R.S.M. PUBLIC SCHOOL, SUPAUL

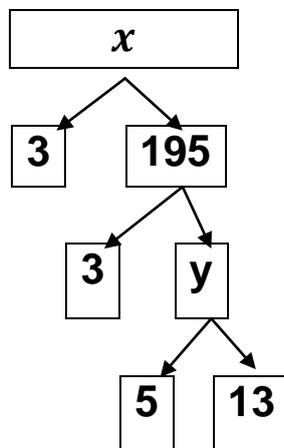## HOLIDAY HOME WORK-2020
CLASS-10

(INFORMATION TECHNOLOGY)

Answer the following questions:

Q.1 What is the significance of Accessibility options in a computer?

Q.2 What is a network? What are the advantages of networking?

Q.3 What do you mean by instant messages?

Q.4 Explain the purpose of a blog. List any 5 websites that provide blog service.

Q.5 Suggest some security measure to ensure safety from online threats.

Q.6 Explain the purpose of online transactions.

Q.7 Explain the meaning and function of modem.

Q.8 Write down the process for transferring data on the Internet.

Q.9 What is an ISP?

Q.10 Describe about Network architecture.

(MATHEMATICS)

Solve these Problems:

1. Using Euclid's algorithm, find the HCF of 240 and 228.

2. Complete the following factor tree and find the composite number x.

3. Given that HCF (306, 1, 314) = 18 find LCM (306, 1, 314).

4. Show that any positive odd integer is of the form 4q + 1 or 4q + 3, where q is some integer.

5. State fundamental theorem of arithmetic. Is it possible that HCF and LCM of two numbers be 24 and 540 respectively. Justify your answer.

6. Prove that $\sqrt{3}$ is an irrational number. Hence, show that $7 + 2\sqrt{3}$ is also an irrational number.

7. Find the quadratic polynomial, the sum and product of whose zeroes are 6 and 9 respectively. Hence find the zeroes.

8. If $\propto$ and $ß$ are the zeroes of the polynomial $x^2 + 8x + 6$ form a quadratic polynomial whose zeroes are $\frac{1}{\propto}$ and $\frac{1}{ß}$.

9. If two zeroes of a polynomial $x^3 + 5x^2 + 7x + 3$ are -1 and -3, then find the third zero.

10. Obtain all other zeroes of the polynomial $x^4 + 6x^3 + x^2 - 24x - 20$, if two of its zeroes are $+2$ and -5.

11. If $\propto$ and $ß$ are the zeroes of the polynomial $2x^2 - 4x + 5$, find the value of

   I. $\propto^2 + ß^2$

   II. $\frac{1}{\propto} + \frac{1}{ß}$

   III. $(\propto + ß)^2$

   IV. $\frac{1}{\propto^2} + \frac{1}{ß^2}$

   $\propto^3 + ß^3$

12. **Project Work:**
   Write about the contributions of any two mathematicians in the field of math (nearly 15 to 20 points with Snap).

   13. Find the value of 'k' for which of the following pair has no. solution.
   $X + 2y = 3$
   $(K - 1)x + (k + 1)y = k + 2$.

14. Solve graphically
   $2x + y - 6 = 0$
   $4x - 2y - 4 = 0$
   Solve by substitutions and cross multiplication method.
   $8x + 5y = 9$
   $3x + 2y = 4$

15. Solve for x and y.
   $\frac{6}{x-1} - \frac{3}{y-2} = 1$
   $\frac{5}{x-1} + \frac{1}{y-2} = 2$

16. A two digit number is obtained by either multiplying the sum of digits by 8 and then subtracting 5 or by multiplying the difference of digits by 16 and adding 3. Find the number.

