

कक्षा-10

| क्र.सं. | गृह-कार्य | उद्देश्य |
|---------|---|------------------------|
| 1. | निबन्ध लिखिए | |
| | १. इन्टरनेट वरदान या आभिशप २. स्वाच भारत अभियान ३. बेटों बचाओ बेटों पढाओ ४. विद्यार्थी जीवन में अनुशासन का महत्त्व | रचनात्मक दृष्टिकोण |
| 2. | अपने माता-पिता का चित्र साहित्य एक अनुच्छेद लिखिए। | नैतिक-मूल्य का विकास |
| 3. | निम्नलिखित काव्य और लेखकों का चित्र साहित्य साहित्यिक परिचय दीजिए। (क)सूरदास (ख)तुलसीदास (ग) स्वयं प्रकाश | साहित्यिक दृष्टिकोण |
| 4. | भक्तकाल के काव्यों के नैतिक दृष्टिकोण का सफल नैतिक मूल्यों का विकास कीजिए। | नैतिक मूल्यों का विकास |

KENDRIYA VIDYALAYA IIT MADRAS

Summer Holiday Home work X APRIL 2018-19

Note: All the holiday home-work should be submitted on A4 sheets only

A

1. State the fundamental theorem of arithmetic.
2. Write the condition for a rational number which can have a terminating decimal expansion.
3. Given the $\text{HCF}(150,100) = 50$. Find LCM.
4. Express 150 as a product of its primes.
5. Write a rational number between $\sqrt{2}$ and $\sqrt{3}$
6. Prove that, $\sqrt{11}$ is irrational.
7. Show that, $\sqrt{3} + 2\sqrt{5}$ is irrational.
8. Find LCM of 36, 40, 48.
9. Write the prime factors of 2700.
10. Write the condition satisfied by 455, so that $\frac{64}{455}$ has a non-terminating repeating decimal expansion.
11. Find a quadratic polynomial $P(y)$ whose sum and product of zeroes are 3 and $-\frac{1}{3}$ respectively.
12. If α and β are the zeroes of the quadratic polynomial $x^2 + 2x + 1$, then find the quadratic polynomial whose zeroes are $\alpha^2\beta$ and $\alpha\beta^2$.
13. Find a quadratic polynomial whose one of the zeroes is -15 and sum of the zeroes is 42.
14. Find the zeroes of the quadratic polynomial $16x^2 - 3$.
15. Find the quadratic polynomial whose zeros are reciprocals of the polynomial $p(x) = x^2 - x - 2$.
16. Find the zeros of the quadratic polynomial $8x^2 - 21 - 22x$ and verify the relationship between zeros and coefficients of the polynomial.
17. Obtain all zeros of the polynomial $f(x) = 2x^4 + x^3 - 14x^2 - 19x - 6$, if two of its zeros are -2 and -
18. Give an example of polynomials $p(x)$, $g(x)$, $q(x)$ and $r(x)$, which satisfy the division algorithm and $\text{degree } q(x) = \text{degree } r(x)$.
19. Find HCF of the polynomials $x^3 - 4x^2 + x + 6$ and $(6x^2 + x - 1)(x - 3)^3$

20. If α, β are zeroes of the polynomial x^2-2x-8 , then form a quadratic polynomial whose zeroes are 2α and 2β

B

Write algebraic identities and laws of exponents.

C

Write multiplication tables 6 to 20, and conversion tables at least twice.

D

Write history and contributions of your favourite Mathematician.

KENDRIYA VIDYALAYA SANGATHAN, CHENNAI REGION

SUMMER HOLIDAY HOMEWORK 2018-19

CLASS: X

SUB: SCIENCE

Kidney Transplantation

- A person with kidney failure may have a kidney transplant. This involves replacing the failed kidney with a healthy one from a donor.
- The donor kidney is connected near the patient's bladder.

