

R.K. Memorial Sr. Sec. School

Summer Break Homework

Class- X

ENGLISH

1. Suppose that you were on a morning walk and caught in a heavy storm, how did you manage to save yourself. Compose a story within 150 words.
2. Compose a poem on your mother or your father. It should be a self composed poem.
3. Read the following lessons/ poetry from the textbooks and write the summary of the same.

FIRST FLIGHT-

- A Letter to God (G.L. Fuentes) Ref: <https://www.youtube.com/watch?v=VHhkNhzVGFM>
- Dust of Snow Ref: <https://www.youtube.com/watch?v=vGNFMZmpVW8>
- Fire and Ice <https://www.studyrankers.com/2019/02/summary-of-fire-and-ice-by-robert-frost-class10-first-flight.html>
- Nelson Mandela: Long Walk to Freedom (Nelson Rolihlahla Mandela)<https://www.youtube.com/watch?v=PkhTJCpW4dg>

FOOTPRINTS WITHOUT FEET -

- A Triumph of Surgery (James Herriot) Ref: <https://www.youtube.com/watch?v=s99uot6vXPU>
 - The Thief's Story (Ruskin Bond) <https://www.youtube.com/watch?v=6DzEn3V7XUU>
 - The Midnight Visitor (Robert Arthur) <https://www.youtube.com/watch?v=nfI8rXnP7dc>
4. Write articles on the given topics. (200 words)
 - School going children-lazy and disease prone
 - Modern gadgets have made us slaves to machines
 - Value Education should be a part of school curriculum
 5. Complete the story using the given outline 150-200 words.
 - It was a hot day, A blind man was crossing the road, suddenly a car came.....
 - A 15 years old boy was going on a deserted road feeling like a little scared and uneasy.
 6. Write the following letters
 - The number of tourists going to the hill stations is increasing. Time has led to their commercialization and it's ill effects. More & more hotels, garbage effects on the life of the locals etc. Write a letter to the editor of a national daily expressing your concern over the situation.

- Write a letter to the Sales Manager of the firm complaining about it and requesting for the piece to be replaced. The refrigerator has been given one year warranty against any technical fault.
- You are Rizwan Ali, Resident of 456, Rajori Garden, New Delhi. Write a letter to the editor of a national daily drawing the attention of the concerned authorities to the deteriorating law & order situation in the city.

NOTE: Do the holidays' homework in a small copy separately.

विषय -हिंदी

- 1) सभी रसों से संबंधित एक एक उदाहरण लिखे व याद करें ।
- 2) ए/4 आकार के पेपर पर किसी भी कवि का जीवन परिचय चित्र सहित बनाएं ।
- 3) किसी भी विषय पर दो सचित्र विज्ञापन बनाएं
- 4) कविता 1,2,5 का संपूर्ण अभ्यास कार्य याद करें
- 5) माता का आंचल पाठ के आधार पर लिखें कि आप भोलानाथ के समय के खेलों व खेलों की सामग्री को उचित मानते हैं या अपने समय के ।
- 6) क्षितिज पाठ 10,11,12,13 याद करें
- 7) • कल करे सो आज कर
• खेल और हमारा स्वास्थ्य विषय पर 150-200 शब्दों में अनुच्छेद लिखें
- 8) वाक्य और पद परिचय का संपूर्ण अभ्यास व्याकरण पुस्तिका में करें

MATHEMATICS

1. Revise chapter- 1,2,14 and 15 in practice note book.
2. Write activity 1 to 5 in Lab Manual in good hand.
3. Do the given assignment.

Assignment

1. Use Euclid's algorithm to find the HCF of 4052 and 12576?
2. Show that any positive integer is of the form $3q$ or $3q+1$ or, $3q+2$ for some integer q ?

