



DELHI PUBLIC SCHOOL

SAIL Township, Ranchi

Summer Holiday Assignment (2017-18)

CLASS - IX

ENGLISH

1. Your friend who resides in a hill station he has invited you to visit him/her after your examinations are over. Write a letter thanking him/her for his/her offer and stating your decision to visit him/her. [Word Limit About 120 words]
2. A local reporter comes to learn of Krishtakka's story of achievement and writes a report in the newspaper. As the reporter write a report in 100-120 words.
3. Explain the statement "The student has passed with flying colours". [Word limit 25-30 words]
4. Why was the grandmother so upset when her granddaughter went away to attend a wedding?

HINDI

1. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर प्रश्नों के उत्तर लिखें।

षिषु में स्वावलंबन के भाव को जाग्रत करना अत्यन्त आवश्यक है। पराश्रित रहने की आदत से व्यक्ति अपंग हो जाता है। जो स्वयं अपनी छोटी-मोटी आवश्यकताओं के लिए दूसरों पर आश्रित रहेगा, वह दूसरों के हित के लिए क्या कर सकेगा? स्वावलंबन का गुण षिषु में स्वतः ही नहीं आ जाता, इसके लिए सुनियोजित शिक्षा पद्धति अपरिहार्य है।

षिषु को यदि हम राष्ट्र की अमूल्य निधि के रूप में देखना चाहते हैं तो उसे एक ऐसा आदर्श वातावरण प्रदान करना पड़ेगा, जिसमें निर्बाध गति से उसका चहुँमुखी विकास हो सके। स्वच्छ, शांत, भयमुक्त और स्वास्थ्यप्रद वातावरण सुकोमल भावनाओं को आघात पहुँचाना सामाजिक अपराध है। राष्ट्र का पुनीत कर्तव्य यह है कि वह प्रत्येक बालक को ऐसा वातावरण उपलब्ध कराए कि उसमें हीन भावना न पनपने पाए। हीन भावना से ग्रसीत षिषु बड़ा होने पर समाज के प्रति अपने कर्तव्य का सही रूप से निर्वाह नहीं कर पाता। यही उपयुक्त अवस्था है, जिसमें हम बच्चों को संकीर्णता से उबार सकते हैं। उसके अंदर से 'मेरे' और 'अपने' के भाव को हटाकर 'हमारा' और हमारी के भाव पैदा करना जरूरी है। हमारी शिक्षा, हमारा गाँव, हमारा समाज, हमारा देश आदि भाव जागने से सोंचने—समझने और काम करने के दृष्टिकोण में व्यापकता आ जाएगी। इससे षिषु में आध्यात्मिक चेतना भी जागेगी, उसका नाता पूर्वजों से और देश की मिट्टी से भी जुड़ेगा और उसके अंतःकरण का विकास होगा।

इसी से षिषु घर का दीप और दुनिया का दिवाकर बनेगा।

- (क) स्वावलंबी होना क्यों आवश्यक है?
- (ख) षिषु को राष्ट्र की अमूल्य निधि किस प्रकार बनाया जा सकता है?
- (ग) राष्ट्र का पुनीत कर्तव्य क्या है?
- (घ) बच्चों को संकीर्णता से उबारने के लिए क्या किया जाना चाहिए?
- (ङ) षिषु में 'हमारा' का भाव भरने पर क्या होगा?

2. निम्नलिखित शब्दों का वर्ण-विच्छेद कीजिए:
(क) अभिमन्यु (ख) प्रतीक्षा
3. (i) निम्नलिखित शब्दों के मानक रूप [षुद्ध वर्तनी] में लिखें।

- (क) सन्यासी (ख) स्वास्थ्य
(ii) अनुनासिक और अनुस्वार में अंतर स्पष्ट करें।
(iii) सही स्थान पर नुक्ता का प्रयोग करें—
(i) फरिष्ता (ii) हाजिरी

4. निम्नलिखित प्रश्नों के उत्तर लिखिए:
(क) "हीरा वही घन चोट न टूटे – से लेखक का क्या अभिप्राय है? 'धूल' पाठ के आधार पर उत्तर लिखें।
(ख) रैदास ने अपने स्वामी को किन-किन नामों से पुकारा है?
(ग) 'गिल्लू' पाठ के आधार पर कौए को समादरित और अनादरित प्राणी क्यों कहा गया है?
(घ) 'जाकी' छोति जगत कउ लागै ता पर तुहीं ढरै' – इस पंक्ति से कवि रैदास का क्या आशय है?

