The Millennium School HMEL

Holiday Assignment
Class - x
Session - 2018-19

Dear Students,

At last the much awaited summer vacation has begun. It is a time for relaxation and enjoyment. As important as it is to rest & enjoy, it is also important to continue to learn.

Strike a balance between work and play and allow yourself to grow in the process. Let vacation time be a doorway to creativity, learning, growth and joy. We have planned some very interesting Holiday Assignments/Projects for you this vacation. These projects have been chosen with a lot of deliberation. Utmost care has been taken to ensure that you use your creativity, your innovative ideas and your imagination to shape your projects into beautiful, wonderful 'creations'.

We are giving you interesting activities and worksheets based on **Flip Learn Prime Modules**. Do them as instructed and submit your work after the vacation

Important Note:

It is mandatory to submit Holiday Assignments to all the subject teachers by 11th July 2018.

Marks are allotted for these Assignments and will be added in your Term-I subject enrichment activities/note book submission.

Relax, enjoy, have loads of fun and come back refreshed!!!

Warm Regards

ENGLISH

1.Google search all about the art of story narration and select your favorite story narrator. Select any two compositions and give them a twist in your own way.(In terms of plot, Characterization and expression). Write it in your note book.

2. Conceive a thought provoking idea and shoot a video to be utilized on a platform like TED TALKS.(Mandatory) . Refer to You tube Videos for a better understanding.

3.Make an intense research on all the important poetic devices and pen down few examples of each one of them.

4 Watch the movie ,The story of my life for a better understanding of the novel.

MATHEMATICS

CHAPTER – 01

1: For some integer m, every even integer is of the form
(A) m (B) m + 1 (C) 2m (D) 2m + 1

2: For some integer q, every odd integer is of the form
(A) q (B) q + 1 (C) 2q (D) 2q + 1

3: n 2 − 1 $isdivisibleby$ 8, $ifnis$
(A)an integer (B) a natural number (C) an odd integer (D) an even integer

4: If the HCF of 65 and 117 is expressible in the form $65m$ − 117,
then the value of m is
(A)4 (B) 2 (C) 1 (D) 3

5: The largest number which divides 70 and 125, leaving remainders 5 and 8 respectively, is

(A) 13 (B) 65 (C) 875 (D) 1750

6: Write whether every positive integer can be of the form $4q$ + 2, where q is an integer. Justify your answer.

7: Write whether the square of any positive integer can be of the form 3m+2, where m is a natural number. Justify your answer.

8: A positive integer is of the form $3q$ + 1, q being a natural number. Can you write its square in any form other than $3m$ + 1,i.e., $3mor$ $3m$ + 2 for some integer m? Justify your answer.

9: Show that the square of any positive integer is either of the form 4q or 4q + 1 for some integer q.

10: Use Euclid's division algorithm to find HCF of 441, 567 and 693.

11: On a morning walk, three persons step off together and their steps measure 40 cm, 42 cm respectively. What is the minimum distance each should walk, so that each cover the same distance in complete steps?

CHAPTER – 02

1: Graphically, the pair of equations 6x – 3y + 10 = 0 and 2x – y + 9 = 0 represents two lines which are
(A) intersecting at exactly one point. (B) intersecting at exactly two points.
(C) coincident. (D) parallel.

2: The pair of equations x + 2y + 5 = 0 and –3x – 6y + 1 = 0 have
(A) a unique solution (B) exactly two solutions (C) infinitely many solutions (D) no solution

3: If a pair of linear equations is consistent, then the lines will be
(A) parallel (B) always coincident (C) intersecting or coincident (D) always intersecting

4: The pair of equations y = 0 and y = –7 has
(A) one solution (B) two solutions (C) infinitely many solutions (D) no solution

5: The pair of equations x = a and y = b graphically represents lines which are
(A) parallel (B) intersecting at (b, a) (C) coincident (D) intersecting at (a, b)

6: For what value of k, do the equations 3x – y + 8 = 0 and 6x – ky = –16 represent coincident lines?
(A) 1 2 (B) − 1 2 (C) 2 (D) −2

7: If the lines given by 3x + 2ky = 2 and 2x + 5y + 1 = 0 are parallel, then the value of k is
(A) −5 4 (B) 2 5 (C) 15 4 (D) 3

8: The value of c for which the pair of equations cx – y = 2 and 6x – 2y = 3 will have infinitely many solutions is
(A) 3 (B) – 3 (C) –12 (D) no value

9: One equation of a pair of dependent linear equations is –5x + 7y = 2. The second equation can be
(A) 10x + 14y + 4 = 0 (B) –10x – 14y + 4 = 0 (C) –10x + 14y + 4 = 0 (D) 10x – 14y = – 4

10: A pair of linear equations which has a unique solution x = 2, y = –3 is

(A) x + y = –1 (B) 2x + 5y = –11 2x – 3y = –5 4x + 10y = –22

(C) 2x – y = 1 (D) x – 4y –14 = 0 3x + 2y = 0 5x – y – 13 = 0

11. For which value(s) ofλ, do the pair of linear equations$\lambda x+y= \lambda^2$and$x+\lambda y$ = 1have

(i) no solution?

