. What would you have done if you were in Hari Singh’s place? Explain.

PORTFOLIO TASKS

1. A Letter to God – Paragraph Question

Write an article (150–200 words) describing the challenges faced by farmers in Bihar due to unpredictable weather conditions such as floods and droughts. Discuss issues like crop failure, poverty, and lack of irrigation. Also, explain how faith, hope, and community support help them survive, and suggest possible solutions such as government schemes, awareness, and the use of technology.

2. Fire and Ice – Paragraph Question

Write an analytical paragraph (about 120 words) explaining how the ideas of ‘Fire’ (desire/greed) and ‘Ice’ (hatred/indifference) are relevant in real-life situations in Bihar or society. Discuss how greed leads to corruption or environmental damage and how hatred leads to conflict or division. Conclude by stating which emotion you think is more destructive and why.

3. Dust of Snow – Paragraph Question

Write a reflective paragraph (120–150 words) describing a small incident from your life (or from nature in Bihar) that changed your mood or perspective. Begin with a situation of sadness or stress, describe the simple moment or event, and explain how it brought a positive change in your thoughts.

4. A Triumph of Surgery – Paragraph Question

Write a diary-style paragraph (about 150 words) from the perspective of Tricki after recovery. Describe your life before treatment (overfeeding and laziness), your experience at the clinic, and the lessons learned about health and discipline. You may also relate this to how animals are cared for in rural Bihar.

5. Nelson Mandela – Paragraph Question

Write an essay (150–180 words) describing the struggle of Nelson Mandela against apartheid in South Africa. Explain what apartheid was and how it affected the lives of black people. Discuss Mandela’s role in achieving freedom and equality, including his sacrifices and leadership qualities. Also reflect on the importance of freedom, dignity, and equal rights in today’s society, and what lessons young people can learn from his life.

NB: Write your Summer Vacation Homework in the English-Homework Notebook using a blue ballpoint pen. Begin each task on a new page with a proper heading and date. Follow the correct format, maintain good handwriting, and use proper grammar. Keep your work clean, well-organized, and submit it on time.

SUBJECT : HINDI

1. कैप्टन कौन था? उसे कौन- सी बात आहत करती थी?
2. नेताजी का चश्मा पाठ में नगरपालिका की कार्य पद्धति पर व्यंग्य छिपा है, उसे अपने शब्दों में लिखिए।
3. नेताजी की मूर्ति लगाने के कार्य को सफल और सराहनीय प्रयास क्यों कहा गया है?
4. चश्मे वाला नेताजी से क्षमा क्यों माँगता था?
5. नेताजी का चश्मा पाठ का उद्देश्य स्पष्ट कीजिए।
6. नेताजी का चश्मा पाठ का संदेश क्या है?
7. सूरदास के पद के आधार पर गोपियों का योग- साधना के प्रति दृष्टिकोण स्पष्ट कीजिए।
8. गोपियों के अनुसार राजा का धर्म क्या होना चाहिए?
9. हारिल पक्षी की क्या विशेषता होती है?
10. गोपियों उद्धव की बातें सुनकर निराश क्यों हो गईं?
11. मोह और प्रेम में अंतर होता है। पाठ के आधार पर इस कथन के औचित्य पर प्रकाश डालें।
12. भगत की पुत्रवधू उन्हें अकेले क्यों नहीं छोड़ना चाहती थी?
13. गृहस्थ बालगोबिन भगत अपनी किन चारित्रिक विशेषताओं के कारण साधु कहलाते थे?
14. बालगोबिन भगत पतोहू के पुनर्विवाह के रूप में समाज की किस समस्या का समाधान प्रस्तुत करना चाहते हैं? स्पष्ट कीजिए।
15. बालगोबिन भगत की मृत्यु किस प्रकार हुई?

