

HOLIDAY HOMEWORK 2019-20

CLASS-I

THEME- Go Green

*Homework of all the subjects has to be done in a common scrap book.

* Design your own scrapbook using eco friendly material. Write your name and paste your own picture on the cover.

ENGLISH

1. Write and draw 20 words related to nature and encircle vowels.
2. Learn poem "Put On A Smiling face".
3. Read a story book and write its name and main character of the story.
4. Write 10 pages handwriting in English notebook.

HINDI

१. किन्ही 10 पशु या पक्षियों के चित्र चिपकाकर उनके नाम का पहला अक्षर लिखें |
२. "तितली" कविता याद करें |
३. लेखन सुधार हेतु 10 पृष्ठ सुलेख अभ्यास पुस्तिका में लिखें |
४. ग्रीष्म कालीन अवकाश में हिन्दी की कहानियाँ पढ़िए |

MATHS

1. Paste picture - Big/Small.

More/Less

2. Eat fruits during vacations and write tables of 2 and 3 using their seeds.

Example: $2 \times 1 =$



$2 \times 2 =$



EVS

1. Paste 5 fallen dried leaves and write their names .
2. Plant a seed in a pot and click a picture with it after it becomes a sapling.
3. Feed the birds and keep a water pot for them.
4. Draw and colour your favorite fruit.

CLASS-II

THEME- SUMMER SEASON

*Homework of all the subjects has to be done in a common scrap book.

* Design your own scrapbook using eco friendly material. Write your name and paste your own picture on the cover.

ENGLISH

1. Write a fun poem on summer season and use your imagination to draw a picture.
2. Write words related to summer and encircle the vowels.
3. Read a story book over a period of holiday and draw your favorites character from it.
4. Write 10 pages writing in notebook.

HINDI

1. ग्रीष्म ऋतु पर एक सुन्दर कविता लिखिए |
2. ग्रीष्म ऋतु का चित्र बनाकर उसके बारे में 5 वाक्य लिखिए |
3. ग्रीष्म ऋतु में पाए जाने वाले 4 - 4 फलो और फूलो के चित्र चिपका कर उनके नाम लिखिए |
4. ग्रीष्मकालीन अवकाश में आपके द्वारा पढ़ी गयी कहानियो में से अपने प्रिय पात्र के विषय में 5 वाक्य लिखिए |
5. लेखन सुधार हेतु 10 पृष्ठ सुलेख अभ्यास पुस्तिका में लिखे |

MATHS

1. Collect small objects such as stick, newspaper balls, grass ,dry leaves, flowers etc. Make a picture pattern or design in your scrap book.
2. Count and write the total number of objects as well as the number of each types of objects.
3. Learn tables from 2 to 9.

EVS

1. Collect different types of leaves and make 5 shapes using them.
2. Collect seeds of different fruits eaten by you during summer vacation .Sow them and paste the picture of your mini nursery in the scrapbook.

CLASS-III

THEME- FLORA AND FAUNA

- * Homework of all the subjects has to be done in a common scrapbook
- * Design your own scrapbook using eco-friendly material . Write your name and paste your own picture on the cover.

ENGLISH

- (1) List the name of 5 pet animals and 5 wild animals and paste their pictures.
- (2) Write 5 lines on your favourite bird or animals.
- (3) Write 10 pages of writing in notebook.

HINDI

1. फूलो से सम्बंधित एक कविता लिख कर एक चित्र बनाओ |
2. पांच विभिन्न फूलो के चित्र चिपका कर नाम लिखो |
3. लेखन सुधार हेतु 10 पृष्ठ सुलेख अभ्यास पुस्तिका में लिखे |

MATHS

1. By using different geometrical shapes draw a bird and animal of your own choice.
2. Complete the following patterns:

Flower Counting Patterns

The children are counting around the flowers. Start counting on the colored petal and finish the pattern in each flower by adding the last number in the pattern.

For solution see page 28.

Games 4 Learning www.teacherspayteachers.com/Store/games-4-learning ©Teresa Evans 2013 14

EVS:

- (1) Plant a sapling on world Environment Day on 5th June and paste your picture in the scrapbook.
- (2) Write name of any 5 National Parks and Bird Sanctuaries in India and write the names of flora and fauna found there.
- (3) Visit a zoo and paste a picture.

CLASS - IV

THEME: IPL 2019

Homework of all subjects has to be done in a common scrapbook.

Design your own scrapbook using eco friendly material. Write your name and paste your own picture on the cover.

ENGLISH:

1. Creative writing of 8 lines: "If you are selected as a player for any IPL team."

2. Paste picture of any 5 favourite player of IPL Team and write about any 1 of them and draw the logo of your favourite team.
3. Write 10 pages writing in your notebook.

