



DELHI PUBLIC SCHOOL

SAIL Township, Ranchi

Summer Holiday Assignment (2017-18)

CLASS - X

ENGLISH

Section – A (Reading)

1. The Frog and the Nightingale

I. Answer the following questions briefly (30-40 words).

- 1) Why was the Frog's joy sweet and bitter?
- 2) Brief out the irony in the frog's statement – "your song must be your own".

II. Answer the following questions in about 80-100 words.

- 1) Comment on the use of symbolism in the poem.
- 2) Bring out the character of the frog.

Value based question

- 3) Do you think the Nightingale was herself responsible for her downfall and death?
Comment.

POETRY

2. Mirror

**I. I am silver and exact, I have no preconceptions
Whatever I see I swallow immediately
Just as it is, unmisted by love or dislike
I am not cruel, only truthful.**

- (a) 'Silver and exact' in these lines mean?
- (b) "I have no preconceptions". What does the mirror mean by this statement?
- (c) What does the poet mean by the line, 'unmisted by love or dislike'?

II. How is mirror important to the woman?

Value based Question:-

The poem is tragic, sad and moody and does not offer a positive solution to an individual's problems. In the light of this statement discuss the theme of the poem.

3. PROSE

Ch-1 Two Gentlemen of Verona

I. Answer the following questions in (30-40) words:-

- (a) Why was the author surprised to 'see Nicola and Jacopo working as shoe shine boys'?
- (b) When the narrator asks the boys about their plans, they are evasive. Why don't they disclose their problems?

II. Answer the following questions in about 80-100 words:-

- (a) Appearances are deceptive. Justify this statement with reference to 'Two gentlemen of Verona'.
- (b) How does the story 'Two Gentlemen of Verona' promise hope for society?

4. **ADVANCED WRITING SKILLS**

You are chosen for representing your school at the Regional level Inter School Debate Contest. "Newspapers ought to contain more news and fewer advertisement". Prepare a speech for the motion.

MATHEMATICS

1. Show that $5 - \sqrt{7}$ is an irrational number.
2. Use Euclid's algorithm to find H.C.F. of 4052 and 12576
3. Using Euclid's lemma show that square of any positive integer is either of the form $3m$ or $3m+1$ for some integer m .
4. Check whether the number 15^n where n is a natural number, ends with the digit 0, justify your answer.
5. If H.C.F. of 408 and 1032 is expressible on the form $1032m - 408 \times 5$.
6. Show that square of an odd positive integer is of the form $8m + 1$, for some integer m .
7. If zeroes of polynomial: $x^3 - 3x^2 + x + 1$ are $a-b$, $a+b$. find a .
8. If zeroes of polynomial : $\frac{1}{3}X^2 + (K - 2) + 2X$ are reciprocal of each other. Find K .
9. α, β, γ are zero of polynomial : $2x^3 + 3x^2 + 4x + 8$. Find $\frac{1}{\alpha} + \frac{1}{\beta} + \frac{1}{\gamma}$
10. If the polynomial : $x^4 + 2x^3 + 8x^2 + 12x + 8$ is divided by another polynomial $(x^2 + 5)$, the remainder is $ax + b$. find $a-b$.
11. What must be added to $f(x) = x^4 + 2x^3 - 2x^2 + x - 1$ so that the resulting polynomial is exactly divisible by $x^2 + 2x - 3$?
12. If the remainder on division of $x^3 + 2x^2 + kx + 3$ by $x - 3$ is 21. Find the quotient and the value of k . Hence find the zeros of the cubic polynomial $x^3 + 2x^2 + kx - 18$.
13. If α, β are the zeros of $p(x) = x^2 - 2x - 8$ then form a quadratic polynomial whose zeros are $(\frac{1}{\alpha} + \frac{1}{\beta})$ and $(\frac{1}{\alpha} - \frac{1}{\beta})$
14. Give the examples of polynomial $p(x)$, $g(x)$ and $r(x)$ which satisfy the division algorithm and
 - I. $\deg p(x) = \deg q(x)$
 - II. $\deg q(x) = \deg r(x)$
 - III. $\deg g(x) = 0$
15. A says to B "I am five times old as you were, when I was as old as you are" Then sum of their present ages is 64 years. Find their ages.
16. A two digit number is obtained by their multiplying the sum of the digits by 8 and adding 1 or by multiplying the difference of the digits by 13 and adding 2. Find the number. Hence many numbers are there?
17. A train overtakes two persons who are walking in the same direction in which the train is going at the speed of 2 km per hour and 4km per hour and passes them completely in 9 and 10 second respectively. Find the length and speed of train.
18. A number of consists of three digits whole sum is 17. The middle one exceeds the sum of the other two by 1. If the digits be reversed the number is diminished by 396. Find the number.