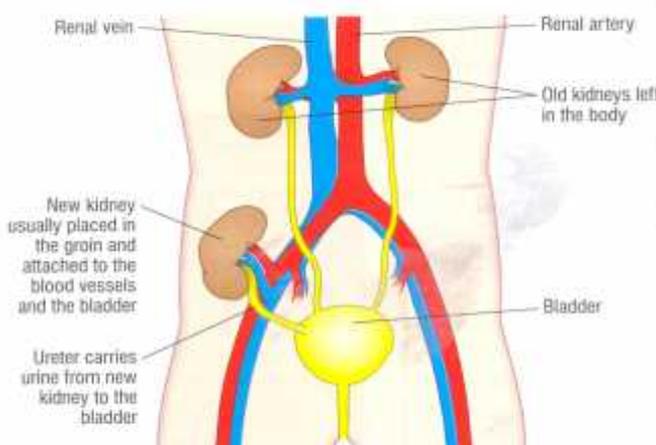


Figure 1 A donor kidney takes over the functions of failed kidneys, which are usually left in place

- A major problem with transplantation is **rejection** – the recipient's immune system recognises the transplant as **non-self** and destroys it.
- The donor kidney needs to be as similar as possible to the patient's **tissue type**.

Choosing the patient

- The **antigens** on the surface of every cell determine your **tissue type**.
- Your **immune system** produces **antibodies** to foreign antigens.

1. Which cells produce antibodies? _____
- The antigens on every donor kidney are analysed and matched with a similar recipient.

kidney for transplant

tissue type

| | | |
|----|----|------|
| A1 | B3 | DR4 |
| A5 | B9 | DR11 |

A, B and DR are the k antigens. There are a 20 versions of each a

patient A

| | | |
|----|----|------|
| A1 | B4 | DR7 |
| A9 | B9 | DR11 |

patient B

| | | |
|----|----|-----|
| A1 | B3 | DR4 |
| A5 | B8 | DR6 |

patient C

| | | |
|----|----|------|
| A1 | B3 | DR4 |
| A5 | B9 | DR11 |

2. Which patient is the best match? _____

1. What type of drugs are used to try and prevent rejection?

2. What is a disadvantage of using these drugs?

3. a) How long do transplanted kidneys last? _____

b) What happens to the patient then? _____

Finding Donors

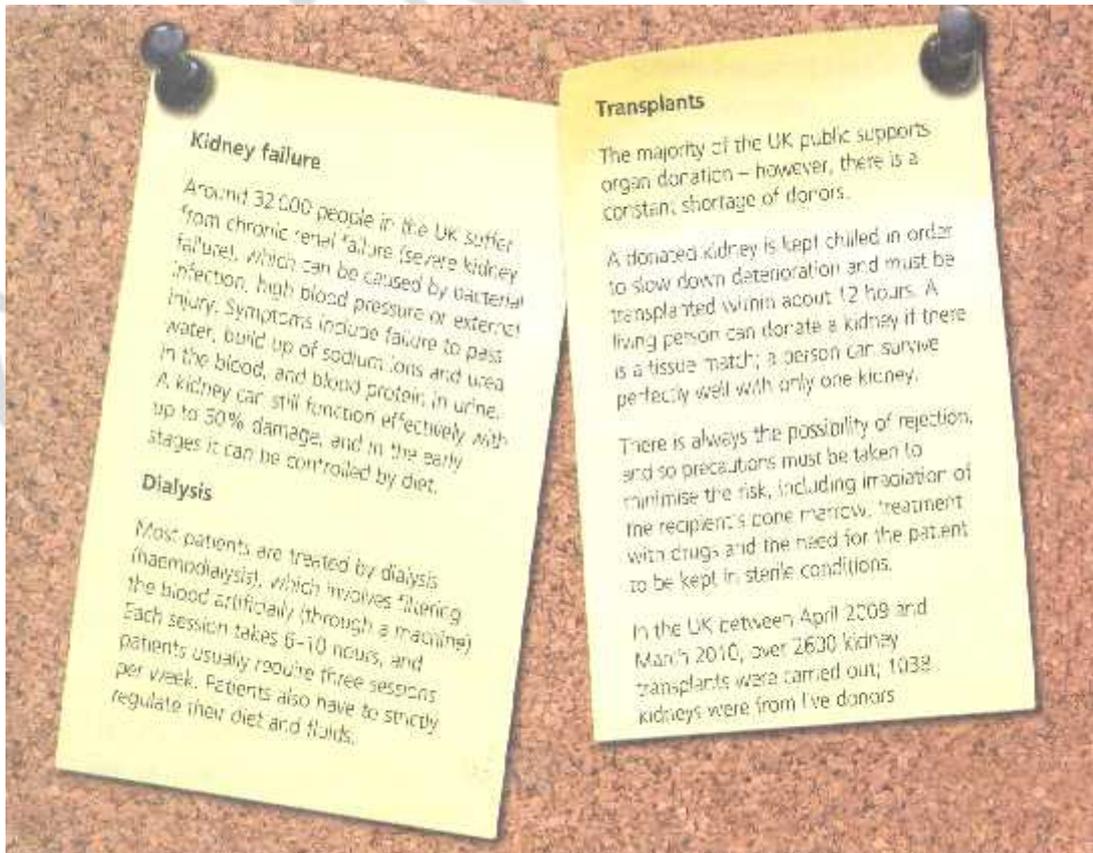
4. What is the main source of kidneys for transplant?