HINDI:

1. आईपीएल से सम्बंधित एक कविता लिखिए |
2. आईपीएल से सम्बंधित समाचारों को एकत्रित करके **COLLAGE** बनाइए |
3. २०१९ के चयनित विजेता टीम का चित्र चिपकाकर उनके बारे में 5 वाक्य लिखो |
4. लेखन सुधार हेतु 10 पृष्ठ सुलेख अभ्यास पुस्तिका में लिखो |

MATHS:

1. Note down the runs scored by your favourite IPL Team in all the matches and arrange them in ascending order.
2. Write the run rates of the top 2 teams of IPL2019.
3. Write the match statistics of your favourite cricket player (runs, run-rate, etc.) along with his picture.
4. Learn tables from 2 to 15

EVS:

1. Mark the states of any five IPL Teams on Political Map Of India.(Kings XI Punjab - Punjab)
2. Find out and enlist which games your parents and grandparents used to play in their childhood.
3. Design your own game and write its rules.

CLASS - V

THEME- ELECTION 2019

- * **Homework of all the subjects has to be done in a common scrapbook**
- * **Design your own scrapbook using ecofriendly material. Write your name and paste your own picture on the cover.**

ENGLISH:

1. Write 20 words related to elections from newspaper, magazines etc.
2. Cut out the words arrange them in alphabetical order and stick them in a scrapbook.
3. Find the meanings of these words using a dictionary and write them down.
4. Read a story book over a period of holiday and illustrate your favourite character with its picture.
5. Write 10 page writing in notebook.

HINDI:

1. चुनाव से सम्बंधित एक कविता लिखिए |
2. चुनाव से सम्बंधित समाचारों को एकत्रित करके कोलाज बनाओ |
3. २०१९ के चयनित नए प्रधान मंत्री का चित्र चिपका कर उनके बारे में ५ वाक्य लिखो |
4. लेखन सुधार हेतु 10 पृष्ठ सुलेख अभ्यास पुस्तिका में लिखो |

MATHS:

1. Write the numbers of seats won by major political parties.
2. Write the number of votes secured by any 5 political leaders.
3. Represent these numbers in Indian and International system and write their number names.
4. Learn tables from 2 to 15

EVS:

1. Paste pictures of symbols of any 5 leading Indian political parties.
2. If you were to form a political party-
3. What would you name it?
4. Design your party symbol and write a party slogan.

CLASS -VI

ENGLISH

1. Read English newspaper daily. Write five news headlines. Write five difficult words, their meanings and make sentences of these five words.
2. Write a short story of 100 words in your own words.
3. Revise syllabus of first term.

HINDI

1. अपने गली मुहल्लों में आने वाले किन्ही दस फेरी वालों से उनकी शिक्षा परिवार आमदनी और उनके बच्चों के संबंध में बात करके एक भेंटवार्ता लिखिए।
2. गर्मी की छुट्टी में अपने किसी रिश्तेदार के साथ बिताये समय पर एक संस्मरण लिखें।

MATHEMATICS

Answer the following questions:-

Q1. The distance between Ritika's home and her school is 5km 65m. Everyday she walks both ways. Find the total distance covered by her in 6 days? if her walking speed is 5km/hour, then find the time taken by her in one day? What are the advantages of walking?

Q2. Write all four digit numbers that can be formed with the digits 4 & 5, by using both digits equal number of time. Also find their sum.

Q3. What is the difference between the smallest 6-digit number with different digits & the greatest 5-digit number with different digits?

Q4. ESTIMATE –

(i) $2894 + 3412 + 5656$

(ii) $7012 - 3418$

By rounding off to the nearest:

(I) Tens (II) hundreds (III) thousands

Q5. Write in Roman Numerals :-

(a) 786 (b) 2020 (c) 1234

Q6. Show the following digits on number line:

(i) -5 (ii) -9 (iii) 0 (iv) +7 (v) +10

Q7. Solve by Expanding the brackets:-

(i) 12×106 (ii) 105×101 (iii) 3×102

SCIENCE

Topic - FIBRE TO FABRIC (chapter 3 of the textbook)

Printed in the smart skill with the rubric on pg 89-90

Since time immemorial, natural fibres have been used for apparel and home fashion .Today many man-made fibres have been developed into beautiful fabrics that are being used by major designers. This summer break has a great time sorting out your clothes and engaging with the given activity. Hope you enjoy doing this!

A. Reading and Understanding – Begin with reading the chapter in the text book.

B. Research – Collect as many different pieces and scrapes of fibres and fabrics. Gather information on ANY ONE CHOSEN FABRIC under the following heads:

- i. Name of the fabric and its sources (Plant /animal/man-made.)
- ii. Fabric and relevance of the region where it is used within India (cold and hot climate)
- iii. Fabric and relevance to the use (its purpose – (like for making bags, clothes, mats etc.)
- iv. Properties of the fabric like strength, durability, absorption of water etc.