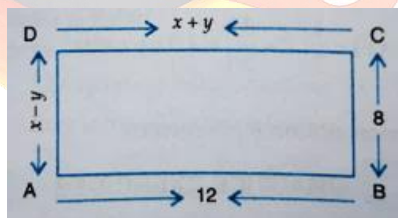
पोर्टफोलियो

सामान्य निर्देश:-

- सभी प्रश्नों को A4 शीट / बायो शीट में करें अथवा अतिरिक्त स्कूल नोटबुक में करें।
 - सभी प्रश्नों के उत्तर संक्षिप्त एवं सारगर्भित रूप से दें।
 - अच्छी लिखावट एवं शुद्ध वर्तनी तथा स्वच्छता का विशेष ध्यान रखें।
- 1) विहार की वेशभूषा, खान-पान एवं प्रमुख पर्व पर विस्तृत प्रकाश डालें।
 - 2) विहार के इतिहास एवं भौगोलिक स्थिति पर एक लेख तैयार करें।
 - 3) विहार की भाषा एवं बोली तथा उससे सम्बद्ध साहित्य पर प्रकाश डालें।
 - 4) भक्तिकालीन कवियों में प्रमुख कबीर दास के जीवन वृत्त पर प्रकाश डालें।
 - 5) शिवपूजन सहाय पर परियोजना कार्य तैयार करें।

SUBJECT : MATHEMATICS

1. If n is any natural number, then $6^n - 5^n$ always ends with –
(a) 1 (b) 3 (c) 5 (d) 7
2. If $(a \times 5)^n$ ends with the digit zero for every natural number n , then a is –
(a) any natural numbers (b) an even number
(c) an odd numbers (d) none of these
3. The greatest number which divides 281 and 1249, leaving remainder 5 and 7 respectively, is
(a) 23 (b) 276 (c) 138 (d) 69
4. HCF of two positive integers is always –
(a) a multiple of their LCM (b) a factor of their LCM
(c) divisible by their LCM (d) none of these
5. If α and β are zeros of polynomial $f(x) = x^2 - p(x+1) - c$, then $(\alpha + 1)(\beta + 1) =$
(a) $c-1$ (b) $1-c$ (c) c (d) $1+c$
6. If the zeros of the quadratic polynomial $ax^2 + bx + c$, $c \neq 0$ are equal, then –
(a) c and a have opposite signs (b) c and b have opposite signs
(c) c and a have same signs (d) c and b have same signs
7. If α and β are zeros of polynomial $f(x) = x^2 - (k+6)x + 2(2k-1)$ such that $\alpha + \beta = \frac{\alpha\beta}{2}$, then value of k is
(a) 6 (b) 2 (c) 14 (d) 7
8. A quadratic polynomial, the sum of whose zeros is -5 and their product is 6 is –
(a) $x^2 + 5x + 6$ (b) $x^2 - 5x + 6$ (c) $x^2 - 5x - 6$ (d) $-x^2 + 5x + 6$
9. If ABCD is a rectangle shown in fig. then –



- (a) $x=10, y=2$ (b) $x=1, y=8$ (c) $x=2, y=10$ (d) $x=20, y=0$
10. If the system of equations $2x+3y = 7$ and, $(a+b)x + (2a-b)y = 21$ has infinitely many solutions, then
(a) $a=1, b=5$ (b) $a=5, b=1$ (c) $a=-1, b=5$ (d) $a=5, b=-1$
11. If the system of equations $3x+y=1$ and $(2k-1)x + (k-1)y = 2k+1$ is inconsistent, then $k =$
(a) 1 (b) 0 (c) -1 (d) 2
12. The area of the triangle formed by the line $\frac{x}{a} + \frac{y}{b} = 1$ with the coordinate axes is –

- (a) ab (b) $2ab$ (c) $\frac{1}{2}ab$ (d) $\frac{1}{4}ab$

13. If $217x+131y = 913$ and $131x+217y=827$, then $x+y$ is equal to-

- (a) 5 (b) 6 (c) 7 (d) 8

14. Consider the equations as shown :

$$(x-a)(y-b)=(x-2a)(y-\frac{b}{2})$$

$$x(x+\frac{1}{2b}) + y(y+\frac{a}{2}) - 2xy = 5+(x-y)^2$$

On comparing the coefficients, a student says these pairs of equations is consistent.

Is he/she correct? Which of these explains why?

- (a) Yes;because they are parallel lines.
 (b) (b) Yes;because they are intersecting lines.
 (c) (c) No;because they are parallel lines.
 (d) (d) No;because they are intersecting lines.

15. The sum of the digits of a two digit number is 9. If 27 is subtracted from the number, its digits are interchanged. Which of these is the product of the digits of the number?