3. Show that one and only one out of n , $n+2$ or, $n+4$ is divisible by 3, where n is any positive integer?
4. If the HCF of 210 and 55 is expressible in the form $210x+55y$, then find y ?
5. Express each of the following positive integers as the product of its prime factors
(a) 140 (b) 156 (c) 234
6. Show that $2-\sqrt{3}$ is an irrational number?
7. Show that $\sqrt{5}$ is an irrational number?
8. Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non terminating repeating decimal expansion?
(1) $\frac{23}{8}$ (2) $\frac{123}{441}$ (3) $\frac{35}{30}$ (4) $\frac{77}{210}$
9. Find the HCF of 65 and 117 and express it in the form of $65m+117n$?
10. Prove that the square of any positive integer is of the form $4q$ or $4q+1$ for some integer q ?
11. Find the zeros of the quadratic polynomial $x^2+7x+12$ and verify the relation between the zeros and its coefficients?
12. If α and β are the zeros of the quadratic polynomial $f(x) = x^2 + x - 2$, find the value of $\frac{1}{\alpha} - \frac{1}{\beta}$?
13. Find a quadratic polynomial each with the given numbers as the sum and product of its zeros respectively?
(1) $\frac{1}{5}, -1$ (2) $\sqrt{2}, 1/3$ (3) $0, \sqrt{5}$
14. Divide the polynomial $f(x) = 3x^2 - x^3 - 3x + 5$ by the polynomial $g(x) = x - 1 - x^2$ and verify the division algorithm?
15. Find all the zeros of the polynomial $f(x) = 2x^4 - 3x^3 - 3x^2 + 6x - 2$, if two of its zeros are $\sqrt{2}$ and $-\sqrt{2}$?
16. What must be subtracted from $8x^4 + 14x^3 - 2x^2 + 7x - 8$ so that the resulting polynomial is exactly divisible by $4x^2 + 3x - 2$?
17. Find the values of a and b so that $x^4 + x^3 + 8x^2 + ax + b$ is divisible by $x^2 + 1$?
18. Find all the zeros of the polynomial $2x^4 + 7x^3 - 19x^2 - 14x + 30$ if two of its zeros are $\sqrt{2}$ and $-\sqrt{2}$?
19. Find all the zeros of the polynomial $2x^3 + x^2 - 6x - 3$ if two of its zeros are $\sqrt{3}$ and $-\sqrt{3}$?
20. Find all the zeros of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$ if two of its zeros are 2 and -2?
21. The median of the following data is 525. Find the values of x and y , if the total frequency is 100

C	0 –	100–	200 –	300 –	400–	500–	600–	700–	800–	900–
.I	100	200	300	400	500	600	700	800	900	1000
F	2	5	X	12	17	20	Y	9	7	4

22. The median of the data is 28. Find the values of x and y , if the total frequency is 50

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
No of students	5	X	15	Y	6

23. If the mean of the following distribution is 27, find the value of p

C. I	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
F	8	P	12	13	10

24. Find the missing frequency: mean = 50, Total frequency = 120

x	10	30	50	70	90
f	17	F_1	32	F_2	19

25. The mean of the following frequency distribution is 132 and the sum of the observations is 50. Find the

Missing frequencies f_1 and f_2

C. I	0 – 40	40 - 80	80 – 120	120 - 160	160 - 200	200 – 240
F	4	7	F_1	12	F_2	9

26. Find the mean, median and mode of the following data

C.I	0 - 10	10 - 20	20 – 30	30 – 40	40 - 50	50 – 60	60 - 70
F	6	8	10	15	5	4	2

27. The mode of the following frequency distribution is 55, find the values of x and y , If the total frequency is 50

C	0 - 15	15 - 30	30 – 45	45 - 60	60 - 75	75 - 90
F	6	7	Y	15	10	X

28. Write the empirical relationship between the three measures of central tendency

29. If median = 15 and mean = 16, find mode of the distribution

30. Following is the distribution of marks obtained by 60 students: Calculate the arithmetic mean

Marks	More than 0	more than 10	More than 20	More than 30	More than 40	More than 50
No of Students	60	56	40	20	10	3

31. From the following data find the median

C. I	200 – 220	220 – 240	240 - 260	260 - 280	280 – 300	300 – 320
F	7	3	6	8	2	4

32. The probability of getting bad egg in a lot of 400 is 0.035. Then find the no. of bad eggs in the lot.
33. Write the probability of a sure event.
34. When a dice is thrown, then find the probability of getting an odd number less than 3.
35. A girl calculates that the probability of her winning the third prize in a lottery is 0.08. If 6000 tickets are sold, how many ticket has she bought.
36. What is probability that a non-leap year selected at random will contain 53 Sundays.
37. A bag contains 40 balls out of which some are red, some are blue and remaining are black. If the probability of drawing a red ball is $\frac{11}{20}$ and that of blue ball is $\frac{1}{5}$, then what is the no. of black ball?
38. Two coins are tossed simultaneously. Find the probability of getting exactly one head.
39. A card is drawn from a well shuffled deck of 52 cards. Find the probability of getting an ace.
40. In a lottery, there are 10 prizes and 25 blanks. Find the probability of getting a prize.