C. Fabric assemblage /Collage – Now think of how you would like to present your collected fabrics as a collage.

- Take an A4 sheet of paper. Ensure that the Project is done on an A4 sheet.
- Prepare a collage on one side of the paper using the fabrics collected.
- Use the other side to present the information about one chosen fabric, that you collected under the Research head.

SOCIAL STUDIES

All the planets are named after ancient Greek and Roman gods. Find out :

- a) Which God each of the planet is named after, paste the picture of planet and associated God.
- b) Write any two interesting facts about each planet.

संस्कृत

1. निम्न के शब्दरूप याद कीजिए एवं लिखिए.

- i. बालक अकारांत पुल्लिंग
- ii. लता आकारांत स्त्रीलिंग
- iii. पुष्प अकारांत नपुंसकलिंग

3. निम्न के धातु रूप याद कीजिए एवं लिखिए.

- i पठ धातु वर्तमान काल
- ii पठ धातु भूतकाल
- iii पठ धातु भविष्यकाल

3. संस्कृत श्लोक से सुसज्जित एक बुकमार्क का निर्माण कीजिए .

GENERAL KNOWLEDGE

Write Nobel Prize winners of 2018 and paste their pictures in scrap book.

1. Write current affairs of May and June in scrap book.
2. Write newly appointed ministers after elections.

COMPUTER

1. Paste five input and four output devices pictures in computer notebook and label it.
2. Make a list of 7 storage devices and write the types of memory – Primary / Secondary in tabular format.
3. Make a list of five most popular software companies along with their CEO and Paste the photo of CEO on Notebook.

CLASS: VII

ENGLISH

1. Read English newspaper daily. Write five news headlines. Write five difficult words, their meanings and make sentences of these five words.
2. Write a short story of 100 words in your own words.
3. Revise syllabus of first term.

HINDI

- 1- अपने गली मुहल्लों में आने वाले सफाई कर्मी और कामवाली महिला से मिलकर उनकी पारिवारिक, सामाजिक, आर्थिक स्थितियों के बारे में बात करके एक भेंटवार्ता लिखिए।
- 2- गर्मी की छुट्टी में अपने किसी मित्र के साथ बिताये समय पर एक संस्मरण लिखें।

MATHEMATICS

Answer the following:

Q 1. Write down a pair of integers whose:

- i) Sum is (-3)
- ii) Difference is 2
- iii) Sum is 0

Q2. In a class test containing 15 questions 4 marks are given for every correct answer and (-2) marks are given for every incorrect answers:

- i) Arun attempts all questions but only 9 of his answers are correct. What is his final score?
- ii) One of his friends gets only 5 correct .What will be his score?

Q3. Eighteen integers are multiplied together. What will be the sign of the product, if:

- i) 15 of them are negative and 3 are positive?
- ii) 9 of them are positive and the remaining are negative.
- iii) All are negative.

Q4. Evaluate by applying suitable property: i) $625 \times 9 + 625$

ii) $1920 \times 101 - 1920$.

Q5. Arrange the following fractions in ascending order:

$$\frac{5}{12}, \frac{9}{16}, \frac{2}{3}, \frac{3}{4}$$

SCIENCE

Visit a doctor with your parent and find out:

- (i) Under what conditions does a patient need to be on a drip of glucose?
- (ii) Till when does a patient need to be given glucose?
- (iii) How does glucose help the patient recover?

Write the answer in a rough notebook.

1. Learn chapter 1 to 3
2. Write experiment no. 1 to 3 in lab manual.
3. Draw one diagram among these.

Human Digestive system.

Or

Arrangement of teeth and different types of teeth.

SOCIAL STUDIES

Collect information about any one Prashasti written during the Medieval period and give details under the following headings:

- a) Name of the ruler and the duration of his reign.
- b) Name of the Writer /Poet.
- c) Language / Script used.
- d) Explanation or important points of the Prashasti.

संस्कृत

1. निम्न के शब्दरूप याद कीजिए एवं लिखिए.

- i. तत सर्वनाम पुल्लिंग
- ii. तत सर्वनाम स्त्रीलिंग
- iii. तत सर्वनाम नपुंसकलिंग

2. निम्न के धातु रूप याद कीजिए एवं लिखिए.

- i. कृ धातु वर्तमान काल
- ii. कृ धातु भूतकाल
- iii. कृ धातु भविष्यकाल
- iv. कृ धातु लोट लकार
- v. कृ धातु विधिलिंग लकार

3. अभ्यास पुस्तिका -1 स्वयं से हल कीजिए .

COMPUTER

Make a list of all input and output devices in the computer laboratory in your school.

OR

Find out the operating system being used in your school and search the Internet for information on other operating systems.