MATHEMATICS

Real Number :

- Rewrite as quotient of integers
(a) $0.03\overline{9}$ (b) $3.412\overline{1}$
- If $x = 9 - 4\sqrt{5}$, then find the value of $x^2 + \frac{1}{x^2}$
- Rationalise $\frac{30}{5\sqrt{3} - 3\sqrt{5}}$
- If $x = \frac{\sqrt{2a+1} + \sqrt{2a-1}}{\sqrt{2a+1} - \sqrt{2a-1}}$ prove that $x^2 - 4ax + 1 = 0$
- If $x = \frac{7 - \sqrt{45}}{3}$, find the value of
(a) $x^3 + \frac{1}{x^3}$ (b) $x^2 + \frac{1}{x^2}$ (c) $x + \frac{1}{x}$

Polynomials

- Find the value of $a^3 + b^3 + c^3 - 3abc$ when $a = 340$, $b = -12$ and $c = -328$
- Factorise
 $x^2 + 7\sqrt{5}x + 50$
- Factorise
 $x^4 + 7x^2 + 16$
- For what value of a is $2x^3 + ax^2 + 11x + a + 3$ exactly divisible by $(2x - 1)$?
- Find the remainder when the polynomial $x^4 + 2x^3 - 3x^2 + x - 1$ is divided by $x - 2$.

Introduction to Euclid's Geometry

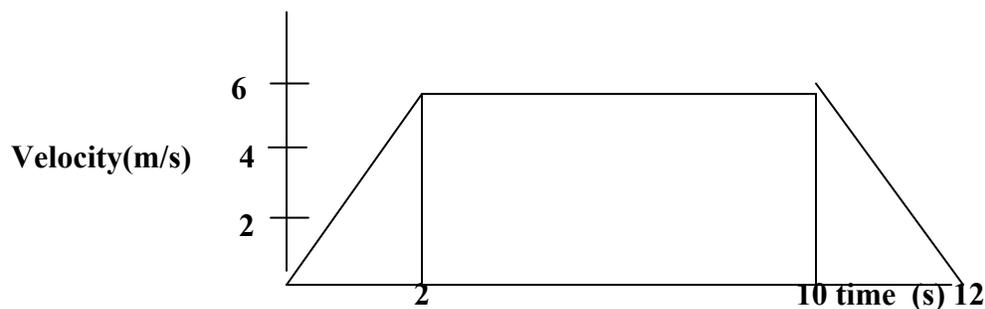
- If $AB = BC$, $BX = BY$ then show that $AX = CY$ by using appropriate Euclid's axiom.
- If S is the midpoint of line segment PQ and R is the midpoint of PS then, show that $RS = \frac{1}{4} PQ$.
- Solve the equation $x - 15 = 25$ and state Euclid's axiom used here.

4. Prove that every line segment has a unique mid-point.
5. Prove that the two lines which are both parallel to the same line, are parallel to each other.

PHYSICS

TOPIC – MOTION

1. An object has moved through a distance can't it have zero displacement? If yes support your answer with example.
2. What does the odometer of an automobile measure?
3. Under what conditions is the magnitude of the average velocity of an object equal to its average speed?
4. The distance travelled by a body varies directly proportional to time. What kind of motion the body has?
5. The distance travelled by a body varies directly proportional to the square of the time. What kind of motion the body has?
6. A ball is thrown vertically upward. After some time it returns back to the earth. Draw speed-time graph for the ball.
7. Give an example of a body moving both uniform speed but having variable velocity which remains constant in magnitude but changes in direction.
8. Draw the distance time graphs of
 - (i) Uniform motion
 - (ii) Non- uniform motion with
 - (a) When speed increases with time
 - (b) When speed decreases with time
9. A train travels the first 30km of 120km track with a uniform speed of 30 km/h. what should be the speed of the train to cover the reaming distance of the track so that average speed is 60 km/h for the entire trip.
10. Study the velocity time graph of an ascending passenger lift in the figure shown below. What is the acceleration of the lift



- a) during the first two seconds
- b) between second and tenth second
- c) during last two second
- d) Which physical quantity is measured by area under the quadrilateral ABCD? calculate it.