- (a) 8 (b) 14 (c) 18 (d) 20

QUESTIONS 16 TO 20 are Assertion-Reason based MCQs:

- (a) Both Assertion(A) and Reason(R) are true and Reason (R) is the correct explanation of Assertion(A)
 (b) Both Assertion(A) and Reason(R) are true and Reason (R) is not the correct explanation of Assertion(A).
 (c) Assertion(A) is true but Reason (R) is false.
 (d) Assertion(A) is false but Reason (R) is true.

16. Assertion(A) : If a pair of linear equations represent coincident lines, then the equations are consistent and have a unique solution.

Reason(R) : A pair of linear equations $a_1x+b_1y+c_1=0$ and $a_2x+b_2y+c_2=0$ represents coincident lines if $\frac{a_1}{b_2}=\frac{b_1}{b_2}=\frac{c_1}{c_2}$

17. Assertion(A) : If the graph of a polynomial touches the x-axis at only one point, then the polynomial can not be a quadratic polynomial.

Reason(R) : A polynomial of degree n ($n>1$) can have at most n real zeros.

18. Assertion(A) : Degree of a zero polynomial is not defined.

Reason(R) : Degree of a non-zero constant polynomial is zero.

19. Assertion(A) : The number 5^n cannot end with the digit 0, where n is a natural number.

Reason(R) : Prime factorization of 5 has only two factors 1 and 5.

20. Assertion(A) : If the product of two numbers is 5780 and their HCF is 17, then their LCM is 340.

Reason(R) : HCF is always a factor of LCM.

21. Prove that $\frac{2+\sqrt{3}}{5}$ is an irrational number, given that $\sqrt{3}$ is an irrational number.
22. Two tankers contain 850 litres and 680 litres of petrol respectively. Find the maximum capacity of a container which can measure the petrol of either tanker in exact number of times.
23. Quadratic polynomial $2x^2-3x+1$ has zeros as α and β . Now form a quadratic polynomial whose zeros are 3α and 3β .
24. If one of the zeros of $p(x)=6x^2+37x-(k-2)$ is reciprocal of the other, then find the value of k .
25. Explain whether the number $3 \times 5 \times 13 \times 46 + 23$ is a prime number or a composite number.
26. The age of the father is twice the sum of the ages of his two children. After 20 years, his age will be equal to the sum of ages of his children. Find the present age of the father.
27. The area of a rectangle reduces by 160 m^2 if its length is increased by 5 m and breadth is reduced by 4 m. However, if length is decreased by 10 m and breadth is increased by 2 m, then its area is decreased by 100 m^2 . Find the dimensions of the rectangle.

CASE BASED QUESTIONS

28. Two schools 'P' and 'Q' decided to award prizes to their students for two games of Hockey ₹ x per student and Cricket ₹ y per student. School 'P' decided to award a total of ₹ 9500 for the two games to 5 and 4 students respectively. While school 'Q' decided to award ₹ 7370 for the two games to 4 and 3 students respectively.

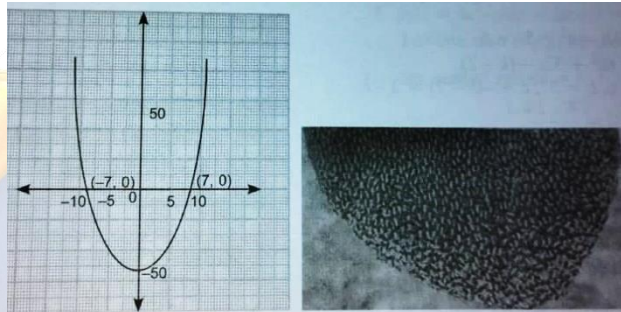


Based on the above information, answer the following questions.

- i) Represent the following information algebraically (in terms of x and y).

- ii) What is the prize amount for hockey?
- iii) What will be the total prize amount if there are 2 students each from two games?

29. While playing in a garden, Samaira saw a honey – comb and asked her mother what is that. Her mother replied that it’s a honeycomb made by honey bees to store honey. Also, she told her that the shape of the honeycomb formed is a mathematical structure. The mathematical representation of the honeycomb is shown in the graph.



Based on the above information, answer the following questions:

- i) How many zeroes are there for the polynomial represented by the graph given ?
- ii) Write the zeroes of the polynomial.
- iii) If the square of difference of the zeroes of the polynomial $x^2+px+45$ is 144, find the value of p.