CLASS-VIII

ENGLISH

1- Read any 3 stories and write any one review on it. It should consist of -

- (i) About the author
- (ii) Introduction of the story
- (iii) Title
- (iv) About the characters
- (v) Moral

2- Revise all the chapters that have been taught in the class.

HINDI

1. हिंदी भाषा क्षेत्र में ख्याति अर्जित करने वाली किन्हीं पांच कवयित्रियों / लेखिकाओं नामोल्लेख करते हुए प्रत्येक की एक एक रचना का सचित्र उल्लेख कीजिये।

2. ग्रीष्मावकाश में पर्यावरण संरक्षण में आपकी क्या भूमिका रही? इस विषय पर लगभग 30-40 पंक्तियों में अपने विचार लिखें।

MATHS

Write the answers in a separate Holiday H.W. copy:-

Chapter 1:- Rational Numbers

Ex- 1.1 Q-1, 2, 4, 5, 6 and 8.

Ex- 1.2 Q- 1, 2, 4, 5 and 7.

Chapter 2:- Linear Equations in one variable

Ex- 2.1 Q- 2, 4, 6, 8, 10 and 12.

Ex- 2.2 Q- 1, 3, 5, 7, 9, 11 and 15.

Ex- 2.3 Q- 1, 3, 5, 7, 9 and 10.

Ex- 2.4 Q- 1, 3, 5, 7, 8, 9 and 10.

Ex- 2.5 Q- 1, 3, 5, 8 and 10.

Ex- 2.6 Q- 1, 3, 5, 6 and 7.

On a normal size chart paper:-

Write(with examples):-

Properties of Addition of Rational Numbers

OR

Properties of Multiplication of rational numbers

SCIENCE:

1. Imagine yourself to be a young scientist and make a small model of any invention you would like to do :
 - a) Make a folder to document the following things about your invention.
 - b) Material/steps required for your invention.
 - c) How your invention is useful to mankind?
 - d) Motivation/ inspiration behind your invention.
2. Complete experiment no. 1 to 3 in lab manual.
3. Learn lessons 1 to 3

SOCIAL STUDIES:

- a) Draw a flowchart diagram in your Social Studies note book showing types of resources present in the nature.
- b) Collect at least 20 newspaper clippings showing different types of resources and paste them in your Social Studies note book.

संस्कृत

1. निम्न के शब्दरूप याद कीजिए एवं लिखिए.

i. अस्मद् सर्वनाम शब्दरूप

ii. युष्मद् सर्वनाम शब्द रूप

2. निम्न के धातु रूप याद कीजिए एवं लिखिए.

i. खाद् धातु वर्तमान काल

ii. खाद् धातु भूतकाल

iii. खाद् धातु भविष्यकाल

iv. खाद् धातु लोट लकार

v. खाद् धातु विधिलिङ लकार

3. अभ्यास पुस्तिका -1 एवं अभ्यास पुस्तिका -2 स्वयं से हल कीजिए .

COMPUTER

Write a short note on the followings term-

- (i) Hardware & Software
- (ii) More on MS-Word, Power Point & MS-Excel.
- (iii) Internet – Web Page, Website
- (iv) Some Mathematical Functions in MS- Excel

CLASS- IX

ENGLISH

1. Prepare a write up on any one of the following topic using pictures, bar graph, slogans, innovations and data in your file.
 - a. Save the girl child
 - b. Save the environment
 - c. Health and hygiene
2. Revise tenses and parts of speech.

HINDI

नाक, कान, आँख, दाँत, और बाल से जुड़े पाँच-पाँच मुहावरे लिखें, और इनका अर्थ स्पष्ट कर वाक्यों में प्रयोग भी करें।