11. Derive the following equation of motion using graphical method

- I. $V = u + at$
- II. $S = ut + \frac{1}{2}at^2$
- III. $V^2 = u^2 + 2as$

12. a) State differences between uniform linear motion and uniform circular motion.

- b) Why an object under uniform circular motion needed a force to act upon it continuously . name the force and its direction
- c) An artificial satellite is moving in a circular orbit of radius 36000 km. if it takes 24 hours to complete in orbit around the earth find its linear speed.

CHEMISTRY

TOPIC : MATTER IN OUR SURROUNDINGS

1. Explain why are gases compressed maximum but not solids?
2. Write the full names of LPG and CNG
3. What happens to the heat energy supplied when a solid has already melted?
4. Write differences between boiling and evaporation
5. Explain why there is no rise in temperature of a substance when it undergoes a change of state although it is still being heated. NH_3 and HCl gases are both pungent smelling in nature. These are released from the two opposite corners in a room. Which gas will reach first to the person sitting in the centre of the room?
6. Butter is generally wrapped in wet cloth during summer if no refrigerator is available. Explain How does pressure help in liquification of a gas?
7. The boiling point of ethyl alcohol is 78°C . Convert it into Kelvin scale.
Define latent heat of fusion. Why do ice floats over water although it is a solid – give reason for this.
8. Discuss the various factors which influence evaporation and mention how do these factors influence evaporation. Small quantities of water and ether are placed on the palms of both the hands. Which will experience more cooling?
9. How will you separate each constituent from a mixture of ammonium chloride and sodium chloride. With the help of a suitable diagram explain the process of separation.

BIOLOGY (I)

1. Section A

- i) What is transgenic plant ?
- ii) What are smother crops?
- iii) What are GM crops? Name any one crop which is grown in India

2. Name the following

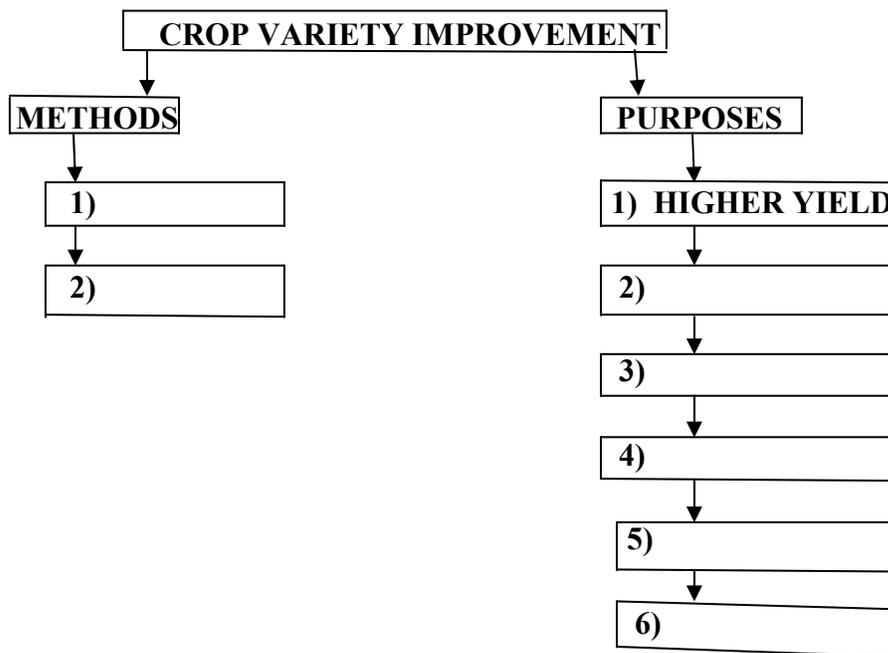
- i) Architect of green revolution
- ii) Manure formed from sewage and domestic waste
- iii) A biopesticide
- iv) A biofertiliser
- v) Cross between two different varieties of the same species is called

3. Section B

- i) What do you mean by watershed management ?
List its significance.
- ii) Explain the term sustainable agriculture. write its one advantage.
- iii) What are insect pests? Name any three method to control insect pests.
- iv) Write three significance of hybridisation.
- v) What is mixed cropping? Mention any three criteria to be adopted in selecting the component crops for mixed cropping.

