



OXFORD PUBLIC SCHOOL, RANCHI

SUMMER HOLIDAY ASSIGNMENT (2018-19)

CLASS - X

ENGLISH

1. You are Avni/Avinash, Physical Education Teacher of Sunshine Public School, Civil Lines, Pune, Maharashtra. Write a letter to Lightways Sports, Amrapalli, Thane, placing order for sports articles (minimum 4) to be supplied to your school. Also ask for the discount offered on the purchase.
2. You are Ashok Chaturvedi staying at 42, Kalkaji Extension, New Delhi. Recently you bought an inverter from Electronics World, Nehru Place, New Delhi. After a week you find that the inverter is not working properly. Write a letter to the dealer to replace it immediately as it is under warranty period.
3. Changing lifestyle, such as lack of exercise and the craze for junk food, has become a way of life today, resulting in obesity and other ailments among the youth. Write a letter to the Editor of a national daily to create awareness among today's youth. Sign yourself as Amit/Amita.
4. Materialistic things don't really last. What matters most are the people we care about and the values we live with. Explain this with reference to the poem 'Not Marble Nor the Gilded Monuments'. (Word limit: 100-120 words)
5. At the end of the day, Mrs Packletide writes a diary entry highlighting the important lesson the big game shooting has taught her. Write her diary entry in about 100-120 words.

FOUNDATION OF INFORMATION TECHNOLOGY (FIT)

1. Write short notes on the following:
(a) ARPANET (b) NSFnet (c) Blog (d) Packets (e) Protocol
(f) ISP (g) HTTP (h) Web Site (i) Web Address (j) Web Page
(k) Home Page (l) Web Portal (m) URL (n) DNS (o) Hyperlinks
2. What is TCP/IP?
3. Write the uses of Internet. Explain with its advantages and disadvantages.
4. What is Web Browser? Explain its types.
5. What is Search engine? Explain its elements.
6. What is an e-mail? Write its advantages and limitations.
7. Differentiate between:
(i) Server and Web Server (ii) POP3 and SMTP (iii) Internet and Intranet (iv) Cc and Bcc
8. Expand the following abbreviations:
(a) WWW (b) URL (c) HTTP (d) TCP/IP (e) POP
(f) SMTP (g) FTP (h) Wi-Fi (i) DHCP

MATHEMATICS

1. Find the H.C.F of 1032 and 408 by using Euclid's Algorithm.
2. Find the greatest number that will divide 445, 572 and 699 leaving remainder 4, 5 and 6 respectively.
3. Show that every positive even Integer is of the form $4q$ and $4q+2$ and that every odd integer is of the form $4q+1$ or $4q+3$ where q is some Integer.
4. Prove that $\sqrt{5}$ is not a rational number.
5. Prove that $\sqrt{3} + \sqrt{2}$ is an irrational number.
6. Find the zeroes of the quadratic polynomial $4x^2 - 4x - 3$ and verify the relation between the zeroes and its coefficients.
7. If α, β are the zeroes of the polynomial $ax^2 + bx + c$. Find the value of
a) $\sqrt{\frac{\alpha}{\beta}} + \sqrt{\frac{\beta}{\alpha}}$ b) $\alpha^3 + \beta^3$.
8. If two zeroes of the polynomial $x^4 - 6x^3 - 26x^2 + 138x - 35$ are $2 \pm \sqrt{3}$. Find the other zeroes.
9. Divide $x^7 - y^7$ by $x - y$ and verify the division algorithm.
10. If α, β, γ are the zeroes of the cubic polynomial $x^3 + 4x + 2$, then find the value of
 $\frac{1}{\alpha + \beta} + \frac{1}{\beta + \gamma} + \frac{1}{\alpha + \gamma}$.
11. Solve graphically the following system of linear equations :
 $2x + y - 6 = 0$
 $4x - 2y - 4 = 0$.
12. Solve for x and y if :

$$i) \quad \frac{1}{7x} + \frac{1}{6y} = 3$$

$$ii) \quad \frac{3a}{x} - \frac{2b}{y} + 5 = 0$$

$$\frac{1}{2x} - \frac{1}{3y} = 5$$

$$\frac{a}{x} + \frac{2b}{y} - 2 = 0$$

$$iii) \quad 41x - 17y = 99$$

$$17x - 41y = 75$$

13. Find the values of m and n for which the following system of linear equations has infinitely many solutions :

$$3x + 4y = 12$$

$$(m+n)x + 2(m-n)y = 5m - 1$$

PHYSICS

- Describe an experiment to verify Ohm's law with a neat diagram.
- The values of current (I) flowing in a given resistor for the corresponding values of potential difference (V) across the resistor are given below:

I (ampere)	0.5	1.0	2.0	3.0	4.0
V (volts)	1.6	3.4	6.7	10.2	13.2

Plot a graph between V and I and calculate the resistance of that resistor.
- What do you mean by resistance of a conductor? Define the unit of electrical resistance.
- The potential difference between the terminals of an electric iron is 240V and the current is 5.0 A. What is the resistance of the electric iron?
- An electric room heater draws a current of 2.4 A from the 120 V supply line. What current will this room heater draw when connected to 240V supply line?
- How much energy is given to each coulomb of charge passing through a 6V battery?
- Will current flow more easily through a thick wire or a thin wire of the same material when connected to the same source? Why?