MATHS

1. Locate $\sqrt{13}$ on the number line.
2. Write three numbers whose decimal expansions are non-terminating non-recurring.
3. Write two rational numbers between $\sqrt{2}$ and $\sqrt{7}$.
4. Visualize $3.7\overline{66}$ on the number line, upto 4 places of decimals using successive magnification.
5. If $\sqrt{3} = 1.732$, find the value of $\sqrt{27} - 3\sqrt{75} + 5\sqrt{48}$
6. Simplify:- $\frac{\sqrt{6}}{\sqrt{2}+\sqrt{3}} + \frac{3\sqrt{2}}{\sqrt{6}+\sqrt{3}} - \frac{4\sqrt{3}}{\sqrt{6}+\sqrt{2}}$
7. If $x = 1 - \sqrt{2}$, find the value of $(x - \frac{1}{x})^2$.
8. If $p = \frac{\sqrt{2}-\sqrt{5}}{\sqrt{2}+\sqrt{5}}$ and $q = \frac{\sqrt{2}+\sqrt{5}}{\sqrt{2}-\sqrt{5}}$, find the value of (i) $p - q$ and (ii) $p^2 - q^2$.
9. Write in the simplest form:- (i) $\sqrt[3]{2} \times \sqrt{5}$ (ii) $\sqrt[4]{4} \div \sqrt[3]{4}$
10. Arrange $\sqrt{2}$, $\sqrt[3]{4}$, $\sqrt[4]{5}$ and $\sqrt[4]{3}$ in ascending order.
11. Simplify :- $(2\frac{10}{27})^{2/3}$
12. Find the value of the polynomial $f(x) = 2x^4 + 9x^3 + 11x^2 + 4x - 6$ at $x = -3$.
13. Find the zeros of the polynomial $p(x) = (x - 2)^2 - (x + 2)^2$.
14. Using the remainder theorem, check whether $7 + 3x$ is a factor of $3x^3 + 7x$.
15. Using remainder theorem, check whether $p(x)$ is a multiple of $g(x)$ or not for the following polynomials:-
 $P(x) = 2x^3 - 11x^2 - 4x + 5$, $g(x) = 2x + 1$
16. If the remainder on dividing the polynomial $2x^4 - kx^2 + 5x - 3k + 3$ by $(x + 2)$ is 4, then find the value of k ?
17. The polynomials $ax^3 - 3x^2 + 4$ and $2x^3 - 5x + a$ when divided by $(x - 2)$ leave the remainder 'p' and 'q' respectively. If $p - 2q = 4$, find the value of 'a'.
18. If $x - 1$ and $x + 1$ are factors of $ax^3 + x^2 - 2x + b$, then find the values of 'a' and 'b'.
19. If $p(x) = x^3 - ax^2 + bx + 3$ leaves a remainder -19 when divided by $(x + 2)$ and remainder 17 when divided by $(x - 2)$, prove that $a + b = 6$.
20. If $f(x) = x^4 - 2x^3 + 3x^2 - ax + b$ is divided by $(x - 1)$ and $(x + 1)$, it leaves the remainder 5 and 19 respectively. Find the values of 'a' and 'b'.

BIOLOGY

CELL : THE FUNDAMENTAL UNIT OF LIFE: WORKSHEET -1

1. Name the largest cell
2. Name two cells with cell wall.
3. Name the animal cell which does not possess nucleus.
4. Name the stain used for staining onion peel cells
5. What is cell?
6. Who discovered cell?
7. Which is the longest cell in human body?
8. Who proposed cell theory?
9. Which chemical is used to stain human cheek cells?
10. While preparing temporary mount, why peels should be kept in water?
11. Why is cell called structural and functional unit of life?
12. What is cell made up of?
13. Who observed cell first time?
14. Why is red blood cells biconcave in shape?
15. Why are RBCs red in colour?
16. Cell wall is present in animal cell or plant cell?
17. What is the unit of nervous system?
18. What is nucleoid?
19. What is plasmolysis?
20. What is osmosis?

WORKSHEET- 2

1. Why are some organisms called unicellular?
2. What is the function of haemoglobin?
3. How do cells keeps us alive?
4. Give two important functions of cell?
5. Why does neuron has branched endings?

CHEMISTRY

CHAPTER 1: MATTER IN OUR SURROUNDINGS

1. The smell of hot sizzling food reaches you several meters away but to get the smell from cold food you have to go close. Why?
2. A piece of chalk can be broken easily but iron cannot, why?
3. Rubber band changes its shape. Is it solid?
4. What is matter?
5. Name the physical state of matter which can be easily compressed.
6. How is humidity related to evaporation?
7. Name a suitable technique to separate ammonium chloride from sand.
8. What is tincture of iodine?
9. Sponge is a solid but still it can be compressed, why?
10. Why solid carbon dioxide is called dry ice?
11. Differentiate between boiling and evaporation.
12. Define latent heat of fusion and latent heat of vaporization.
13. How is humidity related to evaporation?
14. Describe an activity to show that particles have space among them.
15. Compare the properties of solid liquid and gas.

PHYSICS

Q-1 Define the following-----

- a) Average velocity b) Acceleration c) Momentum d) Instantaneous Velocity
 e) Force f) Impulse g) Angular velocity

Q-2 Solve 20 numerical each of chapter motion and force

Q-3 Derive motions formulas (all three)

- a) By graphical method b) general method

Q-4 Write the details of two Indian scientists along with the photograph in about 150 words each

GEOGRAPHY

1. On an outline map of India mark all the important mountain ranges.
2. On a physical map of India mark the major rivers.
3. Mark the important historical ancient towns on a map of India.

HISTORY

Collect the detail information about the 1st General Election of Lok Sabha to 17th General Election of Lok Sabha.