4. Section C

Complete the flow chart given below



BIOLOGY - II

1. SECTION A

- i) What are the males of honey bee called?
- ii) Write the percentage of protein content in milk, egg and fish.

- iii) What do you mean by livestock?

iv) Write full form of “NDRI”.

v) Complete the pair

a) *Apis dorsata* : Rock bee :: *Apis florae* :

b) Fishery : Prawns :: : Turkeys

c) Sahiwal : Indigenous breed :: Karan Swiss :

d) Jersey : Red sindhi :: : Catla

2. SECTION B

i) Write one difference between the following –

a) Fin fishery and Shell fishery

b) Mariculture and aquaculture

c) Dairy animals and Draught animals

ii) Name the different castes of bees found in a colony. Mention the role of worker bees.

iii) Write short notes on “Operation flood”.

iv) What is the technique of practicing fish culture with the rice crop called . What are its advantages?

v) What is artificial insemination? Write its two benefits..

3. SECTION C

i) Complete the chart given below –

ANIMAL	ANIMAL DISEASES		FUNGAL
	BACTERIAL	VIRAL	
CATTLES (COW , BUFFALO)	1.	1. Foot and mouth	-
	2.	2.	
POULTRY BIRDS	1.	1.	1 Aspergillosis
	2.	2.	-

HISTORY

1. Who were the Jacobins? Explain why is the period 1793-1794 in France is called the Reign of Terror?
2. Interpret three reasons why Slavery was introduced by the French in their colonies? When was it abolished?
3. Mention the impact of the French Revolution on France. What was its Legacy?
4. Describe the importance of the declaration of the Rights of man and citizen in France?
5. What was the condition of women in France before the revolution? Describe briefly.

CIVICS

1. Why is a Democratic Government is a better form of Government? Explain.

2. **What is the significance of rule of Law and respect for Rights in a Democratic Country?**
3. **Explain various demerits of Democracy.**
4. **Explain various merits of Democracy.**
5. **How does Democracy improve the quality of decision-making?**

ECONOMICS

1. **How have modern farming methods led to the loss of soil fertility?**
2. **Explain any five ways of increasing production on the same piece of Land?**
3. **Mention any three different forms of Unemployment existing in rural and urban areas in India.**
4. **Interpret the importance of irrigation in the field of agriculture.**
5. **What is meant by Green Revolution? What are its features?**

GEOGRAPHY

A Answer the following questions in One word / One sentence :-

1. **Name the southernmost point of Indian mainland.**
2. **What is the term used to describe a country or state which is surrounded by land on all its sides?**
3. **When was the 'Indira Point' submerged under sea water?**
4. **Name the canal which has shortened the route between India and Europe.**
5. **Which is the youngest state of India?**

B Answer the following questions in short :-

1. **Latitudinal and Longitudinal extent of India is about 30 degree. Then why is the North-South extent bigger than East-West extent?**
2. **What were the three main contributions of land routes to India in ancient times?**
3. **You live in Lucknow (India) located at 82 degree east. Your pen friend lives in London, located at 0 degree (Greenwich Meridian). If it is 12.00 noon at Lucknow, what will be local time in London ? (Show calculation)**

C Answer the following questions in detail :-

1. **Why do we need a Standard Meridian? Where is it located? What is its significance?**
2. **What is a sub-continent? Name the countries which constitute the Indian sub-continent. How is India different from other countries of Asia?**

D On the political map of India locate & label the following features :-

1. **Tropic of Cancer & Standard Meridian of India**
2. **Largest & smallest state (Areawise)**
3. **Neighbouring countries & Land locked states**
4. **Gulf of Mannar & Gulf of Khambat**