17. Solve NCERT Ex. – 2.3

18. Solve NCERT Ex. – 3.6

19. Draw one project from linear equation in two variables of your choice.

Note:

  i.) Students are instructed to solve all the questions & go through stepwise process.

    ii.) Solve all the questions in a separate notebook.

    iii.) This holiday home–assignment must be submitted to your concerned subject teacher, when the School reopens.
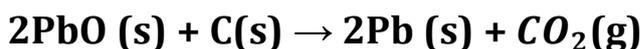
(CHEMISTRY)

Very short Answer Type Questions:

1. Why is respiration considered an exothermic process?

2. On what basis is a chemical equation balanced?
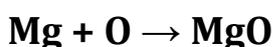
3. What is meant by a chemical reaction?
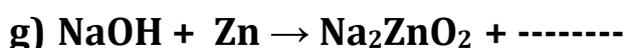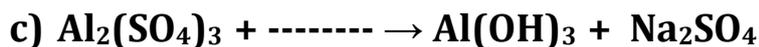
4. Identify in the chemical reaction given below

$2PbO$ (s) + C(s) $\rightarrow$ 2Pb (s) + CO_2(g)

    a)   The substance oxidised.

    b)   The substance reduced.

5. What is wrong with the following chemical equation

Mg + O $\rightarrow$ MgO

__Correct and balance it.__

6. Complete and balance the following equations:-

a) NaOH + ---------- $\rightarrow$ Na_2SO_4 + H_2O

b) NH_3 + CuO $\rightarrow$ --------- + N_2 + H_2O

c) $Al_2(SO_4)_3$ + -------- $\rightarrow$ $Al(OH)_3$ + Na_2SO_4

d) $FeSO_4$ $\rightarrow$ Fe_2O_3 + SO_2 + SO_3

e) Fe_2O_3 + Al $\rightarrow$ Al_2O_3 + Fe

f) $Pb(NO_3)_2$ + --------- $\rightarrow$ PbI_2 + KNO_3

g) NaOH + Zn $\rightarrow$ Na_2ZnO_2 + --------

h) $BaCl_2$ + ----------- $\rightarrow$ $BaSO_4$ + HCl

7. A solutions of substance x is used for white washing. Name the substance x and its formula. Also give chemical equation to express reaction between x and water.

8. What is an indicator? Give example.
9. Name the acid - base indicator extracted from lichen.
10. What is produced if an acid added to a base?
11. Dry HCL gas does not change the colour of dry litmus Paper. Why?
12. What is brine? Write its formula.
13. What do you mean by chlor – alkali process? Write chemical equation.
14. Distinguish between baking soda and baking powder.
15. What do you mean by pH of a solution? What is pH scale?
16. What is universal indicator? Why is it needed?
17. pH testing of soil is essential. Why?
18. A chemical 'A' is used in soda acid fire extinguisher. Name the chemical 'A' and also write chemical equation for the reaction between 'A' and an acid.
19. a) What is plaster of paris? Give chemical equation for its preparation.
    b) Heating should be controlled up to 373 Kelvin during the reaction. Why?
20. What is effect of heat on hydrated salts? Give example.
21. What type of salt will give an acidic solution in water? Give example.
22. What do you mean by rancidity? Give ways to prevent it.
23. During diluting concentrated acid, acid should be added to water gradually. Why?
24. Acids do not react with metal like copper. Why?
25. Explain an experiment to test the gas, evolved, when an acid reacts with metal. Also draw diagram.

(PHYSICS)

Answer these questions:-
1. What are the characteristics of a plane mirror?
2. Distinguish between concave and convex mirror.
3. How will you find the focal length of a concave mirror/convex lense?
4. Explain the sign conventions for convex lense.
5. What is magnification? Write its significance.
6. What is power of lens? Also define dioptre power.
7. Draw the ray diagram of refractions of light through glass slab.
8. Solve five numerical equations based on mirror formula/lens formula.
9. Practice ray diagram of image formation by concave mirror.
10. What are the causes of refractions? Show it with figure.
11. Explain the structure of human eye.

12. Explain Myopia & Hypermetropia with ray diagram. Also draw the diagram of corrective eye. (Before correction and after correction).

13. Show the refraction of light through glass prism.

(BIOLOGY)

1. To draw neat labelled diagram of following:-
   a) Human heart   b) Nephron   c) Neuron   d)Brain.

2. To write and learn:-
   a) Steps of photosynthesis   b) Functions of Nephron
   c) Alveoli and Brain.

3. To learn :-
   a) Functions of all digestive enzymes.
   b) Differences between :-
   - I. Aerobic respiration and Anaerobic respiration
   - II. Alveoli and Nephron
   - III. Artery and vein.