(ii) infinitely many solutions?

(iii) a unique solution?

12. For which value(s) of *k* will the pair of equations

$kx+ 3y = k - 3$

$12x + ky = k$

have no solution?

13.For which values of *a* and *b,* will the following pair of linear equations have infinitely many solutions?

$x+ 2y = 1$

$(a – b)x + (a + b)y = a + b – 2$

14.By the graphical method, find whether the following pair of equations are consistent or not. If consistent, solve them.

(i) $3x + y + 4 = 0$ (ii) $x – 2y = 6$

$6x – 2y + 4 = 0$ $3x – 6y = 0$

(iii) $x + y = 3 3x + 3y = 9$

15.Draw the graph of the pair of equations $2x + y = 4$ and $2x – y = 4$.

Write the vertices of the triangle formed by these lines and the *y*-axis. Also find the area of this triangle.

16.A motor boat can travel 30 km upstream and 28 km downstream in 7 hours. It can travel 21 kmUpstream and return in 5 hours. Find the speed of the boat in still water and the speed of the stream.

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

18.The cost of 4 pens and 4 pencil boxes is Rs 100. Three times the cost of a pen is Rs 15 more than thecost of a pencil box. Form the pair of linear equations for the above situation. Find the cost of a pen anda pencil box.

19.The age of the father is twice the sum of the ages of his two children. After 20 years, his age will beequal to the sum of the ages of his children. Find the age of the father.

20.Two numbers are in the ratio 5 : 6. If 8 is subtracted from each of the numbers, the ratio becomes 4 : 5.Find the numbers.

PHYSICS

1. Call an electrician to your house and with his help in front of your parents look into the electric distribution box. Find out the placing and rating of MCB's, Electric meter and main fuse. Also find out whether the appliances are joined in series or parallel.

2. Answer the following questions based on the fliplearn module 3: Topic: Electricity

Q.1 Which instrument is used to measure the electric potential difference between two points in a circuit? How is it connected in the circuit and why?
Q.2 State the law relating the potential difference across a conductor and the current through it? State its limitations also.
Q.3 The V–I graph is a straight line that passes through the origin of the graph.What is an electric current? What is its unit and how do we define its direction?
Q.4 What does a switch do?
Q.5 What is the SI unit of electric charge? How many electrons make one coulomb ofcharge?
Q.6 Define the SI unit of current.

Q.7 Which instrument is used to measure the current flowing in a circuit? What is its ideal resistance?

Q.8 How is an ammeter connected in the circuit and why?

Q.9 In which smaller units can we measure the small amount of current flowing in the circuit? How are the related to the SI unit of current?

Q.10 Write the difference between direct and alternate current

Q.11 State the energy conversion taking place in (a)Electric cell (b) Electric torch

Q.12 Define the electric potential difference between two points in an electric circuit carrying some current.

Q.13 Define the SI unit of Electric potential.

Q.14 What do you conclude from this observation?

Q.15 Define resistance of a material. Define its SI unit.

Q.16 Which common factor affects both resistance as well as resistivity and how?

Q.17What is the difference between resistance and resistor?

Q.18 What are the factors on which the resistance of conductor depends? Give the corresponding relation.

Q.19 Calculate the resistance of a 2m long nichrome wire of radius 0.321mm. Resistivity of nichrome is 15×10^{-6} Ω m. If the potential difference of 10v is applied across this wire, what will be the current in the wire?

Q.20 Derive an expression for the equivalent resistance of three resistances connected in series?

Q.21 Derive an expression for the combination of three resistances connected in parallel.

Q.22 Express Ohm's law both by a mathematical formula and by a graph.

Q.23 Derive an expression for the heat produced in a resistor R when a voltage drop across it is V. Hence state Joule's law of heating. Describe some practical applications of heating effect of the electric current.

Q.24 Alloys are commonly used in electrical heating devices. Why?

Q.25 When a number of resistors are connected in series in a circuit what would be their equivalent resistance and why?

