

SANT NIRANKARI PUBLIC SCHOOL

FARIDABAD

Class X

Assignment of English

18.3.2020

Torrential rains and swollen rivers have caused havoc across central and Eastern Europe, while a massive heat wave in Southern Europe has caused the reduction of the Portuguese woodland to tinder.

1) After reading the above newspaper clipping you decided to write a letter to the editor of a newspaper about the harmful effects of global warming. You are Nitin/Nitika resident of New Delhi. Write the letter.

19.3.2020

2) In the recent staff meeting, a decision was taken to place an order with Chaudhary Office Furniture, Paharganj, New Delhi for the supply of chairs for the school library. As the Librarian, St. Prayag School, Morarji Nagar, New Delhi place order for the same in 100 to 150 words.

20.3.2020

3) You are Rohit, the proprietor of an electrical and electronic goods shop in Delhi. Write a letter to a wholesaler dealer of electrical goods, placing an order for few goods. Ask for the usual discount and the catalogue of the goods available.

21.3.2020

4) Write an article in about 100 to 150 words on birds that migrate to India in winter months. Discuss if we are hospitable to them. Sign yourself as Saina/ Sadiq.

23.3.2020

5) Write an article in about 100 to 150 words 'Road Safety' : A National Concern'. You are Ayush/ Ayushi of Sunbeam Public School , Hyderabad.

24.3.2020

6) A teacher motivates and inspires her students. As Raghav/ Rashmi, Write an article in about 100 to 150 words discussing the role and importance of teachers in our lives.

25.3.2020

7) Complete the story in 150-200 words, which begins as the following , providing an appropriate title also: It was 11:45 P.M. I was alone at home. Suddenly I heard a knock on the door-----

26.3.2020

8) Complete the story in 150-200 words, which begins as the following ,give a suitable title. Once upon a time, railway line passed through a dense forest. The railway signal was fixed near a tall tree on which a big monkey lived. He observed

27.3.2020

9) Complete the story in 150-200 words and give suitable title, which begins as the following , Once there were two friends Amit and Sumit. One day.....

28.3.2020

VI. Fill in the blanks

Page No. 8

Activity - 1

There are different names in different parts of the world for storms, depending on their nature. Can you match the names in the box with their descriptions below, and fill in the blanks? You may use a dictionary to help you.

gale, whirlwind, cyclone, hurricane, tornado, typhoon

- (i) A violent tropical storm in which strong winds move in a circle _ _ c _ _ _ _ (cyclone).
- (ii) An extremely strong wind: _ a _ _ (gale).
- (iii) A violent tropical storm with very strong winds: _ _ p _ _ _ _ (typhoon).
- (iv) A violent storm whose centre is a cloud in the shape of a funnel: _ _ _ n _ _ _ (tornado).
- (v) A violent storm with very strong winds, especially in the western Atlantic Ocean: _ _ r _ _ _ _ _ (hurricane).
- i) A very strong wind that moves very fast in a spinning movement and causes a lot of damage: _ _ _ _ l _ _ _ _ (whirlwind).

C-6

30.3.2020

II. Using the Definite Article with Names Activity - 2

Here are some examples of 'the' used with proper names. Try to say what these sentences mean. (You may consult a dictionary if you wish. Look at the entry for 'the'.)

1. Mr Singh regularly invites the Amitabh Bachchans and the Shah Rukh Khans to his parties.
Mr Singh regularly invites many men famous like Amitabh Bachchan and Shah Rukh Khan.
2. Many people think that Madhuri Dixit is the Madhubala of our times.
Many people think that Madhuri Dixit today is as talented or pretty as was Madhubala in those days.
3. History is not only the story of the Alexanders, the Napoleons and the Hitlers, but of the ordinary people.
History is not only the story of great heroes like Alexander, Napoleon and Hitler, but also of the ordinary people.

III. Idiomatic Expressions

Match the italicised phrases in Column A with the phrase nearest in meaning in Column B. (Hint: First look for the sentence in the text in which the phrase in Column A occurs.)

A	B
1. I was not <i>unmindful of the fact</i>	<i>had not forgotten or was aware of the fact</i>
2. when my comrades and I were <i>pushed to our limits</i>	<i>felt that we could not endure the suffering any longer</i>
3. to reassure me and <i>keep me going</i>	<i>help me continue to live in hope in this very difficult situation</i>
4. the basic and honourable freedoms of .. <i>earning my keep. ...</i>	<i>earning enough money to live on.</i>

Activity-4 VII. Speaking

Here is an extract adapted from a one-act play. In this extract, angry neighbours who think Joe the Inventor's new spinning machine will make them lose their jobs come to destroy Joe's model of the machine.

You've just seen how contracted forms can make a written text sound like actual speech. Try to make this extract sound more like a real conversation by changing some of the verbs back into contracted forms. Then speak out the lines.

(The door is flung open, and several men tramp in. They carry sticks, and one of them, HOB, has a hammer.)

HOB : Now where is your husband, mistress?

MARY : In his bed. He is sick, and weary. You would not harm him.

HOB : We are going to smash his evil work to pieces. Where is the machine?

SECOND MAN : On the table yonder.

HOB : Then here is the end of it!

[HOB smashes the model, MARY screams.]

HOB : And now for your husband!

MARY : Neighbours, he is a sick man and almost a cripple. You would not hurt him!

HOB : He is planning to take away our daily bread... We will show him what we think of him and his ways!

MARY : You have broken his machine... You have done enough...

ns. HOB : Now where's your husband, mistress?

MARY : In his bed. He's sick and weary. You wouldn't harm him.

HOB : We're going to smash his evil work to pieces. Where's the machine?

SECOND MAN : On the table yonder.

HOB : Then here's the end of it.

MARY : Neighbours, he's a sick man and almost a cripple. You wouldn't hurt him!

HOB : He's planning to take away our daily bread... We'll show him what we think of him and his ways!

MARY : You've broken his machine... You've done enough...

संत निरंकारी पब्लिक विद्यालय, फरीदाबाद
गृह कार्य (20-03-2020 से 30-03-2020)
कक्षा - दसवीं विषय - हिंदी

- प्र० 1. मेरा परिचय (A4 साइज शीट)
- प्र० 2. प्रार्थना पत्र का प्रारूप लिखें व याद करें।
- प्र० 3. चिकित्सावकाश में रहने के लिए प्रधानाचार्य को पत्र लिखिए।
- प्र० 4. विद्यालय छोड़ने का प्रमाण पत्र लेने के लिए प्रधानाचार्य को पत्र लिखिए।
- प्र० 5. पुस्तकालय में हिंदी की पुस्तकें तथा पत्रिकाएँ मंगवाने के लिए विद्यालय के प्रधानाचार्य को पत्र लिखिए।
- प्र० 6. 'दूतकांति दूधपैस्ट' का एक आकर्षक विज्ञापन तैयार कीजिए।
- प्र० 7. आपको अपनी पुरानी स्कूटी बेचनी है, जिसके लिए एक विज्ञापन तैयार कीजिए।
- प्र० 8. कुछ लोग स्कूटर, मोटरबाइक पर हेलमेट नहीं लगाते और दुर्घटना का शिकार हो जाते हैं। इस विषय पर दो मित्रों के बीच बातचीत लिखिए।
- प्र० 9. बढ़ती हुई महंगाई पर चर्चा करते हुए दो मित्रों के बीच संवाद लिखिए।
- प्र० 10. मोबाइल फोन से होने वाले लाभ और हानि के संबंध में दो मित्रों के बीच बातचीत को संवाद रूप में लिखिए।

- प्र० निम्नलिखित वाक्यों को शुद्ध करके लिखिए-
1. जब भी आप आओ, मुझसे मिलो ।
 2. कार्यक्रम में अनेकों लोग पधारे ।
 3. हमारे से काम नहीं होता ।
 4. चार बजने को पंद्रह मिनट हैं ।
 5. आपके स्वास्थ्य कैसे हैं ?
 6. मेरे काले घोड़ा ने सारी घास खा ली ।
 7. आप जाएँगे कहाँ ?
 8. मुझे रात पर नींद नहीं आती ।
 9. तुम थोड़ी देर से क्यों बोले ।
 10. मेरी कमरे में चार दरवाजे हैं ।
 11. मुझमें तेज़ बुझार है ।
 12. मैं तेरे को अपने घर नहीं बुला सकती ।
 13. हमारी तीन बेटियाँ हैं ।
 14. मेरे पास दो बेटे हैं ।
 15. मेरे एक नौकर हैं ।
 16. अब उसको हिम्मत नहीं है ।
 17. आप मुझको भरोसा तो कीजिए ।
 18. जब तुम्हारे भाई के द्वारा यह समाचार मिला तो मुझे बुरा लगा ।
 19. प्रधानाचार्य की आदेश मानना चाहिए ।
 20. इस बात के कहने में अब क्या लाभ ।
 21. पैड़ पर पत्ते गिर रहे हैं ।
 22. वह साइकिल पर आया ।
 23. पैड़ से फल लग रहे हैं ।
 24. वह राम के नाम जपती रहती है ।
 25. उस यह काम जरूरी से करना है ।
 26. इन दिनों मैं आप कहाँ रह रहे हैं ?
 27. सारे देश के अंदर अराजकता व्याप्त है ।
 28. तुम्हारा लालन-पालन कौन किया ?
 29. पिता जी ने पूजा कर रहे हैं ।
 30. अब तो हमें देखने का है ।

Sant Nirankari Public School Sec. 16A, Faridabad
Mathematics Class X

Portfolio Assignments 16th - 23rd March 2020

16th and 17th March - Make list of Mathematics Class X formulaes on A4 ruled sheets.

18th and 19th March - Write Life History of any two Indian Mathematicians on ruled A4 sheets.

20th March - Create atleast two Tangrams using mathematical shapes.

21st March - Create a simple and creative cover page for your portfolio.

23rd March - How do you feel Mathematics is helpful in your day to day life. Write your views on ruled A4 sheets.

Syllabus Assignments

Chapter 1- Real Numbers

24th -30th March - Class X Mathematics Ch 1 Real Numbers
<https://youtu.be/VD8kMYCZXM8> (Kindly visit link before doing assignments)

Chapter 2 - Polynomials

31st March - 2nd April Class X Mathematics Ch 2 Polynomials
<https://youtu.be/5wx-307BDco> (Kindly visit link before doing assignments)

24th March - Class X Mathematics Ch 1 Real Numbers

CHAPTER – 1 REAL NUMBERS

EUCLID'S DIVISION LEMMA

Given positive integers a and b , there exist unique integers q and r satisfying $a = bq + r$, where $0 \leq r < b$.

Here we call 'a' as dividend, 'b' as divisor, 'q' as quotient and 'r' as remainder.

\therefore Dividend = (Divisor \times Quotient) + Remainder

If in Euclid's lemma $r = 0$ then b would be HCF of 'a' and 'b'.

IMPORTANT QUESTIONS

Show that any positive even integer is of the form $6q$, or $6q + 2$, or $6q + 4$, where q is some integer.