INFORMATION TECHNOLOGY - 402 (COMPUTER)

Write a short note on the following terms-

- (i) Characteristics of a Computer (any four points)
- (ii) Applications of Computer
- (iii) Computer Networks
- (iv) The Input and Output Units
- (v) Storage devices

CLASS: X

MATHS:

1. Show that one and only one out of n , $n + 2$ and $n + 4$ is divisible by 3, where n is any integer.
2. Use Euclid's division algorithm to show that square of any positive integer is either of $3m$ or $3m + 1$ for some integer m .
3. Find the largest 3- digit number which is divisible by 12, 15, 18 and 20 leaving remainder 5 in each case.
4. In the morning walk three persons step of together. They step 80 cm, 85 cm and 95 cm respectively. What is the minimum distance each should walk so that he can cover distance in complete steps.
5. Find the largest positive integer that divide 398, 436 and 542 leaving remainder 7, 11 and 15 respectively.
6. Find the H.C.F of 65 and 117 and express it in the form of $65m + 117n$.
7. If d is the H.C.F of 56 and 72, find x and y satisfying $d = 56x + 72y$.
8. Express the H.C.F of 465 and 222 as $465x + 222y$, where x and y are integers.
9. Prove that $\sqrt{5} + \sqrt{3}$ is irrational.
10. Is it possible that two numbers have 16 as their H.C.F. and 380 as their L.C.M.
11. The length, breadth and height of a room is 8 m 25 cm, 6 m 75 cm and 4m 50 cm respectively. Find the length of the longest rod which can measure the dimensions of the room exactly.

12. For any positive integer 'n' prove that $n^3 - n$ is divisible by 6.
13. Prove that one and only one out of n , $n+2$, $n+4$ is divisible by 3, where n is any positive integer.
14. If n is a positive odd integer, then show that $n^2 - 1$ is divisible by 5.
15. Prove that one of any three consecutive positive integer must be divisible by 3.
16. If the H.C.F of 65 and 117 is expressible in the form of $65m - 117$, find the value of m ?
17. If $a = x^3y^2$, $b = xy^3$, find the H.C.F of a and b .
18. The decimal expansion of the rational number $\frac{14587}{1250}$ will terminate after how many decimal places?
19. Write the decimal form of the rational number $\frac{33}{2 \times 5}$ without actual division.
20. If α and β are zeros of the quadratic polynomial $f(x) = kx^2 + 4x + 4$ such that $\alpha^2 + \beta^2 = 24$, find the values of 'k'.

PHYSICS

Q-1 Define the following-----

- a) Mirror b) lens c) pole d) centre of curvature e) principal axis f) aperture g) magnification
- h) Reflection of light i)refraction of light j)refractive index k) atmospheric refraction

Q-2 Solve 15 numerical each based on mirror and lens also write the question

Q-3 Draw the ray diagram for the a) All cases of concave mirror b) All cases of convex lens

c) All cases of convex mirror d) All cases of concave lens

Q-4 Write the details of two Indian scientists along with the photograph in about 150 words each

HISTORY

Mahatma Gandhi was the first hero who had united entire India under a single umbrella during freedom movement of India. Prove it.

INFORMATION TECHNOLOGY - 402 (COMPUTER)

Write a short note on the followings terms-

- (i) Types of networks- PAN, LAN, MAN, WAN
- (ii) Advantages & disadvantages of networks
- (iii) Network Architecture- (i) Peer-to-Peer networks (ii) Client- server Networks
- (iv) Network components
- (v) Network topologies – Bus, Star, Ring, Tree & Hybrid topology with diagram.

CLASS- XI

ENGLISH

Prepare a write up on any one of the following topic using bar graph, pictures, slogans, innovations and data in your file.

- Protect endangered species
- Health and hygiene
- Cancer prevention

HINDI

Read the third chapter of Supplementary Book VITAN and solve all the questions.

BIOLOGY :

Very Short Answer Type Questions

1. Linnaeus is considered as Father of Taxonomy. Name two other botanists known for their contribution to the field of plant taxonomy?
2. What does ICZN stand for?
3. Couplet in taxonomic key means _____ .
4. What is a Monograph?

- Amoeba multiplies by mitotic cell division. Is this phenomena growth or reproduction? Explain.
- Define metabolism.
- Which is the largest botanical garden in the world? Name a few well known botanical gardens in India.

