

SUMMER VACATION HOMEWORK FOR CLASS X
SESSION 2021-2022

Mathematics (XA AND B)

SUBJECT TEACHER- GITA SINGH AND DEEPMALA EKKA, TGT
(MATHEMATICS)

CHAPTER-01 (REAL NUMBERS)

1. Using Euclid's division algorithm, find the HCF of 867 and 255.
2. Find a rational and an irrational number between 2 and 3.
3. After how many places, the decimal expansion of the rational number $\frac{432453}{1000000}$ will terminate.
4. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$
5. Convert 1.001 and 0.234 in the form of $\frac{p}{q}$
6. Convert 0.49 in the form of $\frac{p}{q}$
7. Show that the square of any positive integer is of the form $3m$ or $3m+1$, where m is some integer.
8. (a) Prove that $\sqrt{3}$ is an irrational number. (b) Prove that $2+3\sqrt{5}$ is an irrational number.
9. Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composite numbers.
10. Show that $6n$ can not end with the digit 0 for any natural number n
11. Find the HCF of 65 and 117 and express it in the form $65m+117n$.
12. If the HCF of 210 and 55 is expressible in the form $210s+55y$, find s and y .

CHAPTER-02 (POLYNOMIALS)

13. Find a quadratic polynomial, the sum and product of whose zeroes are -5 and 3 respectively.
14. Find a quadratic polynomial whose zeroes are 14 and -1
15. Divide px^3 by qx , given that $px^3 = x^3 - 3x^2 + 5x - 3$ and $qx = x^2 - 2$
16. Find zeroes of quadratic polynomial $px^2 = 6x^2 - 3 - 7x$
17. Find the zeroes of quadratic polynomial $px^2 = 2x^2 - 5x - 12$ and verify the relationship between the zeroes and its coefficient.
18. Find a quadratic polynomial one of whose zeroes is $2-3$ and sum of the zeroes is 4.

19. If, are the zeroes of quadratic polynomial $px = x^2 - 5x + 6$, then find the value of (i) $2+2$ (ii) $3+3$ (iii) $-1+-1$ (iv) $2-2$
20. If one of the zeroes quadratic polynomial $px = 2x^2 - k + 5x + 6$ is 3, find the other zero, also find the value k.
21. On dividing a polynomial $px = x^3 - 3x^2 + x + 2$ by a polynomial gx , the quotient and remainder were $x-2$ and $-2x+4$ respectively, find gx
22. Find all zeroes of the polynomial $fx = 2x^4 - 2x^3 - 7x^2 + 3x + 6$, if its two zeroes are -32 and 32
23. Sum of two zeroes of polynomial of degree 4 is -1 and their product -2 . If other two zeroes are 3 and -3 . Find the polynomial.

SUBJECT - BIOLOGY MAX.MARK (X A)

1. What is life process?
2. What criteria do we use to decide whether something is alive?
3. What is Nutrition?
4. Explain Autotrophic nutrition with examples.
5. What is photosynthesis with labeled diagram.
6. What events occur during photosynthesis?
7. Draw a labeled diagram of cross section of a leaf?
8. Explain stomata & its function with diagram.
9. Define heterotrophic nutrition with examples.
10. What is parasitic nutrition with examples?
11. Explain mode of heterotrophic Nutrition found in fungi?
12. Explain Holozoic nutrition with examples.
13. Draw a labeled diagram of open & closed stomata.
14. Write difference between autotrophic & heterotrophic nutrition
15. Where does the plant get each of the raw materials required for photosynthesis? ‘

SUBJECT - BIOLOGY MAX.MARK (X B)

1. What process would you consider essential for maintaining life?
2. What is definition of Nutrition?
3. Explain photosynthesis & event occurs during this process.
4. draw a labeled diagram of Nutrition in Amoeba?
5. Which type of heterotrophic Nutrition are found in Amarbel (cascuta)
6. Draw A labeled diagram of human digestive system.

7. What is saliva? In which gland saliva are secreted.
8. Which enzyme are contain in saliva? What is the role of this enzyme in digestion of food?
9. What is the role of HCL & Mucus in our stomach.
10. What is the function of pepsin & trypsin in our food.
11. What is bile juice. bile juice digest which parts of food?
12. Draw a labbeled diagram of cross section of a leaf.
13. Which is the largest gland of our body.
14. How is the small intestine designed to absorb digested food?
15. Explain villi & it's function

PHYSICS (XA AND XB)

1. Draw each ray diagram thrice for image formation by a concave mirror for the following positions of an object.
 - (i) Object at infinity
 - (ii) Object between centre of curvature and infinity
 - (iii) Object at centre of curvature
 - (iv) Object between centre of curvature and focus
 - (v) Object at focus
 - (vi) Object between pole and focus
2. Draw each ray diagram thrice for image formation by a convex mirror for the following positions of an object.
 - (i) Object at infinity
 - (ii) Object between infinity and pole of convex mirror
3. Solve all the examples related to the topics taught in chapter ten of text book

➤ **CHEMISTRY (XA AND XB)**

1. Write Home assignment in HW notebook.
2. Write an Essay on the topic “ The contribution of Indian Scientist in The Field Of Science” (Minimum five pages, maximum ten pages)
3. Write and memorise following reactions