Solution: Let x be any positive integer such that $x > 6$. Then, by Euclid's algorithm,

$x = 6q + r$ for some integer $q \geq 0$ and $0 \leq r < 6$.

Therefore, $x = 6q$ or $6q + 1$ or $6q + 2$ or $6q + 3$ or $6q + 4$ or $6q + 5$

Now, $6q$ is an even integer being a multiple of 2.

We know that the sum of two even integers are always even integers.

Therefore, $6q + 2$ and $6q + 4$ are even integers

Hence any positive even integer is of the form $6q$, or $6q + 2$, or $6q + 4$, where q is some integer.

Questions for practice

1. Show that any positive even integer is of the form $4q$, or $4q + 2$, where q is some integer.
2. Show that any positive odd integer is of the form $4q + 1$, or $4q + 3$, where q is some integer.
3. Show that any positive odd integer is of the form $6q + 1$, or $6q + 3$, or $6q + 5$, where q is some integer.
4. Use Euclid's division lemma to show that the square of any positive integer is either of the form $3m$ or $3m + 1$ for some integer m .
5. Use Euclid's division lemma to show that the cube of any positive integer is of the form $9m$, $9m + 1$ or $9m + 8$.
6. Use Euclid's division lemma to show that the square of an odd positive integer can be of the form $6q + 1$ or $6q + 3$ for some integer q .
7. Use Euclid's division lemma to prove that one and only one out of n , $n + 2$ and $n + 4$ is divisible by 3, where n is any positive integer.
8. Use Euclid's division lemma to show that the square of an odd positive integer is of the form $8m + 1$, for some whole number m .
9. Use Euclid's division lemma to 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 lemma to show that cube of any positive integer is of the form $4m$, $4m + 1$ or $4m + 3$, for some integer m .
11. Use Euclid's division lemma to show that the square of any positive integer cannot be of the form $5q + 2$ or $5q + 3$ for any integer q .
12. Use Euclid's division lemma to show that the square of any positive integer cannot be of the form $6m + 2$ or $6m + 5$ for any integer m .
13. Use Euclid's division lemma to show that the square of any odd integer is of the form $4q + 1$, for some integer q .
14. If n is an odd integer, then use Euclid's division lemma to show that $n^2 - 1$ is divisible by 8.
15. Use Euclid's division lemma to prove that if x and y are both odd positive integers, then $x^2 + y^2$ is even but not divisible by 4.
16. Use Euclid's division lemma to prove that one of any three consecutive positive integers must be divisible by 3.

25th March - Class X Mathematics Ch 1 Real Numbers

IMPORTANT QUESTIONS

Use Euclid's division algorithm to find the HCF of 867 and 255

Solution: Since $867 > 255$, we apply the division lemma to 867 and 255 to obtain

$$867 = 255 \times 3 + 102$$

Since remainder $102 \neq 0$, we apply the division lemma to 255 and 102 to obtain

$$255 = 102 \times 2 + 51$$

We consider the new divisor 102 and new remainder 51, and apply the division lemma to obtain

$$102 = 51 \times 2 + 0$$

Since the remainder is zero, the process stops.

Since the divisor at this stage is 51,

Therefore, HCF of 867 and 255 is 51.

Questions for practice

1. Use Euclid's algorithm to find the HCF of 4052 and 12576.
2. Use Euclid's division algorithm to find the HCF of 135 and 225.
3. Use Euclid's division algorithm to find the HCF of 196 and 38220.
4. Use Euclid's division algorithm to find the HCF of 455 and 42.
5. Using Euclid's division algorithm, find which of the following pairs of numbers are co-prime: (i) 231, 396 (ii) 847, 2160

26th March - Class X Mathematics Ch 1 Real Numbers

The Fundamental Theorem of Arithmetic

Every composite number can be expressed (factorised) as a product of primes, and this factorisation is unique, apart from the order in which the prime factors occur.

The prime factorisation of a natural number is unique, except for the order of its factors.

❖ Property of HCF and LCM of two positive integers 'a' and 'b':

$$\triangleright HCF(a,b) \times LCM(a,b) = a \times b$$

$$\triangleright LCM(a,b) = \frac{a \times b}{HCF(a,b)}$$

$$\triangleright HCF(a,b) = \frac{a \times b}{LCM(a,b)}$$

PRIME FACTORISATION METHOD TO FIND HCF AND LCM

HCF(a, b) = Product of the smallest power of each common prime factor in the numbers.

LCM(a, b) = Product of the greatest power of each prime factor, involved in the numbers.

IMPORTANT QUESTIONS

Find the LCM and HCF of 510 and 92 and verify that $LCM \times HCF =$ product of the two numbers

Solution: $510 = 2 \times 3 \times 5 \times 17$

$$92 = 2 \times 2 \times 23 = 2^2 \times 23$$

$$HCF = 2$$

$$LCM = 2^2 \times 3 \times 5 \times 17 \times 23 = 23460$$

$$\text{Product of two numbers} = 510 \times 92 = 46920$$

$$HCF \times LCM = 2 \times 23460 = 46920$$

$$\text{Hence, product of two numbers} = HCF \times LCM$$

Questions for practice

1. Find the HCF and LCM of 6, 72 and 120, using the prime factorisation method.
2. Find the HCF of 96 and 404 by the prime factorisation method. Hence, find their LCM.
3. Find the LCM and HCF of the following pairs of integers and verify that $LCM \times HCF =$ product of the two numbers: (i) 26 and 91 (ii) 336 and 54
4. Find the LCM and HCF of the following integers by applying the prime factorisation method: (i) 12, 15 and 21 (ii) 17, 23 and 29 (iii) 8, 9 and 25
5. Explain why $3 \times 5 \times 7 + 7$ is a composite number.
6. Can the number 6^n , n being a natural number, end with the digit 5? Give reasons.
7. Can the number 4^n , n being a natural number, end with the digit 0? Give reasons.
8. Given that $HCF(306, 657) = 9$, find $LCM(306, 657)$.

27th March - Class X Mathematics Ch 1 Real Numbers

IRRATIONALITY OF NUMBERS

IMPORTANT QUESTIONS

Prove that $\sqrt{5}$ is an irrational number.

Solution: Let $\sqrt{5}$ is a rational number then we have

$$\sqrt{5} = \frac{p}{q}, \text{ where } p \text{ and } q \text{ are co-primes.}$$

$$\Rightarrow p = \sqrt{5}q$$

Squaring both sides, we get

$$p^2 = 5q^2$$

$$\Rightarrow p^2 \text{ is divisible by } 5$$

$$\Rightarrow p \text{ is also divisible by } 5$$

So, assume $p = 5m$ where m is any integer.

Squaring both sides, we get $p^2 = 25m^2$

$$\text{But } p^2 = 5q^2$$

$$\text{Therefore, } 5q^2 = 25m^2$$

$$\Rightarrow q^2 = 5m^2$$

$$\Rightarrow q^2 \text{ is divisible by } 5$$

$$\Rightarrow q \text{ is also divisible by } 5$$

From above we conclude that p and q has one common factor i.e. 5 which contradicts that p and q are co-primes.

Therefore our assumption is wrong.

Hence, $\sqrt{5}$ is an irrational number.

Questions for practice

1. Prove that $\sqrt{2}$ is an irrational number.
2. Prove that $\sqrt{3}$ is an irrational number.
3. Prove that $2 + 5\sqrt{3}$ is an irrational number.
4. Prove that $3 - 2\sqrt{5}$ is an irrational number.
5. Prove that $\sqrt{2} + \sqrt{3}$ is an irrational number.
6. Prove that $\sqrt{3} + \sqrt{5}$ is an irrational number.

28th - 30th March - Class X Mathematics Ch 1 Real Numbers

IMPORTANT QUESTIONS

Without actually performing the long division, state whether the rational numbers $\frac{987}{10500}$ will have a terminating decimal expansion or a non-terminating repeating decimal expansion:

Solution: Given rational number $\frac{987}{10500}$ is not in the simplest form. Dividing numerator and

denominator by 21 we get $\frac{987}{10500} = \frac{987 \div 21}{10500 \div 21} = \frac{47}{500}$ which is in the form of $\frac{p}{q}$

Now $q = 500 = 2^2 \times 5^3$ which is in the form of $2^m \cdot 5^n$, where m, n are non-negative integers. Therefore the given rational number has terminating decimal expansion.

Questions for practice

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:

(i) $\frac{13}{3125}$ (ii) $\frac{129}{2^2 \cdot 5^7 \cdot 7^5}$ (iii) $\frac{77}{210}$ (iv) $\frac{14587}{1250}$ (v) $\frac{833}{2^2 \cdot 5^5 \cdot 7^2}$

MCQ QUESTIONS (1 mark)

- On dividing a positive integer n by 9, we get 7 as a remainder. What will be the remainder if $(3n - 1)$ is divided by 9?
(a) 1 (b) 2 (c) 3 (d) 4
- Euclid's division lemma states that for two positive integers a and b , there exist unique integers q and r such that $a = bq + r$, where r must satisfy
(a) $1 < r < b$ (b) $0 < r \leq b$ (c) $0 \leq r < b$ (d) $0 < r < b$
- Let $x = \frac{7}{20 \times 25}$ be a rational number. Then x has decimal expansion, which terminates:
(a) after four places of decimal (b) after three places of decimal
(c) after two places of decimal (d) after five places of decimal
- The decimal representation of $\frac{71}{150}$ is
(a) a terminating decimal (b) a non-terminating, repeating decimal
(c) a non-terminating and non-repeating decimal (d) none of these
- The decimal expansion of $\frac{63}{72 \times 175}$ is
(a) terminating (b) non-terminating
(c) non-termination and repeating (d) an irrational number
- Which of the following has a terminating decimal expansion?
(a) $\frac{32}{91}$ (b) $\frac{19}{80}$ (c) $\frac{23}{45}$ (d) $\frac{25}{42}$
- If HCF and LCM of two numbers are 4 and 9696, then the product of the two numbers is:
(a) 9696 (b) 24242 (c) 38784 (d) 4848