Q.26 What is heating effect of electric current? Name the various devices in which this effect is utilized.

Q.27 The bulbs are usually filled with few gases. Name those gases. Also discuss the cause for the same.

Q.28 How does a fuse work in the electric circuit?

Q.29 Which materials are preferred for a fuse wire and why?

Q.30 Give the ratings of various fuses used in the domestic circuit.

SHORT ANSWER TYPE QUESTIONS

Q.31 Define the commercial unit of energy. Relate it to joules.

Q.32 An electrical heater is used on a 220V supply and takes a current of 5A. What is its power?
What is the cost of using the heater for 50 hours if 1 KWh costs Rs. 4.00?

Q.33 Two lamps one rated 60W at 220V and the other 40W at 220V are connected in parallel to the electric supply at 220V.
a) Draw a circuit diagram to show the connections.
b) Calculate the current drawn from the electric supply.
C) Calculate the total energy consumed by two lamps together when they operate for one hour.

Q.34 What will happen when
a) Voltmeter is connected in series?
b) Ammeter is connected in parallel?

Q.35 A parallel combination of two equal resistors is connected in series with a third resistor of resistance of 4 Ω if the combined resistance of three resistors is 5 Ω, find the resistance of the resistor in parallel combination .If a current of 2A is flowing through 4 Ω resistor, find the voltage across each of the parallel resistors.

Q.36 Which has more resistance: 100W bulb or 60W bulb?

Q.37 A wire of resistance 5W is bent in the form of a closed circle. What is the effective resistance between the two points at the end of any diameter of the circle?

Q.38 Two wires A and B are of equal lengths, different cross-sectional areas and made of the same metal.
(i) Name the property which is same for both the wires.
(ii) Name the property which is different for both the wires.
(iii) If the resistance of wire A is four times the resistance of wire B, calculate
(a) the ratio of the cross-sectional areas of the wires.
(b) the ratio of the radii of the wires.

Q.39 A is 4. resistor of 8 Ω is connected in parallel with another resistor X. The resultant resistance of the combination 8 Ω. What is the value of X?

Q.40 How will you connect three resistors of 2 Ω, 3 Ω, 5 Ω respectively so as to obtain a resultant resistance of 2.5 Ω ? Draw the diagram to show arrangement.

Q.41 A wire of resistance 5 Ω is bent in form of closed circle. What is the effective resistance between the two points at ends of any diameter of circle?

Q.42 How much work is done in moving a charge of 3 coulomb from a point at the volts 115 to a point at 125 volts?[30j]

Q.43 A is 4. resistor of 8 Ω is connected in parallel with another resistor X. The resultant resistance of the combination 8 Ω. What is the value of X?

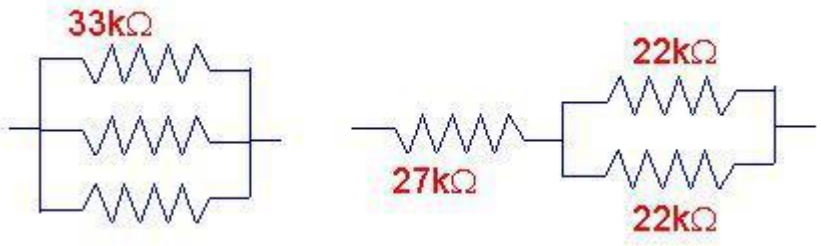
Q.44 How will you connect three resistors of 2 Ω, 3 Ω, 5 Ω respectively so as to obtain a resultant resistance of 2.5 Ω ? Draw the diagram to show arrangement.

Q.45 A wire of resistance 5 Ω is bent in form of closed circle. What is the effective resistance between the two points at ends of any diameter of circle?

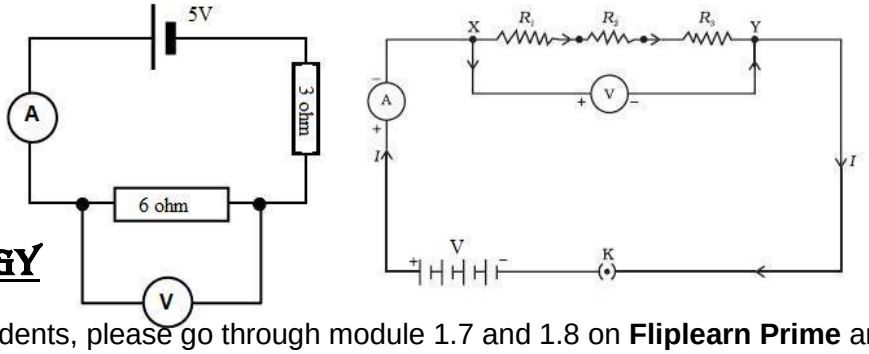
Q.46 How much work is done in moving a charge of 3 coulomb from a point at the volts 115 to a point at 125 volts?[30j]