Day	Reaction	Page no	Chapter name
1	Sandmayer reaction	287	halo alkanes and haloarenes
2	Finkelstein and Swarts Reaction	289	halo alkanes and haloarenes
3	Finkelstein and Swarts Reaction	289	halo alkanes and haloarenes
4	elimination reaction	300	halo alkanes and haloarenes
5	Wurtz Reaction	302	halo alkanes and haloarenes
6	friedel crafts reaction	306	halo alkanes and haloarenes
7	Revision		halo alkanes and haloarenes
8	Fitting Reaction, Wurtz Fittig Reaction	307	halo alkanes and haloarenes
9	Fitting Reaction, Wurtz Fittig Reaction	307	halo alkanes and haloarenes
10	Hydroboration oxidation	322	alcohols phenols and ethers
11	Kolbe's Reaction	334	alcohols phenols and ethers
12	Reimer tiemann reaction	335	alcohols phenols and ethers
13	Williamson synthesis	337	alcohols phenols and ethers
14	Revision		
15	friedel crafts reaction	342	alcohols phenols and ethers
16	rosenmund reaction	354	aldehydes ketones carboxylic acids
17	Stephen reaction	354	aldehydes ketones carboxylic acids
18	etard reaction	355	aldehydes ketones carboxylic acids
19	gattermann Koch reaction	355	aldehydes ketones carboxylic acids
20	friedel craft acylation	356	aldehydes ketones carboxylic acids
21	Revision		
22	clemmensen reduction, wolf Krishna reduction	361	aldehydes ketones carboxylic acids
23	Haloform reaction	362	aldehydes ketones carboxylic acids
24	aldol and cross aldol condensation	364	aldehydes ketones carboxylic acids
25	aldol and cross aldol condensation	364	aldehydes ketones carboxylic acids
26	Cannizaro reaction	364	aldehydes ketones carboxylic acids
27	Hell Volhard zelinsky reaction	375	aldehydes ketones carboxylic acids
28	Gabriel phthalimide synthesis	386	Amines
29	Hoffmann bromamide reaction	386	Amines
30	Carbylamine Reaction	393	Amines
31	Gattermann reaction	397	Amines
32	Coupling reaction	398	Amines

ENGLISH (XA AND XB)

1. Complete question answer
2. Letter to the editor.
3. Tense chart.
4. Summary: - A Triumph of Surgery

कक्षा:- दसवी A AND B विषय - हिंदी

1. वाक्य की परिभाषा लिखिए ?
 2. वाक्य के अंग उदाहरण सहित लिखिए ?
 3. रचना के दृष्टि से वाक्य के प्रकार लिखिए ?
 4. रचना के दृष्टि से वाक्य के भेद लिखकर उदाहरण सहित लिखिए ?
 5. निम्नलिखित वाक्यों को मिश्र वाक्य में बदलिए :-
I तुम बस रुकने के स्थान पर चले जाओ ।
II गीता ने एक पुस्तक मांगी और वह उसे मिल गई
 6. सूरदास के पद के आधार बड़भागी किसे और क्यों कहा गया है ?
 7. गोपि या श्रीकृष्ण के प्रेम में किस प्रकार डूबी रहती है ?
 8. "हमारे हरि हरिलाल की लकरी" से कवि का क्या आशय है?
 9. गोपियों ने किस बीमारी की बात कही है ?
 10. गोपियाँ श्रीकृष्ण को राजा के क्या कर्तव्य याद दिलाती हैं ?
- परि योजना कार्य : इसे फाइल पेपर पर करें ।
1. सोशल मीडिया : विद्यार्थी जीवन ।
 2. यात्राएं: अनुभव एवं देश का विकास ।

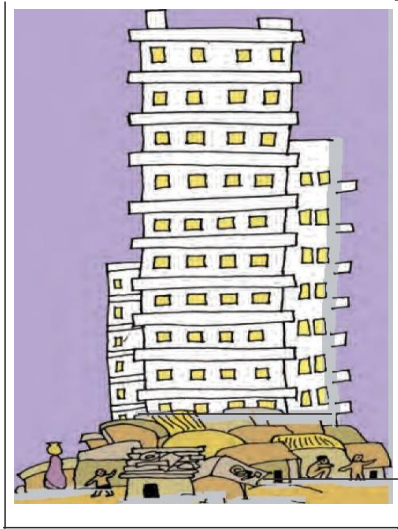
विषय शिक्षक

आर. के. यादव

(टी. जी. टी. हिन्दी)

Q1. Answer the following question:-

LET'S WORK THESE OUT



1. Who are the people who benefited and who did not?
2. What should be the development goal for this countries?
3. What can be some of the developmental goals for your village, town or locality?
4. Suppose records show that the average income in a country has been increasing over a period of time. From this, can we conclude that all sections of the economy have become better? Illustrate your answer with an example.
5. From the text, find out the per capita income level of low-income countries as per World Development Reports.
6. Write a paragraph on your notion of what should India do, or achieve, to become a developed country.

ANSWER THE FOLLOWING QUESTION (3/4 MARKS)

COUNTRY WITH NO RICH AND NO POOR	COUNTRY WITH RICH AND POOR

LET'S WORK THESE OUT

1. Give three examples where an average is used for comparing situations.
2. Why do you think average income is an important criterion for development? Explain.
3. Besides size of per capita income, what other property of income is important in comparing two or more societies?

MADE THE CHAIRS AND HE TOOK THEM.

1. Write a paragraph on your nation that what should India do, to become a developed country?
2. What is the main criteria used by the World Bank in classifying different countries? What are the limitations of this criterion, if any?
3. Do all persons have the same notion of development? Explain.
4. Explain the important aspects of our lives that are important than income.
5. Explain the goals of different persons may sometime be conflicting.

SUB:-ART EDUCATION

CLASS- 6 TO 10

H.w.- 05 PENCIL COLOUR SHADING/ CRAYONS/PASTEL COLOUR WORKS

Paper size:-A4/A3