8. $(2 + \sqrt{3} + \sqrt{5})$ is :
(a) a rational number (b) a natural number (c) an integer number (d) an irrational number
9. If $\left(\frac{9}{7}\right)^3 \times \left(\frac{49}{81}\right)^{2x-6} = \left(\frac{7}{9}\right)^9$, the value of x is:
(a) 12 (b) 9 (c) 8 (d) 6
10. The number .211 2111 21111..... is a
(a) terminating decimal (b) non-terminating decimal
(c) non termination and non-repeating decimal (d) none of these
11. If $(m)^n = 32$ where m and n are positive integers, then the value of $(n)^{mm}$ is:
(a) 32 (b) 25 (c) 5^{10} (d) 5^{25}
12. The number $0.\overline{57}$ in the $\frac{p}{q}$ form $q \neq 0$ is
(a) $\frac{19}{35}$ (b) $\frac{57}{99}$ (c) $\frac{57}{95}$ (d) $\frac{19}{30}$
13. The number $0.\overline{57}$ in the $\frac{p}{q}$ form $q \neq 0$ is
(a) $\frac{26}{45}$ (b) $\frac{13}{27}$ (c) $\frac{57}{99}$ (d) $\frac{13}{29}$
14. Any one of the numbers a, a + 2 and a + 4 is a multiple of:
(a) 2 (b) 3 (c) 5 (d) 7
15. If p is a prime number and p divides k^2 , then p divides:
(a) $2k^2$ (b) k (c) 3k (d) none of these
16. For some integer m, every even integer is of the form
(a) m (b) m + 1 (c) 2m (d) 2m + 1
17. For some integer q, every odd integer is of the form
(a) q (b) q + 1 (c) 2q (d) 2q + 1
18. $n^2 - 1$ is divisible by 8, if n is
(a) an integer (b) a natural number
(c) an odd integer (d) an even integer
19. 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
20. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is
(a) 13 (b) 65 (c) 875 (d) 1750
21. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$; x, y are prime numbers, then HCF (a, b) is
(a) xy (b) xy^2 (c) x^3y^3 (d) x^2y^2

31st March - 2nd April- Class X Mathematics Ch 2 Polynomials

CHAPTER – 2 POLYNOMIALS

QUADRATIC POLYNOMIAL

Relationship between zeroes and coefficients

General form of Quadratic polynomial: $ax^2 + bx + c$, $a \neq 0$

$$\text{Sum of zeroes } (\alpha + \beta) = -\frac{\text{Coefficient of } x}{\text{Coefficient of } x^2} = -\frac{b}{a}$$

$$\text{Product of zeroes } (\alpha\beta) = \frac{\text{Constant term}}{\text{Coefficient of } x^2} = \frac{c}{a}$$

IMPORTANT QUESTIONS

Find a quadratic polynomial, the sum and product of whose zeroes are – 3 and 2, respectively.

Solution: Here, $\alpha + \beta = -3$ and $\alpha\beta = 2$

We know that quadratic polynomial is given by $p(x) = x^2 - (\alpha + \beta)x + \alpha\beta$
 $= x^2 - (-3)x + 2 = x^2 + 3x + 2$

Hence, required quadratic polynomial is $x^2 + 3x + 2$

Find a quadratic polynomial, whose zeroes are – 3 and 2.

Solution: Here, $\alpha = -3$ and $\beta = 2$.

Now, $\alpha + \beta = -3 + 2 = -1$ and $\alpha\beta = (-3)(2) = -6$

We know that quadratic polynomial is given by $p(x) = x^2 - (\alpha + \beta)x + \alpha\beta$
 $= x^2 - (-1)x + (-6) = x^2 + x - 6$

Hence, required quadratic polynomial is $x^2 + x - 6$

Find the zeroes of the quadratic polynomial $x^2 - 2x - 8$ and verify the relationship between the zeroes and the coefficients.

Solution: Here, $p(x) = x^2 - 2x - 8 = 0$

$$x^2 - 4x + 2x - 8 = 0 \Rightarrow x(x - 4) + 2(x - 4) = 0 \Rightarrow (x - 4)(x + 2) = 0$$

$$\Rightarrow x = 4, -2$$

Now, $a = 1$, $b = -2$, $c = -8$, $\alpha = 4$, $\beta = -2$

$$\text{Sum of zeroes, } \alpha + \beta = 4 + (-2) = 2 \text{ and } \frac{-b}{a} = \frac{-(-2)}{1} = 2 \quad \therefore \alpha + \beta = \frac{-b}{a}$$

$$\text{Product of zeroes, } \alpha\beta = 4(-2) = -8 \text{ and } \frac{c}{a} = \frac{-8}{1} = -8 \quad \therefore \alpha\beta = \frac{c}{a}$$

Hence verified.

Questions for practice

1. Find a quadratic polynomial, the sum and product of whose zeroes are – 5 and 3, respectively.

2. Find a quadratic polynomial, whose zeroes are – 4 and 1, respectively.

3. Find a quadratic polynomial, the sum and product of whose zeroes are $\sqrt{2}$ and $-\frac{3}{2}$, respectively. Also find its zeroes.

4. For each of the following, find a quadratic polynomial whose sum and product respectively of the zeroes are as given. Also find the zeroes of these polynomials by factorisation.

$$(i) \frac{-8}{3}, \frac{4}{3} \quad (ii) \frac{21}{8}, \frac{5}{16} \quad (iii) -2\sqrt{3}, -9 \quad (iv) \frac{-3}{2\sqrt{5}}, -\frac{1}{2}$$

5. Find the zeroes of the quadratic polynomial $x^2 + 7x + 10$, and verify the relationship between the zeroes and the coefficients.

6. Find the zeroes of the polynomial $x^2 - 3$ and verify the relationship between the zeroes and the coefficients.
7. Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficients.
8. Find the zeroes of the quadratic polynomial $3x^2 - x - 4$ and verify the relationship between the zeroes and the coefficients.
9. Find the zeroes of the polynomial $x^2 + \frac{1}{6}x - 2$, and verify the relation between the coefficients and the zeroes of the polynomial.
10. Find the zeroes of the quadratic polynomial $4x^2 - 4x + 1$ and verify the relationship between the zeroes and the coefficients.
11. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 3x - 2$, then find a quadratic polynomial whose zeroes are $\frac{1}{2\alpha + \beta}$ and $\frac{1}{2\beta + \alpha}$.
12. If α and β are the zeroes of the quadratic polynomial $f(x) = 2x^2 - 5x + 7$, then find a quadratic polynomial whose zeroes are $2\alpha + 3\beta$ and $2\beta + 3\alpha$.
13. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 1$, then find a quadratic polynomial whose zeroes are $\frac{2\alpha}{\beta}$ and $\frac{2\beta}{\alpha}$.
14. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 2x + 3$, then find a quadratic polynomial whose zeroes are $\alpha + 2$ and $\beta + 2$.
15. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 2x + 3$, then find a quadratic polynomial whose zeroes are $\frac{\alpha - 1}{\alpha + 1}$ and $\frac{\beta - 1}{\beta + 1}$.
16. If α and β are the zeroes of the quadratic polynomial $f(x) = 2x^2 + 5x + k$ such that $\alpha^2 + \beta^2 + \alpha\beta = \frac{21}{4}$, find the value of k .
17. If α and β are the zeroes of the quadratic polynomial $f(x) = kx^2 + 4x + 4$ such that $\alpha^2 + \beta^2 = 24$, find the value of k .
18. If α and β are the zeroes of the quadratic polynomial $f(x) = 4x^2 - 5x - 1$, then find the value of
- (i) $\alpha - \beta$ (ii) $\alpha^2 + \beta^2$ (iii) $\alpha^4 + \beta^4$ (iv) $\alpha\beta^2 + \alpha^2\beta$
- (v) $\frac{1}{\alpha} + \frac{1}{\beta}$ (vi) $\frac{1}{\alpha} + \frac{1}{\beta} - \alpha\beta$ (vii) $\frac{1}{\alpha} - \frac{1}{\beta}$ (viii) $\alpha^3 + \beta^3$
- (ix) $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$ (x) $\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}$ (xi) $\frac{\alpha}{\beta} + \frac{\beta}{\alpha} + 2\left(\frac{1}{\alpha} + \frac{1}{\beta}\right) + 3\alpha\beta$
- (xii) $\alpha^4\beta^3 + \alpha^3\beta^4$ (xiii) $\frac{1}{\alpha} + \frac{1}{\beta} - 2\alpha\beta$ (xiv) $\frac{\alpha^2}{\beta^2} + \frac{\beta^2}{\alpha^2}$

Science Homework/ Assignment

16-21 March 2020

1. Draw the labelled diagram of following from NCERT Book
 - i. Human alimentary canal
 - ii. Human respiratory system
 - iii. Human heart
 - iv. Excretory system in humans
 - v. Human brain
 - vi. Binary fission in Amoeba
 - vii. Budding in hydra
 - viii. Longitudinal section of flower
 - ix. Germination of pollen on stigma
 - x. Female reproductive system
 - xi. Male reproductive system
2. Write the formulas with symbols of elements in A4 sheet
3. Make a portfolio of science

23 march 2020

Prepare a report on causes of Ozone layer depletion, its effects and how can we prevent its depletion on A-4 sheet.

24 March 2020

Do these questions.

1. What is the difference between biodegradable and nonbiodegradable substances?
2. Differentiate between renewable and nonrenewable sources of energy.
3. What changes would you suggest in your home in order to be environment friendly?
4. Can you suggest some changes in your school which would make it environment friendly?
5. What measures would you take to conserve electricity in your house?
6. Suggest few measures for controlling carbon dioxide level in the atmosphere.
7. What is the importance of forest as a resource?
8. How has the construction of tourist spots prove harmful for natural resources?
9. Name the wastes which are generated in your house daily. What measures would you take for their disposal?
10. What is acid rain and what are its harmful effects?

Make a separate notebook and write down these questions today. I will send one worksheet daily. These will help you to do objective type questions of 20 marks.

4. Answer question numbers 4(a) – 4(d) on the basis of your understanding of the following paragraph and the related studied concepts :

India today is facing the problem of overuse of resources, contamination of water and soil and lack of methods of processing the waste. The time has come for the world to say goodbye to “single-use plastics”. Steps must be undertaken to develop environment-friendly substitutes, effective plastic waste collection and methods of its disposal.

Indore treated 15 lakh metric tonnes of waste in just 3 years, through biomining and bioremediation techniques. Bioremediation involves introducing microbes into a landfill to naturally ‘break’ it down and biomining involves using trommel machines to sift through the waste to separate the ‘soil’ and the waste component. The city managed to chip away 15 lakh metric tonnes of waste at a cost of around ₹ 10 crore. A similar experiment was successfully carried out in Ahmedabad also.

- 4(a) State two methods of effective plastic waste collection in your school. 1
- 4(b) Name any two uses of “single-use plastic” in daily life. 1
- 4(c) If we discontinue the use of plastic, how can an environment-friendly substitute be provided ? 1
- 4(d) Do you think microbes will work similarly in landfill sites as they work in the laboratory ? Justify your answer. 1

.31/4/2



7

P.T.O.

3. Answer question numbers 3(a)–(d) on the basis of your understanding of the following paragraph and the related studied concepts.

Today, our eating habits are different from those of a generation ago in every way. Fast foods, takeaways and eating out are parts of our modern lifestyle. Several studies have shown that the lifestyle adopted by a majority of the youth is extremely disorganised and unhealthy. For them, time is money and corporate and personal ambitions are more important than their health.

It is unfortunate that young people are ignorant towards the fact that smoking, consuming calorie-rich food, alcohol and drugs can eventually lead to serious health issues.

Being physically inactive and disinterested will, at the end of the day, negatively effect the quality of their lives and limit their capabilities.