Q.47 Calculate (i) its resistance while glowing (ii) energy consumed in kWh per day.
Q.48 A bulb is rated at 5.0 volt, 100 mA. Calculated its (i) power (ii) resistance.
Q.49 A wire of resistance 'R' is stretched by 50%. What will be percentage change in its resistance?
Q.50 The resistance of 100 W bulb is less than resistance of 40 W bulb. Explain the reason.
Q.51 Derive the equation for resultant resistance of Resistors in series
Q.52 How much work is done in moving a charge of 3 coulomb from a point at the volts 115 to a point at 125 volts?

Q.53 If circuit is arranged as shown in the figure, then find the equivalent resistor:



Q.54 Find the reading of voltmeter and ammeter in the circuits as shown if the following figures:



BIOLOGY

Dear students, please go through module 1.7 and 1.8 on **Fliplearn Prime** and solve the following questions in your biology notebook :

Q1. "The breathing cycle is rhythmic whereas exchange of gases is a continuous Process." – Justify this statement.

Q2. Write three differences between arteries and veins.

Q3. Mention the two main components of the transport system in plant. State one function of each of these components.

Q4. Write the function of each of the following components of the transport system in human beings :

a) Blood vessels
b) Lymph
c) Heart

Q5. What is translocation ? Why is it essential for plants ? Where in plants are the following synthesised :

(a) Sugars (b) Hormones

Q6. Draw a labelled diagram of the pumping machine in human beings.

Q7. What will happen if platelets were absent in the blood ?

Q8. What would be the consequences of a deficiency of haemoglobin in our bodies ?

Q9. Describe double circulation in human beings. Why is it necessary ?

Q10. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structure and functioning.

Q11. Draw a well labelled diagram of nephron.

Q12. What are the methods used by plants to get rid of their waste products ?

Q13. (a) State the role of valves present in heart.

(b) Why is it necessary to separate oxygenated and deoxygenated blood in mammals ?

Q14. Plants absorb water from the soil. How does this water reach the tree tops ?

Q15. (a) What are the three mains groups of excretory wastes found in animals ?

(b) Mention four nitrogenous waste produced by animals.

CHEMISTRY

CBSE Project

You are required to collect information on the following projects or any other topic of your choice relevant to class X and present it along with your project report as a part of your summer holiday homework.

Suggested topics for working/ non- working model

1. To prepare ecofriendly soaps.
2. 3-D model of structure of an atom.
3. How to make pollution catcher.
4. How to make water purifier.
5. How to make water dispenser using cardboard.

Submit your model on July 11th 2018.
It will be assessed as your Half Yearly Project, which carries 15 marks. Presentation of the same will be conducted on July 11th 2018.

Assessment: Assessment will be done on the basis of :

(i) Content	:	5 marks
(ii) Research work:		5 marks
(iii) Aesthetic sense/ presentation:		5 marks

Refer:-
icbse.com or chemistry lab manual for the relevant topics of model.

TASK 2:-

Watch the Module-1- Chemical reactions and equations,Book1-
Chemistry on Fliplearn Prime and answer the following Questions:-

Q1. Which gas is added to chips packets so as to prevent them from rancidity?

Q2. Name the type of reaction which involves oxidation and reduction reaction simultaneously.

Q3. Name the gas which evolves when dilute hydrochloric acid is added to iron filings?

Q4. Why should a magnesium ribbon be cleaned before burning in air?

Q5. Why gold and silver do not corrode?

Q6. Write the balanced equation for the following chemical reactions.
(i) Hydrogen + Chlorine → Hydrogen chloride
(ii) Barium chloride + Aluminiumsulphate → Barium sulphate + Aluminium chloride
(iii) Sodium + Water → Sodium hydroxide + Hydrogen

Q7 Balance the following chemical equations:
(i)

(a) $HNO_3 + Ca(OH)_2 \longrightarrow Ca(NO_3)_2 + H_2O$

(b) $NaOH + H_2SO_4 \longrightarrow Na_2SO_4 + H_2O$

(c) $NaCl + AgNO_3 \longrightarrow AgCl + NaNO_3$

(d) $BaCl_2 + H_2SO_4 \longrightarrow BaSO_4 + HCl$

(ii) Write the type of reaction in rusting of iron.

TASK 3.