19. The sum total of the ages of father and son is 55 years. If the father was to live till his son's age equal his present age, the total their ages would be 93 years . Find their present ages.
20. The incomes of X and Y are in the ratio of 8:7 and their expenditures are in the ratio 19:16 If each saves Rs. 1250. Find their income.
21. Draw the graph of $x-y+1=0$ and $3x+2y-12=0$ calculate the area bounded by these lines and axes.

PHYSICS

SECTION A (General Questions)

1. What is meant by the statement that the potential difference between two points is 1V ?
1. How much charge is given to each coulomb of charge passing through a 6V battery ?
2. State Ohm's law. Define ohmic and non ohmic conductor ? Draw V-I graph
3. Define resistivity. Discuss the factors on which resistivity depends.
4. What do you mean by resistance of a conductor? State various factors on which resistance of a conductor depends.
5. Discuss the role of RHEOSTAT in the circuit for verification of Ohm's law.
6. How does the resistance of a conductor depends on temperature ? Define the term temperature coefficient of resistance .
7. Distinguish between conductors, resistors and insulators.
8. Derive an expression for heat produced in a conductor when electric current flows through it.
9. Electrons are continuously in motion in a conductor but there is no current in it unless some potential difference is applied , why ?
10. Define kilowatt hour (KWh). Which quantity is measured in KWh?

SECTION B (Numericals)

1. Five resistors each of resistance R are connected in series have resistance R_s . Now all the resistors are connected in parallel having resistance R_p . Find the ratio of R_p to R_s
2. An electron e is revolving in circular orbits having frequency f . Find the current for the electron.
3. A steady current of 5 ampere flows through a circuit for 30 minutes. How much charge has circulated through the circuit in this time.
4. The minimum and maximum value of equivalent resistance of two resistors are 3 ohm and 16 ohm respectively. Find the value of two resistances.
5. A current I flows through combination of three parallel resistors R, 2R and 3R. Find the current through each resistor.
6. Two lamps one rated 100W -220V and 60W -220V are connected in parallel to a 220V supply. What is the current drawn from supply line ?
7. You are provided with two bulbs operating on 220V, one of 60W and another of 100W. If the two are connected in series and the combination is connected to 440V, which of them will fuse and why?
8. Two bulbs having power P_1 and P_2 are connected firstly in series and then in parallel. Find the equivalent power in series and parallel.

CHEMISTRY

1. What is rust ?
2. Identify the substance oxidized and reduced in the reaction
$$\text{CuO (s) + Zn (s) } \rightarrow \text{ZnO (s) + Cu (s)}$$
3. What happens chemically when quicklime is added to water ?
4. What happens when
 $\text{CO}_2(\text{g})$ is bubbled through lime water (1) in small amount (2) in excess
5. Give one example each of
 - (a) Thermal decomposition
 - (b) Electrolytic decomposition reaction
 - (c) Photo decomposition reaction
6. (i) What is observed when a solution of potassium iodide is added to a solution of lead nitrate in a test tube
(ii) What type of reaction is this ?
(iii) Write a balanced equation to represent the above reaction
7. (a) Why is it always essential to balance a chemical reaction ?
(b) Can rusting of iron take place in distilled water?
(c) White silver chloride turns grey in sunlight . Give reason.
8. strip of a metal X is immersed in the aqueous solution of salt YSO_4 blue in colour. After sometime a layer of metal Y from the salt solution is deposited on the strip of metal X .Whereas the metal X is used for galvanization , the metal Y is employed for making electric cables.
 - (a) predict the metal X.
 - (b) What could be the metal Y?
 - (c) Can you name the salt YSO_4 ?
 - (d) What is the nature of the chemical reaction taking place ?
9. (a) Why is combustion reaction an oxidation reaction ?
(b) How will you test that the gas evolved in a reaction is hydrogen ?
(c) Why does not silver evolve hydrogen on reacting with dilute sulphuric acid?