5. Sometimes a live donor (usually a close family relative) will donate a kidney. Explain why these transplants often have a high rate of success.

6. Scientists are working on **xeno transplantation**. What is this?

7. Construct a table to compare the advantages and disadvantages of treating kidney failure by dialysis or kidney transplant.

You may use the information in the box below to help you.



ii) Find out the chemical composition present in the following products which we use in our day today life.

| S.No | Name of the product | Chemical composition |
|------|---------------------|----------------------|
| 1 | Tooth paste | |
| 2 | Talc (face powder) | |
| 3 | Toilet Soap | |
| 4 | Nail polish | |
| 5 | Body spray | |
| 6 | Shoe polish | |

iii) Prepare a natural indicator using (beetroot/ red cabbage/ flowers/ turmeric) and test the nature of substance available at home. Support with your photographs. (refer page no.35 in science NCERT book)

KENDRIYA VIDYALAYA SANGATHAN, CHENNAI REGION

SUMMER HOLIDAY HOMEWORK

CLASS: X

SUBJECT: SOCIAL

| CLASS | SUBJECT | LESSON NAME | ACTIVITY |
|----------|------------------|---|---|
| X | GEOGRAPHY | 1.NATURAL VEGETATION AND WILDLIFE 2.NATIONALISM IN INDIA | PROJECT WORK – 1.Collect information on different type of species of wildlife and plants(pg no 15) with pictures in scrap book 2. ‘Mahatma Gandhi and freedom struggle’ Collect information with pictures.(ACTIVITY NOTE) 3.Write lesson backside questions & answers(C W NOTE) |
| | CIVICS | 2.FEDRALISM | 1. COLLECT INFORMATION ABOUT “THE PANCHAYATI RAJ SYSTEM IN INDIA.” 2.Write about Civil rights movement and The Black power movement (C W NOTE) |
| | ECONOMICS | 2.SECTORS OF INDIAN ECONOMY | 1.THE THREE SECTORS OF INDIAN ECONOMY- Meaning and Examples. 2.COLLECT INFORMATION ABOUT Digital India Programme or Make India Programme. (ACTIVITY NOTE) |
| | HISTORY | 1.WORK , LIFE ,LEISURE. | 1. Write a detailed report on growth and development of Chennai City. 2.Case studies- Development of cities and its effect on ecology and environment.(Delhi or Kolkatta) |

KENDRIYA VIDYALAYA SANGATHAN, CHENNAI REGION

2018-19 SUMMER VACATION HOME WORK

CLASS: X

SUB: ENGLISH

| S.NO | TOPIC | LEARNING OBJECTIVES | EVALUATION CRITERIA | DURATION |
|------|--|---|--|--------------------------|
| 1. | Main Course Book – Communicative English a) Education b) Science | To develop Reading ,Writing, Creative & Word Attack skills | a) Completion b) Understanding c) Accuracy | Summer Vacation= 50 days |
| 2. | Newspaper Reading – Articles / Editorials a) Cut and paste an article b) Frame 5 questions for each article | To develop reading skills Practice for Section – A To improve writing skills | a. Selection of article b. Content | Once in a week |
| 3 | Listening to English News a. Record the headlines b. Observe and write 5 new words c. Prepare a topic for your Debate and note down the key points either for or against it | To develop listening and debating skills | a. Content b. Fluency c. Accuracy | Every day |
| 4 | Book Review - Long Reading Novel The Story of My Life-Helen Keller | Reading skills Writing skills | a. Content b. Fluency a. Accuracy | 50 days |