Practice all NCERT Exercise and NCERT Exemplar questions of Ch-1 in your assignment notebook.

HISTORY

Ch 6 :

1. **Summarise the attributes of a nation, as Renan understands them. Why in his view are nations important? Give your answer on A4 sheet.**
2. **Plot on a map of Europe the changes drawn by the Vienna Congress.**

ECONOMICS

Complete the work in your notebook and submit it in the first week of July.

1)Watch the Fliplearn Prime video of the chapter Development.

2)Answer the following questions in your notebook.

a) Give few examples of developed and developing countries.

b) Briefly mention the factors which are important goals in your life.

c) Describe any three features of a developed country.

d) What should India do to become a developed country ? Discuss.

e) Write a note on Body Mass Index.

CIVICS-

Chapter- Power Sharing & Federalism , watch module 2.2 .

Write an essay of about 150-200 words on Power sharing in Belgium and Srilanka..

GEOGRAPHY –Chapter –Water Resources- watch module 3.1-Why and how to manage water resources?

Conduct a survey in your neighbourhood (visit atleast five families) and talk to them about importance of water resources. Prepare a questionnaire and get it filled by them. Compile the questionnaire and responses in a file.

DISASTER MANAGEMENT- Thunder storm creates a havoc and we need to take precaution in case of its occurrence. Discuss its impact with elders and your friends and write it down on an A 4 size sheet. Make a list of Do's and Don'ts in case of a thunder storm on an A 4 size sheet.

विषय - हिंदी

1 निम्नलिखित विषयों पर अनुच्छेद-लेखन लिखिए -

(क)महँगाई के बढ़ते कदम

संकेत बिंदु : कारण

प्रभाव

दूर करने के उपाय

(ख) मानवता सबसे श्रेष्ठ धर्म

संकेत बिंदु : मानवताक्या है ?

महापुरुषों का उल्लेख

लाभ

(ग) शांति किसे प्रिय नहीं है

संकेत बिंदु : भारत एक शांतिप्रिय देश

अहिंसा ही सबसे बड़ा धर्म

शांति से बढ़कर कोई हथियार नहीं

2 पेड़ -पौधों के अनियंत्रित कटाव को रोकने के लिए जिलाधिकारी को पत्र लिखिए |

3 बजली संकट और उससे उत्पन्न कठिनाइयों का वर्णन करते हुए 'राष्ट्रीयसहारा 'के सम्पादक के नाम पत्र लिखिए |

4 अपनी रचना (कहानी) प्रकाशित कराने के लिए किसी समाचार के सम्पादक को पत्र लिखिए

COMPUTER

This exercise will aid in your understanding of searching and researching on the World Wide Web (WWW) and in the use of e-mail.

The World Wide Web:

The World Wide Web, referred to as the Web, is the most popular use of the Internet along with e-mail. In the following exercise you will access different sites on the Web and learn searching techniques.

www.learnthenet.com

1. Explore the site. Try all or most of the links. Print whatever you like. Your goal is to become efficient at information retrieving off the Internet, building an Internet and email

vocabulary, and learning the basic skills and knowledge associated with everyday usage. The following questions are all taken from this site. You may use other sources if ike. Some of the How To links to investigate on the LearnTheNet site are Master the Basics, Surf the Web, Harness E-mail, Find Information, and Protect Yourself.

2. Using the LearnTheNet site or other resources, answer the following questions.

   a. What decade did the Internet start?

   b. What does URL stand for?

   c. The top-level domain names are com, edu, gov, int, mil, net, org, biz, info, and museum. What do these domain names mean?

.com _____
_____

.edu _____
_____

.gov _____
_____

.net _____
_____

.org _____
_____

.biz _____
_____

.info _____
_____

.museum _____
_____

3. What is the definition of link or hyperlink?

4. Name the two most popular browsers?

5. Define web browser.

6. Define search engines.

7. What is the purpose of the STOP button on the toolbar?

8. On what button do you click to view the previous page viewed?

9. What is a bookmark?

10. Study the section on Find Information to learn about search techniques. List five search engines by name.

1._____

2._____

3._____

4._____

5._____

11. Define the following terms :-

HTTP - _____

Blog - _____

Internet Banking - _____

TCP/IP_____

AND Operator - _____

12. Make a presentation on Network Configuration and the devices required to built a network for a school. Identify the topology will be suitable to build a network.

Punjabi

fw rwDw ikRSn kOx sn auhnW bwry ie`k cwrt iqAwr kro Aqy id`qw hoieAw swrw slybs Xwd kro [

HAPPY HOLIDAYS!