SCIENCE

A. Solve the given assignment in your science H.W. notebook.

B. Learn following chapters for July periodic test

- **Chemical equations and reactions**
- **Acids, bases and salts**
- **Life processes**
- **Our environment**
- **Sources of energy**

ASSIGNMENT

1. Which among the following changes are exothermic or endothermic in nature?
 - (a) Decomposition of ferrous sulphate
 - (b) Dilution of sulphuric acid
 - (c) Dissolution of sodium hydroxide in water
 - (d) Dissolution of ammonium chloride in water
2. Why do fire flies glow at night?
3. Why do we store silver chloride in dark coloured bottles?
4. Zinc liberates hydrogen gas when reacted with dilute hydrochloric acid, whereas copper does not. Explain why?
5. What happens when a piece of
 - (a) zinc metal is added to copper sulphate solution?
 - (b) aluminium metal is added to dilute hydrochloric acid?
 - (c) Silver metal is added to copper sulphate solution? Also, write the balanced chemical equation if the reaction occurs.
6. "All plants give out oxygen during day and carbon dioxide during night".
Do you agree with this statement? Give reason.
7. How do the guard cells regulate opening and closing of stomatal pores?
8. If a plant is releasing carbon dioxide and taking in oxygen during the day, does it mean that there is no photosynthesis occurring? Justify your answer.
9. Why do fishes die when taken out of water?
10. What would happen if green plants disappear from earth?

11. Leaves of a healthy potted plant were coated with vaseline. Will this plants remain healthy for long? Give reasons for your answer.
12. Differentiate between an artery and a vein.
13. Why is small intestine in herbivores longer than in carnivores?
14. What causes movement of food inside the alimentary canal?
15. Why does absorption of digested food occur mainly in the small intestine?
16. What are the functions of gastric glands present in the wall of the stomach?
17. Two solutions of A and B have pH values of 5 and 8. Which solution will be basic in nature?
18. Why does tooth decay start when pH of mouth is lower than 5.5?
19. What would be the colour of litmus in a solution of sodium carbonate?
20. Name the products obtained when sodium hydrogen carbonate is heated. Write the chemical equation for the same.
21. Write the chemical formula of washing soda and baking soda. Which one of these two is an ingredient of antacids? How does it provide relief in stomachache?
22. What do you mean by "water of crystallization" of a substance? Describe an activity to show that blue copper sulphate crystals contain water of crystallization.
23. Distinguish between biodegradable and non biodegradable substances. Give two points of difference.
24. What are the disadvantages of using fossil fuel?
25. List any two advantages associated with water stored in the ground.
26. What is reuse strategy? Reuse strategy is considered better than the recycling strategy.
27. Accumulation of harmful chemicals in our bodies can be avoided. Explain how this can be achieved.
28. What is the principle of OTEC?
29. Why is it useful to convert bio mass into biogas rather than burning bio mass directly?
30. What is the use of slurry left in a bio gas plant?
31. What is the drawback of energy obtained from nuclear fusion?
32. Write three ill effects of burning of fossil fuels.
33. Write three uses of bio gas.

SOCIAL SCIENCE

**Make a project report on consumer awareness -*

**Write about rights and duties of a consumer, how they are exploited in markets, consumer awareness, slogans, posters, consumer form or consumer protection council*

like COPRA with its features.

*** Make your project file of minimum 15 pages. Project should include following points:-**

1) **Cover page**-Display the topic

2) **Acknowledgement** -thanking the people or institution that has helped you in completion of your work.

3) **Certificate**-Mentioning your name and the name of the teacher under whose supervision you have completed your work.

4) **Index**- Giving the list of contents with page number.

5) **Introduction**- Giving the purpose and importance of a study.

6) **Chapter**-Give a title to each chapter or topic along with details and pictures.

7) **Conclusion**-What do You learn from your study?

8) **Bibliography**-showing the sources from where you have gathered information.

* Fill map book related to geo chno-1, 3, 4 and do practice.

*Read following chapters of NCERT thoroughly.

*Economics-1,2,3,4. Civics- 1,2,4,6,7. Geography- 1, 4

* Learn all types of questions like one mark, three and five marks question answers of above completed chapters.

* To promote Swadeshi goods make a list of Indian goods and guide your parents to purchase only Indian goods.

COMPUTER SCIENCE

1. Register with register with BHIM UPI/Junglee (www.junglee.com) / Yatra (www.yatra.com) or any other online transaction website and practice online transactions. Create a profile and print the screen shots of the same/in pendrive. (Reference: <https://secure.yatra.com/social/common/yatra/register>)
2. Explore Cyber laws for commenting/bullying on social media. Prepare an interactive presentation for the same. (Reference: <https://www.geeksforgeeks.org/cyber-law-it-law-in-india>)
3. Create a blog on topic of your interest and publish minimum 4 posts. Print snapshots of the latest preview of your blog (Reference: <https://www.wix.com>)
4. Read the chapter 1 and 2 given in your book and try to solve its book exercise in your HHW notebook.

Note:

- *Those who are not having computers at home , they can use WPS Office on mobile.*
- *Send your work to your subject teacher's personal whatsapp number.*