CHEMISTRY

- Zinc liberates hydrogen gas when reacted with dilute hydrochloric acid, whereas copper does not. Explain why?
- What happens, when Zinc granules are heated with dilute solutions of H_2SO_4 , HCl, HNO_3 , NaCl, NaOH. Also write the chemical equations if reaction occurs.
- Give the characteristic test for the following gases: (a) CO_2 (b) O_2 (c) H_2
- What happens when silver chloride is exposed to sunlight? Write a chemical equation for this reaction.
- Explain the term "corrosion" with an example. Write a chemical equation to show the process of corrosion of iron.
- What is a redox reaction? Explain with an example.
- Why are decomposition reactions considered as opposite of combination reaction? Explain with an example.
- Is oxidation an endothermic or exothermic reaction? Explain.
- What happens when ferrous sulphate is strongly heated?
- Explain the term "rancidity". What damage is caused by rancidity?
- What is a chemical equation? Explain with the help of an example.
- State the various characteristics of a chemical reaction.
- What do you understand by exothermic and endothermic reactions?
- Why should chemical equation be balanced?
- Why is photosynthesis considered an endothermic reaction?

BIOLOGY

- State the basic difference between Respiration and Photosynthesis.
- How does opening and closing of Stomata take place?
- Prepare a project on Human Respiratory system and various respiratory disorders of humans.
- Collect five definitions from each:- a) Nutrition b) Respiration
- Differentiate between Stomata and Lenticels.

SOCIAL SCIENCE

HISTORY

- What do you mean by Nationalism? How did the concept of Nation-states develop in Europe?
- Write a short note about Frederic Sorrieu.
- How had revolutionaries spread their ideas in many European states after 1815? Explain with examples.

4. Give a brief account of Giuseppe Mazzini.
5. Who hosted the Congress at Vienna in 1815?

POLITICAL SCIENCE

6. Make a project on the topic **Popular Struggles and Movement**.
 - Introduction
 - Popular Struggles in Nepal and Bolivia
 - Democracy and popular struggles
 - Pressure Groups and Movements
 - Pressure Groups and Movements influencing Politics

GEOGRAPHY

7. What do you mean by conservation of Resources?
8. What is Resource Planning? Explain briefly different methods of Resource Planning.
9. Define Land Degradation. Explain briefly the different factors responsible for Land Degradation.
10. Classify soils into different categories and explain briefly about the Black Soil.
11. What is soil erosion? Discuss briefly the different methods of soil conservation.

ECONOMICS

12. Name the criterion used by the World Bank for comparing countries.
13. Explain the role of education and health in the overall development of a country.
14. "Money in your pocket cannot buy all the goods and services that you need to live well". Justify the given statement.
15. Girls in India in the rural sector are sometimes not able to get secondary level education. Give three reasons for the statement.
16. Is crude oil essential for the development process in a country? Discuss.

HINDI

1. कक्षा दसवीं के पाठ्यपुस्तक कृतिका अथवा क्षितिज के किसी एक कवि या लेखक का जीवन एवं साहित्यिक परिचय चार्ट पेपर में स्पष्ट एवं साफ़-साफ़ अक्षरों में लिखें।
2. सूरदास के पदों की व्याख्या अपने शब्दों में करें।
3. वर्तमान समय में नदियों एवं वनों के बचाव हेतु ठोस उपाय सुझाते हुए अपने मंतव्य के साथ लगभग 1000 शब्दों में एक निबंध लिखें।
4. अपने आस पास के गीत, गानों, कविताओं को ध्यान में रखते हुए सभी रसों के दो-दो उदाहरण लिखें। (कोई भी उदाहरण आपके किसी पाठ्य पुस्तक अथवा सहायक पुस्तक से नहीं होने चाहिए।)

SANSKRIT

1. उच्चारण स्थानानि स्मरणं कृत्वा तेषां सूत्राणां सोदाहरणेन लिखत।
2. तत्पुरुष समासस्य उपभेदान् लिखित्वा सविग्रहेण दश-दश उदाहरणानि लिखत।
द्वितीया तत्पुरुषः पंचमी तत्पुरुषः
तृतीया तत्पुरुषः षष्ठी तत्पुरुषः
चतुर्थी तत्पुरुषः सप्तमी तत्पुरुषः
3. निर्देशित सन्धेः दश-दश उदाहरणानि विच्छेदेन सह लिखत।
अयादि पूर्वरूप
वृद्धि पररूप
गुण प्रकृतिभावः
4. शब्द रूपाणि लिखित्वा स्मरत – शिष्या, भवत्, मातृ, कपि, शत्रु
5. धातु रूपाणि पंचलकारेषु लिखित्वा स्मरत – हन्, कृ, पा, सेव्, लभ्
6. पठित पाठ्य पुस्तक-सहायतया निर्देशानुसारेण लिखत –
पत्रम् – 4, चित्रवर्णनम् – 4, संवाद लेखनम् – 4
7. 'वाङ्मयं तपः', 'आज्ञा गुरुणां हि अविचारणीया' पाठाभ्यां प्रश्न निर्माणं (5+5), मेलनं, अन्वयाः (10) च लिखत।