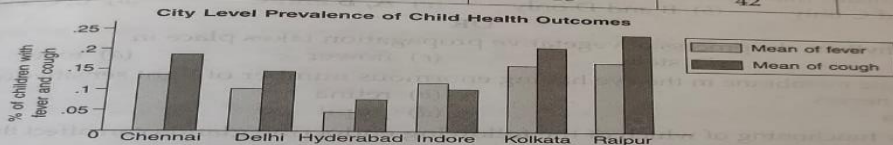
- (a) Which is the most common health problem that people have because of modern lifestyle? 1
- (b) Name the organ which gets badly affected by smoking cigarette. 1
- (c) “Calorie-rich food increases cholesterol level which can lead to various cardiovascular diseases.” Justify this statement. 1

Hepatitis C Virus and Alcohol (14%)

4. Question numbers 4(a)–(d) are based on the two illustrations given below. Answer the questions that follow based on the given data and the related studied concepts.

Table: Status of Ambient Air Quality in 6 metropolitan cities of India

S. No.	Name of City	State	2011		
			SO ₂	NO ₂	PM10
1.	Chennai	Tamil Nadu	9	24	92
2.	Delhi	U.T.	6	61	222
3.	Hyderabad	A.P.	5	28	74
4.	Indore	M.P.	12	14	132
5.	Kolkata	West Bengal	12	65	113
6.	Raipur	Chhattisgarh	15	42	310



- What could be the reason for the ill health of the children of Raipur?
- Which city would have a cleaner environment for the children to be healthy? Why?
- Asthma is a disease of
 - lungs
 - heart
 - stomach
 - brain
- Which of the following statements is NOT correct?
 - Pollutants are the substances that cause pollution.
 - Catalytic converter in vehicles helps in reducing air pollution.
 - SO₂, NO₂ and CO₂ react with rain water and oxygen to form acids.
 - Excessive use of fossil fuels helps in reducing air pollution.

Sample Paper 12

4. Question numbers 4(a)–(d) are based on the two tables given below and the related studied concepts. Study these tables related to blood pressure of a patient and answer the questions that follow.

Table A: Blood Pressure Chart

Remarks	Systolic mm of Hg	Diastolic mm of Hg
Doctor's advice required	200 – 400	100 or higher
Good	100–140	80–89
Excellent	120	80

Table B: Blood Pressure report of Patient

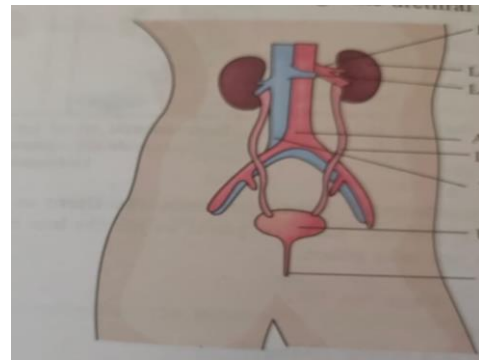
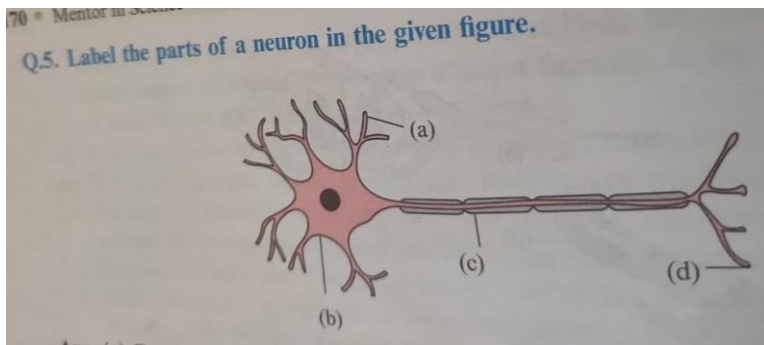
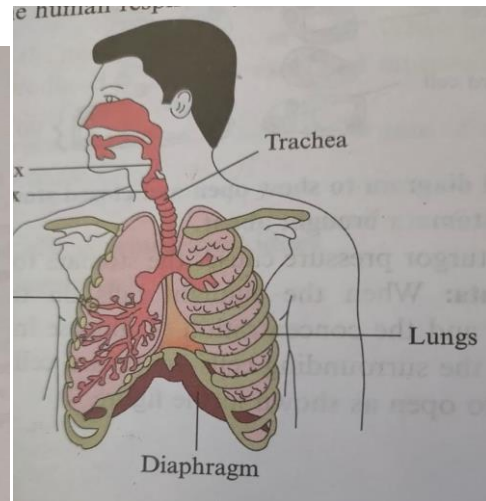
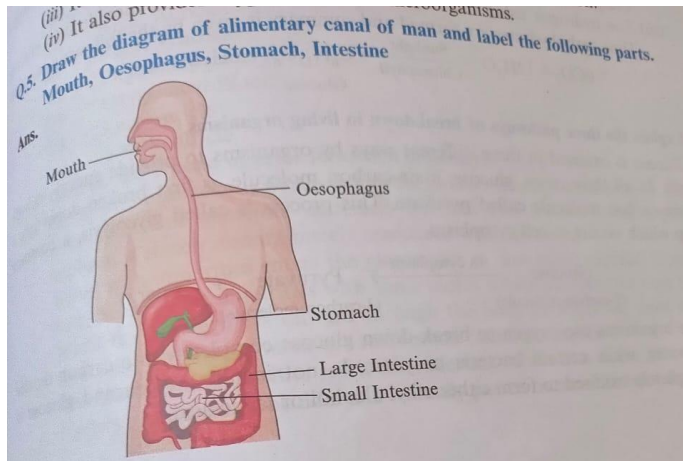
Checking Time	Systolic mm of Hg	Diastolic mm of Hg
Blood pressure for a week	130–150	100–120

- Refer Table B that shows the blood pressure of a patient. Which disease can be diagnosed from the given data?
- What is meant by systolic pressure?
- Refer Table A and find out the normal diastolic pressure value.
 - 140 mm of Hg
 - 100 mm of Hg
 - 80 mm of Hg
 - 120 mm of Hg
- The force that blood exerts against the wall of a blood vessel is called _____.
 - Blood pressure
 - hypertension
 - osmoregulation
 - Transportation

The number of pair(s) of sex chromosomes in the _____

28 March 2020

Good morning students, All of you have done these diagrams already in class 8th and 9th. It's time to revise again in 10th. So draw and label its parts. Learn these diagrams by heart. I will take test when we come back.



30 March 2020

Good evening students, you have to learn these questions. Answers are already here and very easy

Life Processes = 137

How does aerobic respiration differ from anaerobic respiration?

S.No.	Aerobic Respiration	Anaerobic Respiration
1.	Oxygen is used for oxidation of food.	No oxygen is used.
2.	Complete breakdown of substrate.	Incomplete breakdown of substrate.
3.	End products obtained are carbon dioxide and water.	End products obtained are ethanol and carbon dioxide.
4.	Large amount of energy is released.	Relatively less energy is released.

Differentiate between an artery and a vein. (CBSE Sample Paper 2017)

S.No.	Artery	Vein
1.	Arteries have thick and elastic wall.	Veins have thin and non-elastic wall.
2.	They carry blood from heart to different organs.	They carry blood from different organs to heart.
3.	No valves are present.	Valves at regular distances are present.
4.	Blood flows under pressure.	Blood flows without pressure.
5.	They carry oxygenated blood.	They carry deoxygenated blood.

What are the adaptations of leaf for photosynthesis?

carry out photosynthesis efficiently, leaves show following adaptations to absorb maximum light:

- Leaves are flat and wide to provide large surface area for maximum light absorption.
- Leaves are attached to shoot making an angle.
- They have stomata on one side or both sides for exchange of gases.
- Chloroplasts are properly distributed in mesophyll tissue.

Autotroph		Heterotroph
S.No.	These organisms prepare their own food.	These organisms are dependent on other organisms for food.
1.	They possess chloroplast.	No chloroplast is found.
2.	They use raw materials—CO ₂ and water to make organic food using energy from the Sun.	They obtain ready-made organic food either from plants or other animals.
3.	They use carbon dioxide and release oxygen during day time e.g., green plants and some bacteria.	They always use oxygen and release carbon dioxide e.g. animals and non-green plants.
4.		

3. Is 'nutrition' a necessity for an organism? Discuss.

Ans. Nutrition is a necessity for all organisms as it is the source of energy that sustains life processes.

4. What would happen if green plants disappear from the earth?

Ans. Green plants on the earth are the only life forms that are capable of converting solar energy into all forms of energy found on the earth. If green plants will disappear from the earth, there will be incomplete food cycle and oxygen cycle. Without food and oxygen – the basic requirements of all lives — no life will be found on the earth.

Leaves of a healthy potted plant were coated with vasoline. Will this plant remain healthy for long?

Long Answer Type Questions

Q.1. Explain the process of nutrition in Amoeba.

Ans. Nutrition in Amoeba is holozoic. It has the following steps:

- (i) **Ingestion:** Amoeba ingests food by the entire surface of its body with the help of pseudopodia. The pseudopodia fuse over the food particle forming a food vacuole.
- (ii) **Digestion:** It occurs inside the food vacuole. The complex food materials are broken down into simpler ones with the help of enzymes.
- (iii) **Absorption:** The digested food diffuses into the cytoplasm and is assimilated.
- (iv) **Egestion:** The undigested food moves near the surface of the cell and expelled out.

Q.2. Describe the alimentary canal of man.

Ans. Alimentary canal in human beings is very long extending from mouth to anus.

- (i) **Mouth:** It comprises buccal cavity and pharynx. Upper and lower jaws are provided with four different types of teeth. On the floor of mouth is a muscular tongue.
- (ii) **Pharynx:** Buccal cavity opens into pharynx which is the common passage for food and air. It leads to oesophagus.
- (iii) **Oesophagus:** It is also called food pipe, the food passes down through it by peristalsis and pushes forward.
- (iv) **Stomach:** Stomach is the thickest and muscular organ lies below the diaphragm. Food stays here for a few hours and gets mixed thoroughly.
- (v) **Small intestine:** Stomach is connected to the upper first part of intestine. It is connected to liver and pancreas through their respective ducts. The digestion is completed here and the digested food is absorbed with the help of villi.
- (vi) **Large intestine:** It is relatively wider and is differentiated into colon and rectum. Colon forms invaginated U-shaped structure and rectum is the last organ of the alimentary canal.
- (vii) **Rectum:** Here waste and undigested food are stored for some time. The waste is eliminated through anus.

31 March 2020

Good evening students, you have to do these questions.

2. Define speciation.

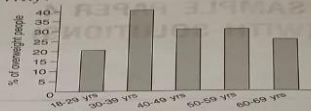
3. Answer question numbers 3(a)–(d) on the basis of your understanding of the following paragraph and the related studied concepts.

Ozone or trioxygen is an inorganic molecule with the chemical formula O₃. It is a pale blue gas with a distinctively pungent smell. Ozone is an allotrope of oxygen and is less stable than oxygen. Although ozone is a poisonous gas but at higher levels of the atmosphere (stratosphere) it acts as a protective blanket. It absorbs the harmful ultraviolet rays reaching the earth's surface. It was found that this layer is depleting day by day due to changes in human lifestyle.