BIOLOGY

Ch - Life Process (Nutrition + Respiration)

1. Name one animal each with extra cellular and intracellular digestion.
2. Mention the role of bile in the digestion of food.
3. What is the role of acid in our stomach?
4. Where does protein digestion take place in the human alimentary canal? Also name the protein digesting enzyme.
5. Why is trachea supported by cartilaginous rings?
6. What qualities should a respiratory surface have?
7. Give a schematic representation of the breakdown of glucose by various pathways.
8. Draw a well labelled diagram of human alimentary canal.
9. With the help of well labeled diagram explain opening and closing of stomata.

10. a) With the help of diagram explain how digestion occur in Amoeba?
- b) What is holozoic nutrition?

TOPIC - TRANSPORTATION IN PLANTS & HUMANS

1. What is meant by ascent of sap?
2. What is transpiration? How is transpiration useful to plant?
3. Briefly describe the mechanism of translocation of food in plant.
4. What is lymph?
5. What is double circulation?
6. State two differences between an artery and a vein.
7. Give reasons for the following:
 - a) Valves are present in heart.
 - b) Trachea does not collapse even when there is no air in it.
 - c) Left ventricle has thicker wall than the right ventricle.
8. Write important functions of blood.
9. a) Give the schematic representation of transport and exchange of gases in human beings.
b) What is the need of separating oxygenated and deoxygenated blood in birds and mammals?
10. a) Draw the sectional view of human heart and label in it.
 - i) Pulmonary artery
 - ii) Aorta
 - iii) Vena Cava
 - iv) Pulmonary vein
- b) Why do ventricles have thicker walls than artia
- c) How many chambers are present in the heart of fishes, amphibians and reptiles?

TOPIC - EXCRETION IN HUMANS & PLANTS

1. How amoeba get rid of their nitrogenous waste?
2. What will happen if both kidneys stop functioning?
3. Mention the composition of human urine?
4. What is artificial kidney?
5. Name the following:-
 - a) An anticoagulant
 - b) Photosynthetic waste of plant
 - c) Blood vessels that bring blood to kidney with nitrogenous waste
 - d) Two excretory products of plants
 - e) Process of removal of nitrogenous wastes from blood using artificial kidney
6. If human urine is allowed to stand for some time, it smells of ammonia. Why?
7. How is the amount of urine produced regulated?
8. Differentiate between excretion and osmoregulation.

9. Complete the given table:-

Sl. No.	PARTS	FUNCTION
1	Ureter	
2	Urethra	
3	Urinary Bladder	
4	Glomerulus	
5	Henle's Loop	
6	Tubular Part Of Nephron	

HISTORY

AGE OF INDUSTRIALISATIONS

1. Discuss three reasons for the decline of the Indian textile.
2. How did the East India company procure regular supplies of cotton and silk from the Indian weavers?
3. How do advertisement help in creating new consumers?
4. Discuss the various problem faced by the Indian weavers in the 19th century.
5. Mention any three restrictions imposed by the British government on the Indian merchants in the 19th Century.
6. How was the life of workers in the age of Industrialisation?
7. How did the factory production begin in England?
8. Why did some industrialists in the 19th century Europe prefer hand labour to machines?
9. How was the production carried out during the phase of photo-industrialisation in Europe in the 17th and 18th century?
10. How did Indian entrepreneurs accumulate capital for investment.
11. Discuss three main problems faced by new European merchants in setting up their industries in towns before the Industrial Revolutions.
12. What were the peculiarities of the Indian Industrial growth in the 20th century.

POLITICAL SCIENCE

1. Give an example of checks and balances that exists in Indian constitution to ensure power sharing among different organs of the government.
2. What do you understand by coalition government? How does it affect the efficiency of the government?
3. Give two justifications for reservation of seats for women in Lok Sabha.
4. Considering Indian union and USA, distinguish between coming together and holding together federations.
5. Law and order is a state subject. Do you think this comes in the way of internal as well as national security.
6. What is meant by residuary power? In whom do these powers vest under the Indian constitution?
7. "Inadequate power sharing arrangements have been responsible for lingual trouble in Sri Lanka". Do you agree?
Give reasons for your answer.