30. February 14 is celebrated as International Book Giving Day and many countries in this world celebrate this day. Some people in India also started celebrating this day and donated the following number of books of various subjects to a public library. History = 96, Science=240, Mathematics= 336.

These books have to be arranged in minimum number of stacks such that each stack contains books of only one subject and the number of books on each stack is the same.

Based on the above information, answer the following questions:

- i) How many books are arranged in each stack?
- ii) How many stacks are used to arrange all the Mathematics books?
- iii) Determine the total number of stacks that will be used for arranging all the books.

MATHS PORTFOLIO

Graphical comparison between Madhya Pradesh and Bihar based on populations, literacy rate, land distribution, and religion.

- i) Make a bar graph for the populations of both states for the years 2023, 2024, 2025.

- ii) Draw the pie chart for the rate of literacy, land distribution and religion for both states.
Find the male, female, and children ratio for both state.

SUBJECT : BIOLOGY

1. Why it is necessary to separate oxygenated and deoxygenated blood in mammals and birds?
2. Bile juice does not have any digestive enzyme but still plays a significant role in the process of digestion. Justify the statement.
3. What would be the consequences of deficiency of haemoglobin in our bodies?
4. What will happen if mucus is not secreted by the gastric glands?
5. List in tabular form three differences between blood and lymph.
6. How do leaves of plants help in excretion?
7. (a) Why is nutrition necessary for the human body?
(b) What causes movement of food inside the alimentary canal?
(c) Why is the small intestine in herbivores longer than in carnivores?
8. Write the correct sequence of steps followed during journey of oxygen rich blood from lungs to various organ of human body.
9. What happens when the system of blood vessel develops leak?
10. List in tabular form two differences between pepsin and trypsin.
11. Define the terms:
Alveoli, Larynx, Epiglottis, Pleura, Adam's apple , Diaphragm, Holozoic nutrition,
Gastric glands, Dark reaction , Photolysis , bile pigment , Cardiac cycle , Systole, Diastole ,
Lymphocytes, Osmoregulation.
12. How are the lungs designed in human beings to maximize the area for exchange of gases?
13. In each of the following situations what happens to the rate of photosynthesis?
 - a) Cloudy days
 - b) No rainfall in the area
 - c) Good manuring in the area.
 - d) Stomata get blocked due to dust
14. What is translocation why it is essential for plants?
15. Name the correct substrates for the following enzymes:
 - (a) Trypsin
 - (b) Amylase
 - (c) Pepsin
 - (d) Lipase

PORTFOLIO

1. People living in high-altitude regions like Sikkim have certain physiological adaptations. Explain how the human body adjusts to low oxygen levels and name any long-term adaptations seen in such populations.
2. Draw a diagram of the human heart showing double circulation with explanation.
3. Draw a labelled diagram of the human respiratory system and explain the process of breathing and gas exchange.
Explain:

Organs: nose, trachea, lungs, alveoli

Exchange of gases in alveoli

Difference between inhalation & exhalation

NOTE: All the questions should be done in your bio notebook and Portfolio in the Bio sheets that should be assembled in a stick file.

SUBJECT : CHEMISTRY

- 1) What is Redox reaction? Explain with example.
- 2) Define corrosion and rancidity. How corrosion and rancidity can be prevented?
- 3) Explain electrolysis of water.
- 4) What are oxidising agent and reducing agents? Explain with example.
- 5) What is double displacement reaction?
- 6) The following reaction is an example of a:
$$4\text{NH}_3(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 4\text{NO}(\text{g}) + 6\text{H}_2\text{O}(\text{g})$$
 - (i) displacement reaction
 - (ii) combination reaction
 - (iii) redox reaction
 - (iv) neutralisation reaction

(a) (i) and (iv) (b) (ii) and (iii) (c) (i) and (iii) (d) (iii) and (iv)
- 7) Which of the following statements about the given reaction are correct?
$$3\text{Fe}(\text{s}) + 4\text{H}_2\text{O}(\text{g}) \rightarrow \text{Fe}_3\text{O}_4(\text{s}) + 4\text{H}_2(\text{g})$$
 - i) Iron metal is getting oxidised
 - ii) Water is getting reduced
 - iii) Water is acting as a reducing agent
 - iv) Water is acting as an oxidising agent