Chemicals released into the atmosphere from aerosol repellants, refrigerators, air conditioners, etc. are the main causes of depletion of ozone layer.

- (a) Name the chemical which is mainly responsible for the depletion of ozone layer.
- (b) Scientists say that there is a hole in ozone layer. Is there actually a hole in ozone layer? Why do they say so?
- (c) Name the component required for the conversion of O₂ into O₃.

(d) Based on the data shown below, find out which age group has the maximum overweight people. Why?



4. Answer question numbers 4(a)-(d) on the basis of your understanding of the following paragraph and the related studied concepts.

Bio-mass, a fuel developed from organic materials, is a renewable and sustainable energy used to create electricity or other forms of power. It includes wood, crop residues.

In villages, women still use dried cowdung cakes as a fuel to cook food and for other purposes. Burning of cowdung cakes as fuel produces a lot of smoke and also depletes nutrients such as nitrogen and phosphorus.

(a) Name the smokeless fuel that can be prepared from the cowdung.
 (b) 'Cowdung cakes have low calorific value'. What is meant by this statement?
 (c) Which of the following statements is correct about bio-mass?

- (i) It converts chemical energy into kinetic energy.
- (ii) It is a renewable source of energy.
- (iii) It is the inorganic matter used as fuel.
- (iv) It is an organic matter produced by plants only.

(d) Which of the following are examples of biodegradable wastes?

- (i) Plastic and cowdung cakes
- (ii) Cowdung cakes and vegetable peels
- (iii) Plastic and rubber
- (iv) Glass and the cowdung cakes

5. P, Q and R are three elements with atomic numbers $n-1$, n and $n+1$ respectively. If Q is an inert gas, the molecular formula of the compound formed when P and R combine will be

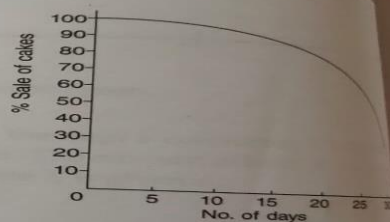
- (a) P_2R
- (b) PR_2
- (c) PR
- (d) P_2R_3

3. Answer question numbers 3(a)-(d) on the basis of your understanding of the following paragraph and the related studied concepts.

To make a bread dough, a baker mixes flour, sugar and baking powder (mixture of sodium bicarbonate and tartaric acid). After mixing all the ingredients, the dough is placed in a container for a few hours (in an oven). On heating, the mixture releases carbon dioxide gas which forms bubbles behind. This increases the size of the bread and makes it soft and spongy. Tartaric acid helps in removing bitter taste.

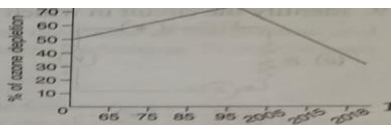
- (a) Why does the bread dough rise?
- (b) 'Yeast can be used in place of baking powder for making bread dough'. What is yeast?
- (c) What would you use to measure pH of baking powder?
- (d) Based on the graph represented alongside, answer the following questions:

A bakery shop started using baking soda instead of baking powder for baking cakes. What could be the reason for the decrease in the sale of cakes?



(d) Study the graph given alongside.

It indicates that the depletion of ozone layer is reducing after 1995. What may be the probable reason behind it?



4. Answer question numbers 4(a)-(d) on the basis of your understanding of the following paragraph and the related studied concepts.

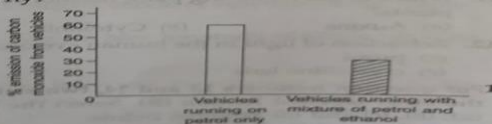
Ethanol or ethyl alcohol is an important organic compound. It burns in air to form carbon dioxide and water. It is used in industries, hospitals and homes. Ethanol is supplied to hospitals and research laboratories without charging different taxes. Therefore, to prevent its misuse for drinking, it is mixed with some poisonous chemicals. Drinking such an alcohol causes blindness, liver damage and even death.

(a) Which substance is most commonly added to ethyl alcohol to make it unfit for drinking?

(b) Which organ in human body is most affected by the excessive intake of alcoholic drinks?

(c) Ethanol has no effect on litmus solutions. Why?

(d) Based on the data represented in the bar graph given alongside, why is there a reduction in emission of carbon monoxide from vehicles when a mixture of petrol and ethanol was used as fuel?



AASIGNMENT OF CLASS X- SOCIAL SCIENCE

20th MARCH 2020-Project

Social Issues in India

Introduction

Every society has some problems, and these are commonly termed as **social issues**. It is a problem that is affecting a considerable percentage of a nation's or global population or society.

Social issues (also social problem, social evil, and social conflict) refers to any undesirable condition that is opposed either by the whole society or by a section of the society. It is an unwanted social condition, often objectionable, the continuance of which is harmful for the society.

Social issues are caused by some factors that are beyond the control of a single individual and cause a lot of conflict on the moral grounds.

There are some common characteristics of all social problems. This include:

- Social problems are those situations that have bad and **injurious consequences** for society.
- Social problems arise when there is a deviation of the people or the nature of society from the ideal situation.
- Almost all social problems have some common origin.
- Many of the social issues are interconnected, and if one is solved, then others also get solved.
- Social problems have a huge impact on society and may affect any section of the society.
- Social issues need a collective approach to be solved. □ Almost all societies in this world have social issues.

India is facing a large number of social issues such as caste system, child labour, illiteracy, gender inequality, superstitions, religious conflicts, and many more. It is high time that the society gets relief from these undesirable social evils.

Major Social Issues: We have prepared a list of major social issues in India. They are briefly discussed below in the following order:

1. Caste system
2. Poverty
3. Child labour
4. Child marriage
5. Illiteracy

6. Low status of women
7. Gender inequality at work
8. Dowry system
9. Sati practice
10. Superstition
11. Sanitation and cleanliness
12. Religious conflicts
13. Beggary
14. Juvenile delinquency

1. Caste system

Introduction: Caste system is a system of defining class or assigning status to individuals from the time of birth. In India, the caste system is mainly profession based. India has been a victim of caste system since ages.

The causes, effects and solutions of Caste system in India are discussed below:

Causes: The main reason behind the growth of Caste system in India is the assignment of caste based on job specialization. There were different types of jobs in the society which were done by the people based on their capability. This division of job based on specialization resulted into caste system.

Four classes of Caste system: The four classes includes:

1. **The Brahmins** – the priestly class. They were mainly engaged in religious and priestly activities. They were also appointed as advisors to the Kings.
2. **The Kshatriyas** – the warrior and ruler class. They were mainly engaged in warfare activities.
3. **The Vaishyas** – the trader class. They were mainly engaged in business, agriculture, and trading activities.
4. **The Sudras** – the lowest of the four traditional class engaged as domestic servants and laborers, etc.

Negative effects of Caste system: Caste system has many disadvantages such as:

- Encourages untouchability,
- Promotes Inequality,
- Undemocratic in nature,
- Fake differentiation in superiority and inferiority.
- Increases gap between upper and lower caste people.

People are victimized by caste. There is discrimination which divides the society, and anti-social elements take advantage of this. Caste system is also a danger towards the National integration of the

country. Caste system is a major cause for many inhuman and immoral social practices such as untouchability, child marriage, sati system (sati pratha), etc.

Solution:

- Education will help the people to become aware of the disadvantages of Caste system.
- There is a need for widespread social change in favor of equality of human beings. Caste system can be discouraged through social education in rural areas.
- There should be special classes at schools that imparts value and moral education to the children.
- Superstitious people are extremely fearful and discourage any change in social norms. Education will help shed away superstition, which in turn, will help shed casteism as well.
- With better education and economic progress, people belonging to diverse caste get opportunity to mix and work together. Many of them become friends while working together on a project.

2. Poverty

Introduction: Poverty refers to a situation when people's basic needs are not fulfilled. When people doesn't have the necessary food to eat or clothes to wear or shelter to stay then its called poverty. Life becomes very difficult for people with income is below the poverty line (BPL).

Poverty is a vicious circle and is the lack of money or material possessions. Social, political, as well as economic elements, contribute to poverty. It leads to a lack of basic life necessities and comfort. Illiteracy is a major cause and effect of poverty. These people have a low standard of living and poverty is the cause of many social evils.

The causes, effects and solutions for poverty in India are discussed below:

Causes: The major reasons or causes of poverty are:

- People don't get proper education which leads to poverty. People are poor because they are illiterate, and they are illiterate because they cannot afford education. Illiteracy and poverty stays side-by-side. They both are the cause and effect of each other.
- In case where the resources and opportunities are limited and the population is high, there arises a situation of joblessness which ultimately leads to poverty.
- When a large number of people live in poverty, there is limited scope for the development of country's economy.
- Some natural and environmental problems such as lack of rainfall, drought, etc. often lead to poverty. There are many other reasons also like caste system, unemployment, etc.

Effects: The negative effects of poverty are mentioned below:

- Poor people will always have to depend on others to survive.

- Low quality foods may leads to bad nutrition.
- Poor people have less liberty for the choice of profession.
- Poverty may affect the moral and self-esteem of people living in extreme hardship.
- Poverty also results in building stress which ultimately affects the relationship of people.
- The low standard of living prevails among poor people.

Solutions: The solutions for poverty are discussed below:

- Poverty can be checked by increasing job opportunities. It will decrease the rate of unemployment which ultimately results in decrease of poverty in economy.
- Government should take more steps towards charity, trusts and have some transparency while spending money in those social institutions.
- There is a need for initiatives of paid leave to the workers.
- The education system should be reformed and initiatives should be taken to bring more children to schools.

3. Child labour

Introduction: Child labour is a system of involving children in any economic activity.

Children at the age of playing engage themselves into economic activity for their family. Child labour can be seen throughout the country in a wide way.

Child labour means getting children who are minors of age to do work. Even if children are paid for the labour that they perform, child labour is still deeply wrong.

The causes, effects and solution of Child labour are briefly mentioned below:

Causes: The major causes of child labour in India are:

- Unemployment,
- Poverty,
- Illiteracy, and
- Low standard of living.

If the above problems can be resolved from the Indian society, then the country will have less social issues.

When a family is poor, they often have no choice but to send their children out to work. If the child's parents or other relatives are sick, or poor, more pressure will be put on children to go out to work to provide for themselves and their families.

Due to unemployment of the parents, children do not get proper education and are forced to get involved in child labour. Educated people are less likely to engage their child as child labours. In general, educated people want to keep up a certain level of standard and live a respectable life. On the contrary, illiterate people are not even aware of the evil effects of child labour.

Effects: The negative effects or major disadvantages of child labour include:

- Child labour is an inhuman practice. The mental growth of the children engaged in child labour is checked.
- Children get less time and opportunity to go to school. They are unable to participate fully in education. They are deprived from education which makes them illiterate.
- Child labour obstructs personal growth. The standard of living of people remains low.
- Child labour destroys their childhood. Child labour does not only limit children's ability to grow emotionally and to relish a period of carefree innocence before they are launched into adulthood.
- Child Labour deprives children of the ability to play, to make friends, to daydream, to relax, and to enjoy all of the key aspects of a normal, desirable childhood.
- Children are the future pillars of the economy and involving them into child labour will only make those pillars weak. Ultimately, child labour affects the country's growth.