Short Answer Type Questions

- A ball of snow when rolled over snow increases in mass, volume and size. Is this comparable to growth as seen in living organisms? Why?
- In a given habitat we have 20 plant species and 20 animal species. Should we call this as 'diversity' or 'biodiversity'? Justify your answer.
- International Code of Botanical nomenclature (ICBN) has provided a code for classification of plants. Give hierarchy of units of classification botanists follow while classifying plants and mention different 'Suffixes' used for the units.
- A plant species shows several morphological variations in response to altitudinal gradient. When grown under similar conditions of growth, the morphological variations disappear and all the variants have common morphology. What are these variants called?
- How do you prepare your own herbarium sheets? What are the different tools you carry with you while collecting plants for the preparation of a herbarium? What information should a preserved plant material on the herbarium sheet provide for taxonomical studies?
- What is the difference between flora, fauna and vegetation? Eichorniacrassipes is called as an exotic species while Rauwolfiaserpentina is an endemic species in India. What do these terms exotic and endemic refer to?
- A plant may have different names in different regions of the country or world. How do botanists solve this problem?
- Brinjal and potato belong to the same genus Solanum, but to two different species. What defines them as separate species?
- Properties of cell organelles are not always found in the molecular constituents of cell organelles. Justify.
- The number and kinds of organism is not constant. How do you explain this statement?

PHYSICS

Q.1: Write short Notes on following

- Fundamental Forces
- Mass and Weight
- Law of conservation of Angular Momentum
- Significant Figure
- Fundamental and Drive Units
- Different type of error
- Advantages of S.I units
- Velocity – Time Graph
- RADAR Method of Measurement
- Average Velocity and Average Speed

Q.2 Solve 20 Numericals based on Chapter Physical World, Units and Measurement, Motion in straight line.

Q.3 Write detail history of

- 3 Indian Scientists (minimum 250 words)
- 3 other Country Scientists (minimum 250 words)

Q.4 Write detail of following in minimum (100 words)

- | | | | |
|--------------|---------------|----------|---------------|
| 1. M.R.I | 2. ULTRASOUND | 3. X-RAY | 4. TELEVISION |
| 5. C T SCANE | 6. AEROPLANE | 7. RADAR | 8. LASER |

Subject	Holiday Home Work (Summer Vacation)
Chemistry	(Assignment A) Some basic concepts in Chemistry

- Q1. What is meant by one gram atom of silver?
- Q2. Which of these solutions have same molar concentration?
- 49g H₂SO₄ per litre of solution
 - 49g H₃PO₄ per litre of solution
 - 73g HCl per litre of solution
 - 63g HNO₃ per litre of solution
- Q3. Write down the empirical formula of acetic acid (CH₃COOH)
- Q4. How many moles of methane are required to produce 22g CO₂ after combustion?
- Q5. A solution is prepared by adding 2g of a substance A to 18g of water. Calculate the mass percentage of the solute.
- Q6. Calculate the mass of Sodium acetate (CH₃COONa) required to make 500ml of 0.375 M solution. Given that the molar mass of sodium acetate is 82.
- Q7. Which of the following has a larger number of atoms: 1 gm. of K or 1 gm. of Cl₂
- Q8. Calcium carbonate reacts with aqueous HCl to give CaCl₂ and CO₂ according to the reaction,
- $$\text{CaCO}_3 (\text{s}) + 2 \text{HCl} (\text{aq}) \rightarrow \text{CaCl}_2 (\text{aq}) + \text{CO}_2 (\text{g}) + \text{H}_2\text{O} (\text{l})$$
- What mass CaCO₃ is required to react completely with 25 ml of 0.75 M HCl ?
- Q9. The empirical formula and molecular mass of a compound are CH₂O and 180 g respectively. What will be the molecular formula of the compound?
- C₉H₁₈O₉
 - CH₂O
 - C₆H₁₂O₆
 - C₂H₄O₂
- Q10. The reactant which is entirely consumed in reaction is known as limiting reagent.
- In reaction 2A + 4B → 3C + 4D, when 5 moles of A react with 6 moles of B, then:
- Which is the limiting reagent?
 - Calculate the amount of C formed.

GEOGRAPHY

- Make a list of different types of crops grown in India and mark the regions on the map of India.
- On an outline map of India mark the types of soils.
- On an outline map mark the different mountain ranges found in India.
- Make a list of all the states and union territories along with their capitals.
- Make a project on natural disasters and their mitigation and plans of the Government.

HISTORY

What do you know about the human Evolution? Collect the information in details.

ACCOUNTANCY

- 1) Complete notes of 1st Chapter "Introduction to Accounting."
- 2) Read and try to understand Basic terminology of Accounting.
- 3) Make a Project on BANKING: Meaning, Functions, Working, Facilities and use of technology in banking sector of our economy.

BUSINESS STUDIES

Complete notes of 1st Chapter "Nature And Purpose Of Business."

- 1) Learn the chapter and be prepared for test in 1st week of July.
- 2) Make a Project on "e – Business." Use of electronic media for buying and selling of goods and services.
- 3) Discuss various applications available for conducting business as well as making payment.