(a) (i) (ii) and (iii) (b) (iii) and (iv)
(c) (i) (ii) and (iv) (d) (ii) and (iv)
- 8) Three beakers labelled as A, B and C each containing 25 mL of water were taken. A small amount of NaOH, anhydrous CuSO₄ and NaCl were added to the beakers A, B and C, respectively. It was observed that there was an increase in the temperature of the solutions contained in beakers A and B, whereas, in the case of beaker C, the temperature of the solution falls. Which one of the following statement(s) is(are) correct?
 - (i) In beakers A and B, the exothermic process has occurred.
 - (ii) In beakers A and B, the endothermic process has occurred.
 - (iii) In beaker C exothermic process has occurred.
 - (iv) In beaker C endothermic process has occurred.

(a) (i) only (b) (ii) only (c) (i) and (iv) (d) (ii) and (iii)
- 9) Barium chloride, on reacting with ammonium sulphate, forms barium sulphate and ammonium chloride. Which of the following correctly represents the type of reaction involved?
 - (i) Displacement reaction
 - (ii) Precipitation reaction
 - (iii) Combination reaction
 - (iv) Double displacement reaction

(a) (i) only (b) (ii) only (c) (iv) only (d) (ii) and (iv)

Write the balanced chemical equations for the following reactions and identify the type of reaction in each case.

- 10) Nitrogen gas is treated with hydrogen gas in the presence of a catalyst at 773K to form ammonia gas.
- 11) Sodium hydroxide solution is treated with acetic acid to form sodium acetate and water.
- 12) Ethanol is warmed with ethanoic acid to form ethyl acetate in the presence of concentrated H_2SO_4 .
- 13) Ethene is burnt in the presence of oxygen to form carbon dioxide, water and releases heat and light.
- 14) Thermite reaction, iron (III) oxide reacts with aluminium and gives molten iron and aluminium oxide.
- 15) Magnesium ribbon is burnt in an atmosphere of nitrogen gas to form solid magnesium nitride.
- 16) Write the products and Lead nitrate and ferrous sulphate is heated.

PORTFOLIO

Write 5 examples of each types of reaction:

- 1) Combination Reaction
- 2) Decomposition Reaction
- 3) Single Displacement Reaction
- 4) Double Displacement Reaction
- 5) Redox Reaction.

NOTE: *All the questions should be done in your Chemistry notebook and portfolio in the Bio sheets that should be assembled in a stick file.*



SUBJECT : PHYSICS

NOTE: All the questions should be done in your Physics notebook.

1. An object is placed at a distance of 12 cm in front of a concave mirror of radius of curvature 30 cm. List four characteristics of the image formed by the mirror.
2. "The magnification produced by a spherical mirror is -3 ". List four informations you obtain from this statement about the mirror/ image.
3. The linear magnification produced by a spherical mirror is $+3$. Analyse this value and state the (i) type of mirror and (ii) position of the object with respect to the pole of the mirror. Draw a ray diagram to show the formation of image in this case.
4. A concave mirror is used for image formation for different positions of an object. What inferences can be drawn about the following when an object is placed at a distance of 10 cm from the pole of a concave mirror of focal length 15 cm?
 - (a) Position of the image
 - (b) Size of the image
 - (c) Nature of the imageDraw a labelled ray diagram to justify your inferences.
5. A spherical mirror produces an image of magnification -1 on a screen placed at a distance of 50 cm from the mirror.
 - (a) Write the type of mirror.
 - (b) Find the distance of the image from the object.
 - (c) What is the focal length of the mirror?
 - (d) Draw the ray diagram to show the image formation in this case.
6. (a) A security mirror used in a big showroom has radius of curvature 5 m. If a customer is standing at a distance of 20 m from the cash counter, find the position, nature and size of the image formed in the security mirror.
(b) Neha visited a dentist in his clinic. She observed that the dentist was holding an instrument fitted with a mirror. State the nature of this mirror and reason for its use in the instrument used by dentist.
7. Define the following term in context of spherical mirrors :