4. **Objective Questions:-**
   Name the following:-
   a) A pigment which absorbs sunlight.
   b) An example of animal which has two chambered Heart.
   c) A vein which carry pure blood.
   d) Site of Oxidation of food.
   e) Particular blood vessel which transport pure blood into Heart.
   f) Site of glycolysis in cell.
   g) Device used to measure the blood pressure.
   h) Structural and Functional unit of kidneys.
   i) A component of blood which carryco $_2$.
   j) An enzyme which digest Fat.
   k) Control centre of Reflex Action.
   l) An example of Anabolic process.
   m) A membrane which covers Heart.

5. **Very – short Answer Type Questions:-**
   a) Define Translocation.
   b) What is peristalsis?
   c) What are the two stages of photosynthesis?
   d) Name the two steps of Respiration.
   e) Name two end products of anaerobic respiration.
   f) What do you mean by Ascent of sap in plants?
   g) Name three main excretory products of Human.
   h) What is Synapse?
   i) What are hormones? Give two examples.
   j) What are endocrine glands? Give two examples.

6. *Project work:*
   Making Corona virus 3D craft Model.

(संस्कृत)

1. विद्याविषयम् दश श्लोकान् लिखत –

2. स्वपरिचयम् लिखत –

3. अधोलिखित वाक्यानां वाच्यपरिवर्तनं कुरूत –

      I.   रामः पाठं पठति।

      II.   लतया पुष्पाणि चीयन्ते।

      III.   अहं पत्रं लिखामि।

      IV.   गवा तृणानि भक्ष्यन्ते।

      V.   विद्या विनयं ददाति।

      VI.   सः पत्रं लिखति।

4. संस्कृते अनुवादं कुरूत –

      I.   चाणक्य अर्थशास्त्र के विद्वान् थे।

      II.   वे पटना में रहते थे।

      III.   मेरे पिता संस्कृत के विद्वान थे।

      IV.   मैं भी संस्कृत का विद्वान बनूँगा।

      V.   हमलोगों को संस्कृत प्रतियोगिता में भाग लेना चाहिए।

5. उद्यमस्य महत्वं वर्णयतः पंचश्लोकान् लिखत। (परियोजनाकार्यम्)

(हिन्दी)

I. निम्नलिखित प्रश्नों के उत्तर 30 से 40 शब्दों में लिखें–

1.   सूरदास की गोपियाँ स्वयं को भोली क्यों कहती हैं?

2.   गोपियों का योग साधना के प्रति कैसा दृष्टिकोण है?

3.   गोपियाँ किसका प्रतीक हैं? कृष्ण के प्रति उनका प्रेम भाव क्या सिद्ध करता है?

4.   लक्ष्मण धनुष टूटने में राम को दोषी नहीं मानते हैं, क्यों?

5.   शूरवीर अपनी वीरता का परिचय किस प्रकार देते हैं?

6.   परशुराम ने विश्वामित्र से लक्ष्मण के विषय में क्या कहा?

7.   लक्ष्मण के अनुसार परशुराम द्वारा धनुष तथा कुठार धारण करना व्यर्थ क्यों है?

8.   मूर्ति में किस चीज की कमी थी जो आँखों को खटकती थी?

9.   कैप्टन द्वारा बार-बार मूर्ति की आँखों पर चश्मा लगाना क्या संदेश देता है?

10. "उनका बेटा बीमार है, इसकी खबर रखने की लोगों को कहाँ फुरसत" कथन का आशय स्पष्ट करें।

11. नवाब साहब ने खीरा फेंक दिया क्यों?

12. "नवाब साहब खीरा खाने की तैयारी और इस्तेमाल से थककर लेट गए" पंक्ति में निहित व्यंग्य स्पष्ट करें।

13. सेनानी ना होते हुए भी चश्मे वाले को लोग कैप्टन क्यों कहते थे?