MATHS - 041

1. Classify the chart of Number System.
2. Write one point difference between Roster and Set-builder form of the Set.
3. Define the following terms: (i) Void Set. (ii) Interval (iii) Power Set (iv) Universal Set.
4. If $A = \{1, 2, 3, \dots, 100\}$, find $n(p(p(A)))$.
5. Given that $N = \{1, 2, 3, \dots, 100\}$, then
 - (i) Write the subset A of N, whose element are odd numbers.
 - (ii) Write the subset B of N, whose element are represented by $x + 2$, where $x \in N$.
6. Let $X = \{1, 2, 3, 4, 5, 6\}$. If n represent any member of X, express the following as sets :
 - (i) $n \in X$ but $2n \notin X$
 - (ii) $n + 5 = 8$
 - (iii) n is greater than 4.
7. From 50 students taking examinations in Mathematics, Physics and Chemistry, each of the student has passed in at least one of the subject, 37 passed Mathematics, 24 Physics and 43 Chemistry. At most 19 passed Mathematics and Physics, at most 29 Mathematics and Chemistry and at most 20 Physics and Chemistry. What is the largest possible number that could have passed all three examination?
8. Using properties of sets prove the following
 - (i) For all sets A and B, $A \cup (B - A) = A \cup B$
 - (ii) For all sets A and B, $A - (A - B) = A \cap B$
 - (iii) For all sets A and B, $A - (A \cap B) = A - B$
 - (iv) For all sets A and B, $(A \cup B) - B = A - B$
9. In a group of 50 students, the number of students studying French, English, Sanskrit were found to be as follows: French = 17, English = 13, Sanskrit = 15, French and English = 09, English and Sanskrit = 4, French and Sanskrit = 5, English, French and Sanskrit = 3. Find the number of students who study
 - (i) French only
 - (ii) French and Sanskrit but not English
 - (iii) English only
 - (iv) French and English but not Sanskrit
 - (v) Sanskrit only
 - (vi) at least one of the three languages
 - (vii) English and Sanskrit
 - (viii) none of the three languages but not French
10. Let U be the set of all boys and girls in a school, G be the set of all girls in the school, B be the set of all boys in the school, and S be the set of all students in the school who take swimming. Some, but not all, students in the school take swimming. Draw a Venn diagram showing one of the possible interrelationship among sets U, G, B and S.
11. Show that $A \cup B = A \cap B$ implies $A = B$.
12. For any sets A and B, show that $P(A \cap B) = P(A) \cap P(B)$.
13. Let A, B, and C be the sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$. Show that $B = C$.

14. Assume that $P(A) = P(B)$. Show that $A = B$.

15. In each of the following, determine whether the statement is true or false. If it is true, prove it. If it is false, give an example.

- (i) If $x \in A$ and $A \subseteq B$, then $x \in B$ (ii) If $A \subseteq B$ and $B \subseteq C$, then $A \subseteq C$
 (iii) If $A \subseteq B$ and $B \subseteq C$, then $A \subseteq C$ (iv) If $A \not\subseteq B$ and $B \not\subseteq C$, then $A \not\subseteq C$
 (v) If $x \in A$ and $A \not\subseteq B$, then $x \in B$ (vi) If $A \subseteq B$ and $x \notin B$, then $x \notin A$.

ARMY PUBLIC SCHOOL FAIZABAD
SUMMER HOLIDAY ASSIGNMENT
SESSION : 2019–2020

CLASS : XI & XII

SUBJECT : Computer Science, Informatics Prac.

Sr. No.	HOME WORK	ACTIVITY/PROJECT
1.	<p><u>Class XI</u></p> <p>Describe following Terms : (For CS and IP students)</p> <ol style="list-style-type: none"> (1) Flipped Class (2) RSS Feed (3) Cloud Computing (4) Quantum Computing (5) Nano technology (6) Bacterial computer (7) Web 2.0 Apps (8) Plasma TV/computer monitor (9) Transmission/Communication Media (10) Data Security in respect of Social Media (Describe) 	<ul style="list-style-type: none"> • Write answers in same copy. • Surf internet under the supervision of parents/guardian. <p>Describe these terms with the help of suitable example covering : Picture/ Diagram/ PPTs etc.</p> <p>Explain each Threat and its Prevention and support this with a suitable example.</p> <p>Report should contain your view/opinion and paste picture wherever required.</p>
2.	<p>Find the difference between C++ and Python. (For CS students)</p> <p>Find the difference between Java IDE and Python. (For IP students)</p>	
3.	<p>Do survey onto use/misuse of internet and submit your analytical report. (For CS and IP students)</p>	
4.	<p>Perform following duties/inculcate habits : (CS and IP students)</p> <ol style="list-style-type: none"> (i) Clean your house at least once in a week. (dusting, removing spider-web, arrange your room, etc.) (ii) Be kind with animals. (iii) Pray to God for the day, every night before going to bed. (iv) Respect your Parents and elders. 	

*** WISH YOU HAPPY VACATION ***