(i) Pole	(ii) Centre Curvature	(iii) Principal Axis
(iv) Principal Focus	(v) Radius of Curvature	
8. Explain why convex mirrors are used as rear-view mirrors in vehicles. Support your answer with suitable ray diagrams and properties of image formation.
9. Write mirror formula for spherical mirrors. Write the sign conventions for u , v , f for different cases of concave and convex mirrors.
10. Explain the new Cartesian sign convention.
11. Describe how a concave mirror can be used as:
 - a) A shaving mirror
 - b) A reflector in torches and headlightsExplain the principle behind each application with diagrams.
12. Discuss the uses of spherical mirrors (concave and convex) in daily life. Explain at least four applications with proper reasoning based on image formation.
13. Explain the working principle of a solar cooker using a concave mirror with a neat labelled diagram.

PHYSICS PORTFOLIO

Instruction : Perform the following tasks and include them systematically in your Portfolio (Use Bio sheets for your portfolio project).

1. Draw ray diagrams (neatly and label) for image formation by a concave mirror when the object is placed at the following positions:
I) At infinity. II) Beyond C III) At C IV) Between C and F
V) At F VI) Between F and P
2. Draw the ray diagram for a convex mirror (object at any position) and a plane mirror.
3. Draw all the rules for image formation by concave and convex lenses.

Refer Laboratory Manual and write these given below practical in practical notebook

1. Determination of the focal length of:
 - a) Concave mirror
 - b) Convex lens by obtaining the image of a distant object.
2. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.
3. Tracing the path of the rays of light through a glass prism.

4. **State integrated question:**

Theme: Light – Reflection and Refraction

State Focus: Rajasthan (The Land of Palaces and Mirror Work)

Rajasthan is world-renowned for its Thikri art—a traditional craft where intricate patterns are created using hand-cut pieces of mirrors set into lime plaster. This art form was historically used in palaces like the Sheesh Mahal to illuminate entire halls using only a few candles.

Question -

Create a traditional Rajasthani Mandala or a Thikri-inspired pattern on a piece of cardstock. Within your design, strategically place at least five small, flat mirror fragments (or reflective foil pieces) to form a specific geometric sequence.

Objectives to be achieved:

Ray mapping: using a laser pointer or a narrow beam of light, demonstrate how a single "incident ray" can be reflected across your artwork. Draw a formal ray diagram over your art, labelling the angle of incidence (i) and angle of reflection (r) for each point of contact.

SUBJECT : SOCIAL SCIENCE

1. "Power sharing is the very spirit of democracy." Beyond the moral argument, evaluate how power sharing enhances the quality of decision-making in a democracy.
2. Analyze how the horizontal distribution of power ensures the "Checks and Balances" system. Why is this system considered superior to a concentration of power?
3. "In a democracy, even the minority should have a say in the government." How does the Belgian model specifically address the concerns of the minority, and what can other diverse nations learn from it?
4. "Majoritarianism can undermine the unity of the country." Support the statement with respect to Srilanka.
5. Define 'Sustainable Development'.
6. Mention any three human activities responsible for land degradation in India.
7. What is a 'Waste Land'?
8. Which organization publishes the Human Development Report and what criteria does it use to compare countries? Examine.
9. "The consequences of environmental degradation do not respect national and state boundaries." Examine the statement in context of sustainability of development.
10. "The development goals of different categories of people may be differ." Evaluate the statement.
11. What is a nation state?
12. What led to the disaster of 1914?
13. Discuss the role of Bismarck in the unification of Germany?
14. How do female allegories create a sense of nationalism?
15. How was Britain a strange case?

SUBJECT : SANSKRIT

1. “ पर्यावरणम् “ विषये पञ्च वाक्यानि लिखत ।
2. शुचिपर्यावरणम् पाठस्य श्लोकान् स्मरणं कृत्वा अर्थं लिखत ।
3. साम्प्रतं विश्वस्य महती समस्या का अस्ति?
4. जनः केन स्वावलम्बी भवति ?
5. बहुशुद्धिकरणम् कुत्र करणीयम् ?
6. बुद्धिमती पुत्रद्वयोपेता कुत्र गच्छति?
7. गहनकानने बुद्धिमती कं ददर्श?
8. स्वस्थ शरीरं विषये 5 वाक्यानि लिखत ।
9. योगासनस्य 5 मुद्राः/ चित्राणि वा आसनानां भित्तिचित्रं (चार्ट) रचयत ।
10. स्वर सन्धेः, व्यंजन सन्धेः पंच- पंच सन्धिः/ विच्छेदं च कुरुत ।
11. 3 पत्रलेखनम् गृहकार्य पुस्तिकायाम् लिखत ।
12. 3 चित्रवर्णनं गृहकार्यपुस्तिकायां लिखत ।
13. 3 अपठित अवबोधनम् लिखत ।
14. संस्कृतभाषायाम् अनुवादं 5-5 वाक्यानि प्रतिदिनं लिखत ।
15. क्त, क्तवतु, तव्यत्, अनीयर् प्रत्ययानां 10-10 उदाहरणानि स्मरणं कृत्वा लिखत ।