Solution: The main solution to child labour is:

- Imparting education and knowledge to children.
- If incomes of the parents can be increased then it is possible for the children's to get education.
- Government will have to take more steps towards proper enforcement of labour laws.
- People who are employed and are above the poverty line should take steps towards replacing child workers with adult workers. It will benefit not only the society, but the country at large.

Child labour is an extremely sad and worrying phenomenon that unfortunately still needs to be eradicated in many parts of the world, including India.

4. Child marriage

Introduction: Child marriage refers to the marriage of individuals below the prescribed limit of age. Marriage is to be considered legal as per the Indian Law, when the groom's age is 21 and above and bride's age is 18 and above.

Though, child marriage has caused problems to both and boys and girls, the most severe victims of the evil practice are the girls.

The causes, effects and solutions for the social problem of child marriage are given below:

Causes: The causes or the main reason behind the child marriage is the poor economic condition of the family of the marriage parties.

Besides there are other reasons also for child marriage like illiteracy, providing security to their daughters by marrying them to secured person, child trafficking, etc.

Negative effects of child marriage: The negative effects of child marriage include the following:

- Due to child marriage, the girls become pregnant at an early age. Since their bodies are not properly developed to have kids, it may lead to early maternal death. In many of the cases, the infant baby's health doesn't seem good.
- Child marriage also leads to illiteracy and poverty. A girl who is married at an early age is deprived of opportunities for education and personal growth.
- Due to less compatibility and understanding, relationship between the couples hampers.

Solution: Education is the only and the best way to stop child marriage. Educated people from society should raise voice against child marriage.

Gender equality and women education is very important to stop the evil practice of child marriage. The girls become extremely dependent upon her parents because of lack of education. As such, she is not in a position to speak against the will of her parents. If a girl gets equal opportunity to get educated, then she will be in a better position to decide, what that is best for her future.

Government should take steps to enforce the laws on child marriage. The problem of child marriage can be solved by raising awareness about the disadvantages of child marriage.

5. Illiteracy

Introduction: Illiteracy refers to the inability to read and/or write. The problem of illiteracy is a major social issue in India. The problem has spread through-out the country in a wide way. It is one of the most dangerous obstacles in the economy's growth. People with no education find it difficult to get jobs

and remain poor. They are at risk of poor diet, manual jobs, worse physical and mental health. It impacts their social situations too.

The major causes, negative effects and solutions of the problem of Illiteracy in India are discussed below:

Reason: The major reasons of illiteracy in India are discussed below:

- Since many adults in India are illiterate, they don't understand the importance of getting education for their children.
- Due to the problem of unemployment and poverty, children get little opportunity for proper education.
- Many people stay illiterate due to some physical or mental disabilities.
- Other social evils like caste system, gender inequality also cause illiteracy.

Negative effects/ Disadvantages:

- One of the major cause for crimes is illiteracy. Due to illiteracy issue, rates of crime are gradually increasing and health, productivity and growth of the country is gradually decreasing.
- Most illiterate people are unaware of the benefits of maintaining cleanliness and hygiene.
- Illiterate people find it very difficulty to secure a good job and earn livelihood. If a person is looking for a means to earn and work, but is not getting it then it is known as unemployment. This social problem leads to frustration.
- Overpopulation is a huge increase in the number of people, and it is caused by some factors out of which illiteracy is a major one.

Solution: The only and the best way to eradicate illiteracy from the society are by education.

The scheme for mid-day meals at schools is a welcome step.

Government should take steps to promote free education for the backward class of the society in government schools.

Government also look at the matter that people get fair payment for their work. Appropriate steps should be taken to create more employment opportunities for adults, so that they can educate their children by sending them to school.

6. Low status of women

Introduction: Low status of women refers to the inferior position of women (in comparison to men) in the society. This reflects the narrow mindset of the society. It is seen all over the country, but widely prevalent in the backward areas.

The causes, negative impact, and solutions of the problem of low status of women are briefly discussed below:

Causes: Narrow mindset of the society is the main reasons behind this problem. Women in India are considered inferior than men since ages. A large part of the society believes that men are more capable to earn more than their women. It is widely seen that the male members of the family try to control the activities of the female members, which leads to the low status of women.

Negative impact: The negative impact of the lower status of women are:

- Women do not get the adequate chance to do something to contribute to the society.
- Since the status of women in society is low, people want a boy child instead of a girl child. This intensifies the problem of female foeticide.

Solution: The solution to the problem is:

- The empowerment of women is of utmost importance for solving the problem.
- Awareness must be created to change the narrow mindset of the society. Campaigns must be launched to acknowledge the role and contribution of women in the society.
- Education can also help to solve the problem of low status of women in the society.
- Mass-media campaigns should be promoted.

7. Gender inequality at work:

Introduction: Inequality at work refers to any type of discrimination in working environment based on caste, gender, race, color, etc. But gender inequality at work means discrimination or unequal treatment between male and female workers.

Causes: The main reason behind the issue of gender inequality at work is the mindset and culture.

The ego of male members prevents the female members to enjoy equal position at work places. People also do this because of un-awareness.

Impact and effects: The main impact of gender inequality at work is that society gets shrink and deprived of the minds of the female worker. It also gives rise to low status of women issue in the society.

Solution: The solution for social issue of gender inequality at work is in the hands of people themselves. People should start training and impart proper education for gender equality.

People should also change their perception that women will get less salary in comparison to men. For that, people should introduce successful business women as the role model at their workplaces.

8. Dowry system

Introduction: Dowry is one of the most evil practices that are prevalent in the Indian society. Dowry system is actually the transfer of money, property and other valuable assets of bride's family to the groom's family on the eve of marriage.

Reason: There are several reasons of prevailing dowry system in the society like:

- Tradition of asking for dowry at the time of marriage.
- The greed among the family of groom for quick and easy money. □ People also ask for dowry for maintaining status.

Disadvantages: The major disadvantages of Dowry system in the society is:

- The bride's family who generally belong to middle and low-class has to face the bitter-side of it. Bride's family spend lavishly during the marriage. Because of this social evil, some families lose huge money. □ Parents often take loan for their daughter's marriage.
- In many cases, by watching the poor situation of their parents, bride becomes mentally affected.
- Sometimes, the mental torture due to dowry leads to suicidal tendencies.
- Many cases of dowry deaths have been seen in past years.
- Emotional torture and divorce are other evil effects of dowry system.

Solution: The solution to stop the practice of this evil system is in our hands only.

- People should stop discrimination between a boy and a girl.
- Girls should also be allowed to have their education and proper knowledge.
- Awareness must be created and for these people with the help of media.
- Last, but not the least, parents should change the thoughts of dowry from their mind and children should stand against their family for doing this.

9. Sati System (Sati Practice)

Introduction: Sati system or pratha is one of the cruelest, evil, inhuman and immoral social practices prevailing in our country.

Sati system refers to the act of committing suicide by the widowed women on the funeral pyre of his husband. This is an inhuman act.

In 1987, Roop Kanwar committed sati at the age of 18. After this incident, both the State and the Central Government enacted acts to abolish the Sati system.

Disadvantages: The main disadvantages are:

- Sati System in itself is an inhuman practice.
- Women are deprived of their basic right to live their life.
- Sati system also shows the domination of men over the women.
- Sati system reduces the self-respect of women and brings down the status of women in the society.

Causes: The causes behind the Sati system are:

- **To maintain the status:** As people of high caste were not allowed to marry with low-caste, so after the death of her husband, she was burned alive only to save the status
- Sati was also committed to save her sexuality with the other member of the society.
- Sati was also practiced by women to show her love and devotion towards her husband.
- In the backward areas where widows were treated as untouchables were forced to commit sati.

Solution: The solutions for the evil practice of sati are:

- Educating the people through mass communication.
- Bringing a change in the perspective of the people that a widow person cannot marry with anyone.

Government has already enacted the Sati Prevention Law. Sati Practice is illegal in India. The evil is rapidly diminishing from the Indian Society. However, awareness has to be created to stop the sati practice completely.

10. Superstition

Introduction: Superstition refers to the irrational beliefs of supernatural forces. Superstition is one of the major social issues affecting the entire country.

It's a belief of human beings that there are some supernatural causes behind the bad events. Science doesn't believe in this type of supernatural causality because science always tries to give scientific explanation for every event. But, deep down inside human beings have their own belief.

There are many superstitions prevailing in the country. Human beings have the tendency to believe bad before the good.

Reason: The main reason behind superstitions is:

- **Fear:** Fear is the main obstacles for everything. Superstition arises due to human fear.
- **Lack of Knowledge:** Basically superstition arises due to lack of knowledge. □ **Religion, tradition and social practices** are others causes of superstition.

Disadvantages: The major disadvantages of being superstitious are:

- **Fear:** People start to think less broadly and always develop constant fear in mind. This fear affects not only the individual but also his family and society.
- **Waste time and energy:** People waste of much time and efforts.
- People stop for few seconds whenever they sneeze. All these arise due to human fear and imagination.

Solution: The main solution is to get knowledge and education because knowing nothing causes fear in mind which ultimately arise superstition.

By adjusting or gaining knowledge, mind can develop the reason behind the occurrence of superstition and one can understand very well that these things doesn't affect anybody's life.

Also by being always positive, one can get rid of those superstitions.

11. Sanitation and cleanliness

Introduction: Sanitation and cleanliness is a basic problem and one of the important social issues of our country. People should clean their areas and take care of personal hygiene to stay healthy and away from any diseases.

People should clean the areas of keeping food; clean their area of staying to promote cleanliness. People should maintain adequate sewage disposal system so that the public health is not put at risk.

Disadvantages: There are many casualties of not having sanitation and proper cleanliness.

- People suffer from various diseases such as diarrhea, malnutrition, dengue, malaria and many more.
- It also suffers children's development.

Reason: The major reason behind this is the carelessness and laziness of people themselves. The people themselves create the problem of dirt and unhealthy environment.

People think of their own only and do not think of others. People do not mind to throw garbage in open areas which may negatively affect the environment.

Solution: The solution is in the hands of the people itself.

- People have to start to make their area clean and stay healthy.
- People should make a proper area for sanitation so that public health will not suffer.
- Mass awareness programmes are already initiated by different institutions, organisations and government bodies to save human race.

12. Religious conflicts

Introduction: Religious conflicts are among the most harmful social issues of today. Sometimes violence, war, conflict, etc. arises because of religious fanaticism.

Causes: The causes are briefly discussed as follows:

- **Difference in beliefs:** People belonging to different religions have difference in their beliefs. This difference often leads to conflict.
- **Lack of education:** Illiterate people can be easily mis-guided by people who want to spread violence in the name of religion.

Negative effects: Sometimes conflicts between communities leads to violence and crimes. People become fearful and it affects the overall progress of the country. The lack of communal harmony in society leads to disunity.