8. Differentiate between horizontal and vertical power sharing. Illustrate your answer with suitable examples.
9. What role does judiciary play in ensuring that the federal character of the Indian government is respected by all the organs of the government?
10. Highlight the characteristics features of India's language policy, comment upon the Indian Society.

ECONOMICS

Ch. 1 – Development

(I) Answer the following questions in one word or one sentence

1. What is per capita income?
2. What term is used for report published by UNDP which compares countries based on the educational levels of the people, their health status and per capita income?
3. What is Net Attendance Ratio?
4. Which neighbouring country of India ranks better according to the HDI report?

(II) Answer the following questions in short

1. "Development for one may be the destruction for the other". Support the statement with examples.
2. "Money cannot buy all the goods and services that one needs to live well". Support the statement with three suitable examples.
3. Explain why Kerala has low infant mortality rate?
4. What is BMI and how is it calculated?

(III) Answer the following questions in detail

1. What is development? Why do different people have different developmental goals? Explain with four examples.
2. 'Consequences of environmental degradation do not respect national or state boundaries'. Explain the statement with respect to sustainability of development.

GEOGRAPHY

Ch. 1 – Resources and Development

(I) Answer the following questions in one word or one sentence

1. Name the resources which are obtain from biosphere and have life.
2. Why has an equitable distribution of resources become essential?
3. What is the total geographical area of India?

(II) Answer the following questions in short

1. Define the term 'Resource'. Do you think that resources are free gifts of nature?
2. 'Land is a natural resource of utmost important. Explain the statement by giving three points.
3. Which is the most widely spread and important soil of India? State any two characteristics of this type of soil.

(III) Answer the following questions in detail

1. What are the causes of land degradation? What are the ways to solve this problem?

कक्षा दशमी अवकाष गृहकार्यम्
संस्कृतम्

1. रेखांकितपदस्य सहायतया प्रश्ननिर्माणं कुरु—
(क) राजगृहे बालवाहनयोग्यं मेषयूथम् असीत् ।
(ख) राजा वैज्ञान् आहूय अष्वरक्षार्थं अपृच्छत् ।
(ग) ज्वलन् मेष अष्वपालां प्रविषति ।
(घ) षट् एते पाठका गुणाः ।
2. आचार्यात् पादम् आदत्ते पादं शिष्यः स्वेधया ।
कालेन पादं आदत्ते पादं सब्रह्मचारिभिः ।।
उपरोक्तं श्लोकं पठित्वा प्रश्नान् उत्तरत
I. (एकपदेन) कः आचार्यात् पादम् आदत्ते?
II. (एकवाक्येन) शिष्यः स्वमेधया किं गृह्णाति?
III. भाषिक कार्यम् (क) 'अनुभवेन'—इत्यस्मिन् अर्थे प्लोके किं पदम् प्रयुक्तं अस्ति?
(ख) 'बुद्ध्या' / बुद्ध्या पदस्य समानार्थकं पदं श्लोकात् चित्वा लिखत
3. शुद्धम् अर्थं चीयताम्
I. अटव्याम् – वने, क्षितां, अहनि
II. भारती— बालिका, सरस्वती, भारतमाता
III. रहसि— राजभवने, वने, एकांते
4. कथाक्रमानुसारेण वाक्यानि पुनः लेखनीयानि
I. एषः कलहः नूनं भवतां विनाषकारणं भविष्यति
II. एको मेषः महानसं प्रविष्यं यत् पष्यति तत् भक्षयति ।
III. नगरे चंद्रः नाम भूपतिः प्रतिवसति स्म ।
IV. 'यथोचितं क्रियताम्' इति राजादेशं श्रुत्वा सर्वे कपयः भयत्रस्ताः अभवन् ।
V. ज्वालमालाकुलाः अष्वाः प्राणत्राणाय इतस्ततः अधावन् ।
VI. मेषस्य क्षितौ लुठतः तृणेषु वह्निज्वालाः समुत्थिताः ।
VII. राजपुत्राः प्रासादे वानरैः सह क्रीडन्ति स्म ।
VIII. यूथपतेः वचनं अप्रियं मत्वा कपयः प्राहसन् ।
5. संधिच्छेदं क्रियताम् संधि वा ।
I. धेनुभिरागतम् ।
II. सुप्तोत्थितः प्रच्छन्नभाग्य पत्नीम् उवाच ।
III. सैनिक+ छात्राणाम् पथसंचलम – ध्वनिः भवति ।
IV. नृपः रिपुं जयति ।
V. सः पायसभुङ्क्ते ।
6. मंजूषायाः प्रदत्तषब्दानं सहायतया " विद्यालये स्वच्छता' इति विषयम् अधिकृत्य संस्कृतेन पंचवाक्येषु एकम् अनुच्छेदं लिखत—
मंजूषा—