14. मोह और प्रेम में क्या अंतर है बाल गोविंद भगत रेखाचित्र के आधार पर स्पष्ट करें।

15. नेताजी सुभाष चंद्र बोस के व्यक्तित्व और कृतित्व पर एक प्रोजेक्ट बनाएँ।

II. निर्देशानुसार उत्तर लिखें–

1. निम्नलिखित काव्य पंक्तियों में अलंकार पहचान कर उनके नाम लखें -

   a) ''रति–रति शोभा सब रती के शरीर की।'

   b) 'आरसी से अंबर में आभा सी उजारी लगे।'

   c) 'कंकन किंकनि नुपूर धुनि सुनि।'

   d) 'चरण-कमल बंदौं हरिराई।'

   e) 'जेते तुम तारे तेते नभ में न तारे हैं।'

2. निम्नलिखित शब्दों के पाँच–पाँच समानार्थी शब्द लिखें–

   1. निशीथ   2. अग्नि   3. कानन   4. नरम   5. सेना

3. विलोम अर्थी शब्द लिखें–

   गाँव - _____ जमीन - _____ क्ष णक - _____

   एकत्र - _____ विनयशील– _____ कोप - _____

4. रेखांकित पदों का परिचय दें -

   1) <u>करीम</u> ने छोटी <u>बहन</u> के लए मिठाई खरीदी।

   2) <u>मोहन</u> <u>घर</u> जाओ।

   3) <u>आपने</u> बुलाया था इसलिए <u>मैं</u> आया हूँ।

   4) <u>छोटे</u> बच्चे <u>ने एक लीटर</u> दूध पी लया।

5. पुस्तकालय में हिंदी की पुस्तकें तथा पत्रिकाएँ मंगवाने के लिए विद्यालय के प्रधानाचार्य को आवेदन पत्र लिखें।

6. <u>परियोजना कार्य:-</u>

   सूरदास, तुलसीदास एवं रसखान का साहित्यिक परिचय सचित्र प्रस्तुत करें।

   (प्रैक्टिकल की कॉपी में)

(उर्दू)

١۔ سبق نمبر ایک سے سبق نمبر پانچ تک کے تمام مضامین
اور نظموں کے مصنفین اور شعراء کا نام یاد کرنا ہے
اور یہ مضامین صنف کے اعتبار سے لکھا ہے اسے بھی یاد
کرنا ہے ۔

٢۔ "بے تکلفی" اور "قول کا پاس" کہانی کو یاد کرکے مختصر طور پر
اپنی زبان میں سنانا ہے ۔

٣۔ نظم "حمد" اور "نیکی اور بدی" نظم کو زبانی یاد کرنا ہے ۔

٤۔ ہیڈ پرنسپل کے پاس درخواست لکھ کر گذارش کیجیے کہ
آپ کا سیکشن تبدیل کیا جائے اور اس کی وجہ بنائیے ۔

٥۔ سبق نمبر ایک سے سبق نمبر تین تک کے تمام الفاظ
کے معنی لکھ باد کیجیے ۔

٦۔ سبق نمبر ایک سے سبق نمبر تین تک الفاظ جو جملوں
میں استعمال کے لیے دیے گئے ہیں انہیں جملوں میں استعمال کیجیے؟

٦۔ نصاب میں شامل ایسے الفاظ جو واحد ہیں انہیں نکال کر اس کا
جمع بنائیے ۔

(ENGLISH)

Answer all the given questions in beautiful handwriting in a separate summer vacation homework notebook:-

Q.1. You are Rohit/Reena. Write an article on the topic, 'India-A Tourist's paradise', in 100-150 words.

1. A vast Country
2. Diversity of culture,
3. Variety of races,
4. Climate-hills, rivers, plains, deserts
5. Places of pilgrimage
6. Huge coastline
7. Friendly beaches
8. Modern cities

Q.2. Computers have become a rage with children. Young children are generally glued to their computers. Computers play a major role in today's age, but one must understand its functions as a major distraction. Write an article, in about 100-150 words, highlighting the role of computers and also pointing out the hazards their excessive use can cause. You are Nikhil/Neha.