Solutions: The solution for religious violence is in the hands of the people only. People should gain proper knowledge and develop better understanding. By removing the thoughts of cruelty, one can correctly judge what's right or wrong. Awareness must be created and for this media will be very useful.

13. Beggary

Introduction: Beggary is another social problem in our country. People who are in extreme situation of need and poverty are called beggars. The state of being a beggar is called beggary.

Causes: There are many causes behind the beggary problem in India. Some of the reasons behind beggary are poverty, unemployment, illiteracy, social customs, physical disability, mental state, disease and many more.

Impacts and effects: The main disadvantages of beggary is that

- Beggars largely depend on what they get from the people and this is in fact a big problem because they start to depend totally on this and stop finding any other source of income.
- Now, they have become burden to the society and they in fact forcefully made their children to do the same.
- The cruelest part of beggary is that they sometimes allow doing anything to their own body for money. They are sometimes forced to cut their hands or legs.

Solution: Government has to take large initiatives to remove the problem of beggary from the society like providing job security, recruiting more employees in the Governmental sectors and many more. Beggary problem can also be in control if the children who are begging can be put in the Govt. schools for education because education is the main key to eradicate any social problem.

14. Juvenile delinquency

Introduction: Juvenile delinquency is also termed as Teenage Crime. Basically, juvenile delinquency refers to the crimes committed by minors. The crimes by teenage boys or girls are generally done without having proper knowledge of it as they know very little about the world.

Negative effects: The crimes by minors affects not only the children but to the family and the society. Children's are the future generations of the country. Education of the children is hampered and the status and reputation of the family also goes down.

People become less secured and there is always a sense of tension and distress.

Causes: There are numerous reasons behind Juvenile delinquency, such as:

- **Lack of knowledge:** They know very little about the outside world. They sometimes commit crime unknowingly.
- **Trauma:** Trauma of any childhood or teenage incident may have negative effect on mind.
- **Violent films and movies:** Watching any stuff like murder, violence, etc. may again negatively affect the mind of the teenager. □ **Family Disturbance** also cause for the crime.

Solutions: There are many organisations who deal with the problem of Juvenile delinquency. They are established to help those children who are involved in it. They increase their thinking ability and decision-making skills. They start to understand the meaning of Juvenile delinquency and the results of it. There are rehabilitation centres and consultancies also run by the Government who treat those children and make them a good person.

Conclusion

Social problems can be solved by society itself. These issues serve as a barrier to the progress of society, and hence we should strive together to end them. If we do not unite against them, then these social issues will continue to rise. It can be solved only by mass awareness, education, humanity, and positive attitude.

(or)

ECONOMICS PROJECT

Topic-1 : Consumer Awareness

> **Design a project file on the basis of the topic "CONSUMER AWARENESS".**
JAGO GRAHAK JAGO.

Your project must contain the following topics :

- ✓ Index
- ✓ Who are the consumers ?
- ✓ Ways to aware consumer's in urban and rural areas.
- ✓ What are the consumer's rights ?
- ✓ What are the duties of the consumer's ?
- ✓ Why do we need consumer awareness programmes ?
- ✓ Detailed Questionnaire for survey.
- ✓ Classify the data collected from different people and write an analytic report.
- ✓ Diagrammatic representation of the collected data.
- ✓ Analyse the bar graph and conclude your report.
- ✓ Objectives behind this project.
- ✓ Acknowledgement
- ✓ Certificate of Appreciation.
- ✓ Bibliography



> **One sample questionnaire is given for your reference :**

> **Sample Questionnaire**

S.No.	Questions	Yes	No
1.	How many times you visit a mall ?		
2.	Do you shop online also ?		
3.	Which brand of juice you usually buy from a market ?		
4.	Do you regularly check MRP & the price offered ?		
5.	Do you check manufacturing and expiry dates of the products ?		
6.	Is there any difference between MRP and the price offered by the seller ?		

2. Prepare a wall magazine.

Gather newspaper reports or articles related to Bata Shoes company in which this company is fined by Supreme Court for charging their costmers for carrybags.

- Write a complete report on this news.
- Which consumer right watated in this case ?
- Where does the applicant file a case ?
- What is PIL ?
- Discuss the outcomes of the above said case.

3. Prepare a powerpoint presentation on Copra dnd its significance.

Topics to be included :

- When was it started ?
- Who had started it ?
- What was the purpose of COPRA ?
- What suggestions would you like to give for the effective working of COPRA ?

4. Adulteration of foods in dangerous : "Say No to It".

Prepare a chart on the topic given above.

Material required :

- 1 Chart paper
- Colours and glitter pen
- Other decorature materials it required.

5. Advertisements with false claims.

Prepare a scrap fil on the topic given above.

Topics to be included :

- What is advertisement ?
- How they attract consumers ?
- Dark side of the advertisements.
- Case study on any 2 advertisements having false promises.
- How can we control them ?
- How are they affecting use ?

Material required :

- Scrap file
- Colours and decorative materials
- Pictures and images of various advertisements.

5. Water is an integral part of our life. We need water for almost everything. Water is soul of our life.

We forgot that the Water Cycle and the life cycle are one : 'Jacques Cousteau'. Keeping the above given statement in mind, prepare a project file on the different ways of the conservation of water resources.

Material required :

- Scrap file
- Colours
- Decorative materials
- Pictures of water conservation methods

POLITICAL SCIENCE PROJECT

Topic-1 : Social Issues

- > Design an E-book/Vision board to showcase various social issues and suggestion/ways to minimise them.



Content to be included in E-board/Vision board :

- ✓ What are the responsibilities and roles of the students to tackle various social issues ?
- ✓ **Topics :**
 - Religious conflicts
 - Lack of economic opportunities
 - Government's accountability and transparency
 - Safety and security of citizens
 - Illiteracy
 - Child Abuse
 - Drug Abuse

NOTE : Choose any two topics for your project to discuss.

UNIT-5 : PROJECT WORK

Topics for Project Work on Sustainable Development/Social Issues/ Consumer Awareness

GEOGRAPHY PROJECT

Topic-1 : Sustainable Development

- > Create an **ORGANIC GARDEN** in your house using recyclable materials.

Materials Required :

- ✓ Plastic canes, tub, bucket, bottles, mugs, etc.
- ✓ Food leftovers and leaves of dead plants to make organic manures.
- ✓ Any ten plants of your choice.

How to proceed :

- ✓ Choose any one place/corner of your house to make an organic garden.
- ✓ Grow your plant in a recyclable object i.e old canes, tub, bucket , etc.
- ✓ Use organic manure as fertilizer.
- ✓ Water your plant regularly.
- ✓ Observe growth of your plant on weekly basis.
- ✓ Now you have to create a blog named GEO-CHAIN with a purpose to save our environment.
- ✓ Invite your teachers and friends to join it. Motivate them either to create their own organic garden or plant a tree. Let to take pledge to save environment. Share pictures of the actions taken by your group members to save the environment.
- ✓ Click pictures of your organic garden and take screenshot of the blog and paste them in you project scrap file.
- ✓ Also pen down your observation and experience in this file.
- ✓ Decorate your scrap file with recyclable materials.



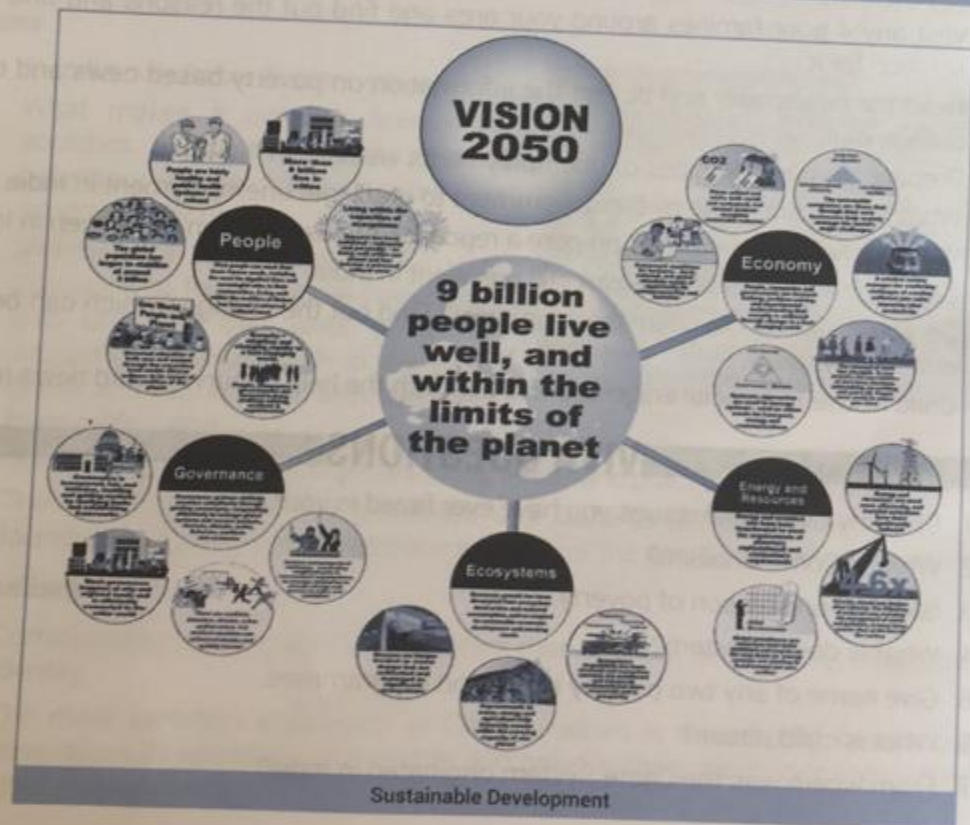
3 PROJECT

SUSTAINABLE DEVELOPMENT

Sustainable development means development should take place without damaging the environment, and development in the present should not compromise with the needs of the future generations.

Sustainability of development is comparatively a new area of knowledge in which scientists, economists, philosophers and other social scientists are working together.

Consequences of environmental degradation do not respect national or state boundaries.



Projects

1. Prepare a project on the steps to minimise environmental degradation.
2. Visit a nearby village and compare it with the city you live in for environmental degradation.
3. Make a project showing consumption and conservation of resources in your locality.
4. Prepare a project on how to conserve resources used in your school.
5. Suppose you live in an area where petroleum is not available, what would you suggest for the different types of vehicles you can use instead.
6. Is it true that consequences of environmental degradation do not respect national or state boundaries, this issue is no longer region or nation specific?
7. How can you contribute personally to save environmental degradation?

VIVA QUESTIONS

1. What does sustainable development mean?
2. What kinds of pollutions are caused by vehicles?
3. What is Noise Pollution?
4. 'Money cannot buy you all the comforts of life'

Environmental degradation is the deterioration of the environment through depletion of resources such as air, water and soil.
It leads to the destruction of ecosystems and the extinction of wild life.

Consequence of Environmental Degradation

1. Environmental degradation is now a global issue and it is being discussed and debated over decades.
2. Actually Environmental degradation does not restrict to the national or state boundaries, its consequences are felt in the surrounding states or neighbouring countries and sometimes even globally.