पोर्टफोलियो

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अवकाश कार्य गृह कार्य पुस्तिका में बनाएँ ।

1. अपने आस-पास के वस्तुओं के 10 चित्रों को संग्रह कर संस्कृत में लिखें ।
2. 'बुद्धि ही बल है' इसके आधार पर एक कहानी लिखें ।
3. 'संस्कृतभाषा देवभाषा कथ्यते' इसके महत्व को बताते हुए 5 वाक्य लिखें ।
4. पर्यावरण-प्रदूषण से संबंधित सुरक्षा उपायों को 10 पंक्तियों में लिखें ।
5. हमारे जीवन में प्रकृतिप्रदत्त चीजों की बड़ी महत्ता है, इसके लिए हमें प्रकृतिप्रदत्त वस्तुओं एवं प्राणियों की सुरक्षा करनी चाहिए । इसी आधार पर 5 वन्य- प्राणियों का वर्णन सचित्र लिखें ।

SUBJECT : INFORMATION TECHNOLOGY (402)

1. Explain the concept of a **database**. How is it different from a **file-based system**? Give at least three differences.
2. What is a **Database Management System (DBMS)**? Explain its advantages in managing data efficiently.
3. Define the following terms with examples:
a) Table b) Record c) Field
4. Explain the concept of **Primary Key** and **Foreign Key**. Why are they important in a database?
5. What is **Structured Query Language (SQL)**? Explain its types with examples.
6. Write SQL commands for the following:
a) To create a table named *Student*
b) To insert a record
c) To display all records
7. Differentiate between the following SQL commands:
a) DELETE and DROP b) UPDATE and INSERT
8. What is a **query** in a database? Explain different types of queries with examples.
9. Explain the importance of **data types** in a database. Give examples of at least four commonly used data types.
10. What is **sorting and filtering** in a database? Explain how they help in data analysis with suitable examples.

APPLICATION ORIENTED QUESTIONS:-

1. A school stores student data in separate Excel files for each class. What problems can arise from this system? How would using a **DBMS** improve the situation?
2. A table has no primary key. What kind of issues can occur while managing data? Suggest a solution with reasoning.
3. You are asked to design a database for a library. Which fields would you include in the *Books* table and why? Justify your choices.
4. Two students entered the same data differently (e.g., “Delhi” and “delhi”). How can such inconsistencies affect database results? Suggest ways to avoid this problem.
5. A user accidentally deletes important data from a table. How can DBMS features help in preventing or recovering such data loss?

***Go through the following project and design the table using LibreOffice Base software and perform the queries as per instruction :-**

TOPIC: Online Shopping Database (Mini E-Commerce)

Objective: Store product and customer purchase details

Tables:

- Products (Product_ID, Name, Price)
- Customers (Customer_ID, Name, City)
- Orders (Order_ID, Customer_ID, Product_ID, Quantity)

Tasks:

- Find total sales
- Display customer purchase history
- Filter products by price

Make sure your project includes:

1. **Cover Page**(Project Title, Subject: Information Technology (402),Class,Student Name,Roll Number, School Name, Session (2026–27))
2. **Acknowledgement**
3. **Objective of Project**
4. **Introduction to DBMS**
5. **Tools Used (LibreOffice Base)**
6. **Database Design (Tables + Fields + Keys)**
7. **Queries (with screenshots if possible)**
8. **Output/Results**

NOTE :

1. **SOLVE THE SUBJECTIVE QUESTION IN IT NOTEBOOK.**
2. **COMPLETE THE PROJECT AND SUBMIT IN A STICK FILE.**