Q.3. Arrange the following jumbled up words & phrases into meaningful sentences:-

(i) for/me/my/my/birthday/puppy/parents/cute/gifted/little/a

(ii) the/he/I/him/time/Tommy/tail/all/because/his/wags/call

(iii) and/I/him/the/I/him/from/when/return/take/garden/play/to/with

(iv) the/and/cup/seeds/my/them/garden/collect/I/from/plant/in

(v) told/to/my/had/mother/bicycle/me/out/my/not/go/on

(vi) her/when/the/disturbed/sleeping/i/was/afternoon/she/in

(vii) alike/a/that/cricket/old/attracts/is/game/young/and

(viii) the/of/since/ball/have/my/days/had/great/fascination/I/childhood

Q.4. **(a) Editing:-**   **Incorrect**

Correct

spending time in your kids	(a)_____ _____
bring immediate as well as long	(b)_____ _____
term gain for the parents	(c)_____ _____
According to a research, children of a	(d)_____ _____
involved parent were more efficient	(e)_____ _____
and get in better with their peers.	(f)_____ _____

(b) Omission: -

	Before	Missing word	After
I badly wanted learn swimming (a)	_____	_____	_____
so I hired a trainer who train me (b)	_____	_____	_____
for a month. After training was complete (c)	_____	_____	_____
I tried to swim alone, without (d)	_____	_____	_____
anyone navigating me. I jumped the (e)	_____	_____	_____
pool which was three deep at one end(f)	_____	_____	_____

and eleven at the other. Icy horror grabbed my heart.

Q.5. Answer the following questions:-

(i) What kind of a person do you think the narrator, a veterinary surgeon, is? Would you say he is tactful as well as full of common sense?

(ii) How does Ausabel manage to make Max believe that there is a balcony? Attached to his room? Look back at his detailed description of it. What makes it a convincing story?

(iii) Justify the title of the story 'The Hundred Dresses'.

(iv) Bring out the contrast between two friends Peggy and Maddie.

(v) Draw a character sketch of Anne Frank.

(vi) How did Anne respond to the punishment given by Mr. Keesing?

(vii) 'The Diary of Anne Frank' is a work of an insightful mind of a young girl. Explain.

(viii) From beginning to the end of the lesson 'Black Aeroplane' is a mystery. How?

(ix) Compare and contrast the young seagull in the beginning and at the end of the lesson.

(x) Write a note on Nelson Mandela's contribution for the emancipation of South African people.

Q.6. Design a poster on 'Waste management'.

Q.7. Make a comic strip based on chapter- "A Triumph of Surgery" and find out at least 20 adjectives from the chapter and write their degrees.

Q.8. Complete the following news reports with given headlines:-

(a) Corona Virus India Lockdown Day 86 updates/supreme court rejects plea for directing centre to move ICJ for compensation from China._____

(b) India elected as non-permanent member of UN Security Council for 8th time._____

(c) Indian intel agencies warn against use of 52 apps with links to China.____

(d) Unidentified balloon – like object seen in Japanese sky. _____

(SOCIAL SCIENCE)

1. Short answer Questions:-

a) What is the vision of French painter Sorrieu called?

b) Which two groups have crossed the statue in Sorrieu's painting?

c) Who made the painting of Germania in 1848?

d) Which language was made official in 1956 in Sri Lanka?

e) Write the full form of BMI, HDI and UNDP.

f) Which organisation gives HDI ranking to nations?

g) Who unified German states into a nation?

h) Growth is -------------- but development is -----------.

i) War among communities with in a country is called a -----.

j) Secondary sector is also called ----------------.

2. Short descriptive Questions:

a) Give two reasons why power sharing is necessary.

b) Define nationalism.

c) Write how is BMI calculated.

d) What is horizontal distribution of power?

e) Which factors are taken into analysis while calculating HDI rank?

f) Define the types of federations.

3. Long answer Questions:-

a) Which steps taken in France created a sense of collective belonging?

b) Write in brief about the modern forms of power sharing.

c) What is UNDP? How does it define development?

d) Write any five features of federalism.

e) Highlight the language policy in India.

f) How were linguistic states created in our Country?

g) What is GDP? Can you tell GDP is a good indicator of an economy?

h) How is the tertiary Sector different from other sectors?

i) How was Germany unified?

4. Map skills:-

a) Draw a political map of Italy before and after unification. Highlight the earlier states also.

b) Draw a political map of Belgium. Highlight its linguistic regions also.

★ ★ ★