कर्मदपत्राणि, सुधाखण्डान्, संचिका, भोजनं, पुष्पाणि, अवकरं, मार्जकाः, कर्तव्यम्, अवकरपात्रे, उद्याने
क्षिपन्ति, न, पातयन्ति, स्थापयाम्, भित्तिषु, लिखन्ति, त्रोटयन्ति, कुर्वन्ति, इतस्ततः

कक्षा – दसवीं

हिन्दी

प्र01 काव्यांश को ध्यानपूर्वक पढ़कर प्रश्नों के उत्तर दें—

देशप्रेम के ओ मतवाले! उनको भूल न जाना।
महाप्रलय की अग्नि साथ लेकर जो जग में आए,
विष्वबली षासन के भय जिनके आगे मुरझाए,
चले गए जो षीष चढ़ाकर, अर्ध्य लिए प्राणों का—
चलें मज़ारों पर हम उनके आज प्रदीप जलाएँ।
जीत गए हम जीता विद्रोही अभिमान हमारा,
प्राणदान – विक्षुब्ध तरंगो को मिल गया किनारा।
उदित हुआ रवि स्वंत्रता का व्योम उगलता जीवन
आजादी की आग अमर है घोषित करता कण—कण
झंझा, तूफानों ने जिस दृढ़ता का लोहा माना
देशप्रेम के ओ मतवाले ! उनको भूल न जाना।

(क) कवि ने किसे याद करने के लिए कहा है और क्यों?

(ख) कण—कण किसकी घोषणा करता है?

(ग) कौन से षासन षहीदों के सम्मुख मुरझाए और क्यों?

(घ) (i) काव्यांश के लिए उचित षीर्षक दें।

(ii) मुहावरे से वाक्य बनाएँ – लोहा मानना।

प्र02 काव्यांश को पढ़कर प्रश्नों के उत्तर दें—

सुखिया सब संसार है, खाये अरू सोवे।

दुखिया दास कबीर है, जागै अरू रोवै।।

(क) संसार अपना सुख किसमें मानता है?

(ख) कबीरदास क्यों दुखी हैं?

(ग) 'सुखिया सब संसार' में कौन – सा अलंकार है?

(घ) 'दोहे में 'जागै' और 'सोवै' का भाव क्या है?

प्र03 छोटे भाई ने पढ़ाई का टाइम –टेबल बनाते समय क्या—क्या सोचा और फिर उसका पालन क्यों नहीं कर पाया?

प्र04 'डायरी का एक पन्ना' पाठ से विद्यार्थियों को क्या प्रेरणा मिलती है?

प्र05 " स्वार्थी – प्रवृत्ति के कारण आजकल पारिवारिक संबंध बिगड़ रहे हैं, जिससे घर की षान्ति भंग हो गई है, बुजुर्ग उपेक्षा का जीवन जी रहे हैं।" हरिहर काका पाठ के आधार पर अपने विचार व्यक्त करें।

प्र06 षब्द एवं पद का अंतर उदाहरण देकर स्पष्ट करें।

प्र07 मुहावरों से वाक्य बनाएँ—

(क) मजा चखाना

(ख) आपा खोना

(ग) जमीन पर पाँव न रखना

प्र08 उत्प्रेक्षा एवं यमक अलंकार के एक—एक उदाहरण दें।