Land Degradation

- ◆ Acid rain, climate change, etc. are some transcontinental issues.
- ◆ Today environmental protection is a major issue which is taken seriously by almost all the countries.
- ◆ Land degradation affects the agricultural productivity of the land as well as food security.
- ◆ Addition of green house gases in the atmosphere is responsible for increase in temperature. It affects all the parts of the world.
- ◆ Addition of Chlorofluoro Carbons in atmosphere is responsible for ozone depletion.
- ◆ Pollution of water has affected the water supply almost everywhere in the world.
- ◆ Pollution of Air has increased respiratory diseases in people of all the ages.

Control of Environmental Degradation

1. By minimising the use of water.
2. Harvesting of rainwater to meet water requirements.
3. Reusing a recycling of water.
4. Treating hot water and effluents before releasing them in river or ponds.
5. Overdraining of groundwater needs to be checked by the government.
6. Fitting smoke stacks in the factories.
7. Instead of Coal, Oil or gas can be used.
8. Almost all machinery should be re-designed to increase energy efficiency and reduce noise.

Challenge of sustainable development requires Integration of economic development with environmental concerns.

1 PROJECT

CONSUMER AWARENESS

We participate in the market both as producers and consumers. As producers of goods and services we could be working in any of the sectors such as agriculture, industry or service. Consumers participate in the market when they purchase goods and services that they need.

We need to assess the students on the following topics:

- (i) Need of rules and regulations for the protection of the consumers in the market place.
- (ii) Ways of exploitation of consumers in the market.
- (iii) Markets do not work in a fair manner when producers are few and powerful whereas consumers purchase in small amounts and are scattered.
- (iv) Why Consumer Movements started in India.
- (v) Origin of Consumer Movement in India.
- (vi) COPRA (Consumers Protection Act) 1986.
- (vii) Right to Safety.
- (viii) Right to be Informed.
- (ix) Right to Information.
- (x) Right to Choose.
- (xi) Right to seek redressal.
- (xii) Spread to Consumer Awareness.
- (xiii) Organisation that monitors and issues quality certificates to producers of various goods.
- (xiv) Consumers redressal process is becoming complex.



Need of Rules and Regulations

- (i) Consumers find them in weaker position.
- (ii) Seller shift responsibility of complaint on the buyers.
- (iii) Sellers or producers are dominating.

2

PROJECT

SOCIAL ISSUES

- ➔ Illiteracy
- ➔ Poverty
- ➔ Unemployment and Population Growth
- ➔ Child Abuse, Child Labour
- ➔ Violence against women
- ➔ Casteism, Communalism, Regionalism
- ➔ Gender division

Illiteracy

- ◆ It is the inability to read or write.
- ◆ Most frequent causes of illiteracy in adults are having parents with little or no schooling.
- ◆ It can be a learning disability.
- ◆ Poverty is also one of the reasons.
- ◆ Lack of schools in Rural areas.
- ◆ Drops outs from the school.

Consequences of Illiteracy

- ◆ Unable to find suitable jobs.
- ◆ Lower Income
- ◆ Lower quality jobs
- ◆ Low standard of living
- ◆ Low Self Esteem
- ◆ Ignorance in health matter of the family
- ◆ Higher the Illiteracy rate, slower the economic growth of a country.

Poverty

Poverty is the state of being extremely poor. Poverty means hunger and lack of shelter.

- ◆ A situation in which parents are unable to afford to send their children to school.



Illiteracy



Poverty

Projects

Any one of the following projects can be assigned to the students:

Note: (Project should be handwritten)

1. Prepare a project report on the need of rules and regulations required in a market place.
2. In your day to day life, quote example how you were exploited as a consumer in the market place.
3. Prepare a project report on the origin of Consumer Movement in India with the help of suitable examples and pictures.
4. How as a consumer you can express your solidarity, prepare a project report with the help of suitable example and illustration.
5. Describe all the rights of a consumer with suitable examples and illustration.
6. Prepare suitable catchy slogans for the spread of consumer awareness in the country.
7. Collect the ads of Jago Grahak Jago and mention how you have abide by the Advertisement in your life.
8. Interview 4-5 persons in your neighbourhood and collect varied experiences regarding how they have been victims of consumer exploitation and their response.
9. Conduct a survey in your colony by preparing a suitable questioner of about 20 questions, to get an idea as to how alert they are as consumers.
10. Collect any consumer court cases given in the newspapers and write the impact of those cases on the unaware consumers.
11. Prepare a street play on enriching the common people on Consumer Awareness.

VIVA QUESTIONS

1. What is COPRA?
2. Who are consumers?
3. Name two certification marks of International standardisation.
4. Give an example to prove how big companies can manipulate market with wealth and power.
5. What is MRP?
6. What information is needed on packaged food?
7. What are consumer forums?
8. What should you know while buying medicines?

- (ii) Three-tier quasi judicial courts.
 - (a) District Court – Claims upto ₹ 20 lakh .
 - (b) State level Court – Between ₹ 20 lakh and 1 crore.
 - (c) National level Court – Exceeding ₹ 1 crore.

Logos of Standardisation

- (i) ISI—This mark is used for electronic goods.
- (ii) AGMARK—It is used for edible products.
- (iii) Hallmark— used for jewellery.
- (iv) These logos and ratification help consumers get assured of quality while purchasing the goods and service.



- (v) Though these organisations develop quality standards for many products. It is not compulsory for all producers to follow standards.
- (vi) But for certain products that affect health and safety of consumers, it is mandatory on the part of producers to get certified by these organisations.

National Consumer Day

- (i) 24th December is celebrated as National Consumer Day in India every year.
- (ii) It was on this day, Consumer Protection Act 1986 was enacted.



Problems faced by this New System of Consumer Courts

- (i) Consumer redressal process is becoming cumbersome, expensive and time consuming.
- (ii) Many a times consumer had to engage lawyers.
- (iii) There cases require time for filing and attending the court proceeding.
- (iv) In most cases, cash memos are not issued therefore no evidence of purchase.
- (v) Existing laws are not very clear on the issue of compensation to consumers.
- (vi) Enforcement of laws protecting workers is weak.

1. Right to Safety

- (i) Consumers have the right to buy goods and services which are not hazardous to life and property.
- (ii) Producers need to strictly follow the required safety rules and regulations.
- (iii) A defective goods can cause serious accident.
- (iv) We find bad quality products in the market because supervision of these rules is weak.

2. Right to be Informed

- (i) Need of details on the packing.
- (ii) Ingredients used, price, batch no., date of manufacture, expiry date and address of manufactures are needed.
- (iii) On medicines directs to use, side effects and risks associated with usage should be written.
- (iv) On Garments, washing instructions.
- (v) Consumers have the right to be informed.
- (vi) If information is not correctly given, they can complain and ask for replacement.
- (vii) More than the MRP mentioned should not be demanded.

RTI

- (i) Recently the Right to Information has been expanded to cover various services provided by the government.
- (ii) In Oct 2005, the Government of India enacted a law popularly known as RTI or Right to Information Act.

3. Right to Choose

- (i) Any consumer who receives a service in whatever capacity, has the right to choose.
- (ii) Nobody can force a consumer to buy anything which he does not want to.

4. Right to Seek Redressal

- (i) It's a right of a consumer to seek redressal against unfair practices and exploitation.
- (ii) If any damage is proven, consumer has the right to get compensation.

Consumer Forum

- (i) They are also called Consumer Protection Councils.
- (ii) They guide consumers on how to file cases in the consumer courts.
- (ii) They receive financial support from the government for creating awareness.

5. Right to Represent

- (i) The Act has enabled us as consumers to have the right to represent in the consumer courts.

Exploitation in the Market Place:

- (i) Traders indulge in unfair trade practices.
- (ii) Weigh less.
- (iii) Charge more than MRP.
- (iv) Sell adulterated or defective goods.

Market does not work in Fair Manner:

- (i) Rich or big companies manipulate the market in various ways.
- (ii) False information is passed through media.
- (iii) Attract Consumers by using celebrities.

Why did Consumer Movement Start in India?

- (i) No legal system available to protect consumers.
- (ii) Consumers initially avoided the products they didn't want or like.
- (iii) Responsibility of the consumer to be careful while buying a commodity or service.
- (iv) It took many years in India to create Consumer Awareness.
- (v) It has shifted the responsibility of ensuring quality of goods and services on the sellers.



Origin of Consumer Movement in India

- (i) It originated with the need to protect and promote the interest of consumers against unethical and unfair trade practices.
- (ii) Rampant food shortage, hoarding, black marketing, adulteration of food and edible oil gave birth to consumer movement in the 1960's.
- (iii) Till 1970's articles were written and exhibitions were held for Consumer Awareness.
- (iv) Consumer groups were formed to look into malpractices in ration shop and overcrowding in road passenger transport.
- (v) More groups came up.

COPRA

An Act was passed in 1986 by the Indian Government called Consumer Protection Act 1986, popularly known as COPRA.

Following Consumer Rights are covered under COPRA:



Topic-2 : Sustainable Development

Sub-Topic : Conservation of Environment

Environment means surrounding in which we are living. Environment includes all those things on which we are directly or indirectly dependent for our survival, whether it is living component like animals, plants or non living component like soil, air and water. Thus it is very important to save the environment. **Save the environment and you will save the life and future. Let's go green to get the globe clean.**

General Instructions :

- The project needs to be neatly done on A4 Size sheet.
- It should be handwritten.
- Use a neatly labeled handmade file for the project.
- Cover page of the file should beautifully illustrate the theme "**Conservation of Environment**" with the help of pictures and awareness messages.

TASK :

(i) **Interview any two elderly persons (Grand-Parents) to find out about the old time practices which were considered of great significance to conserve or save the environment through the given questionnaire.**

1. Name of the elderly person :
2. Relation :
3. Ask about the different practices. Also try to find out the scientific reasons behind them. Note their answers in your rough notebook.
 - (a) How were they keeping water cool during summer season ?
 - (b) Why were the plants worshiped by them ?
 - (c) What type of bags did they use to carry things and why ?
 - (d) How did they filter drinking water ?
 - (e) What type of vehicle did they use to move from one area to another ?
 - (f) What according to them is the major threat to our present day environment ?
 - (g) Write your findings from the interview on an A4 size sheet.

(ii) **Read any two stories based on environment conservation like Chipko Movement. Identify the moral value that it brings forth. Answer the following questions.**

- (a) Mention how the value taught is relevant to the present times.
 - (b) Mention how you can imbibe the value in your life through an example.
- Submit your home-work in a newspaper bag made by you.

CHALLENGE : Plant one tree in your locality and adopt it. Take care of it on a regular basis.

3. Prepare a story related to Chipko Movement. A movement started to conserve our forest resources.

—Develop a comes strip related to Chipko Movement.

4. Make a powerpoint presentation with 10 to 15 slides.

Topic : Water scarcity in urban areas

S.No.	Questions	Yes	No
7.	Have you ever felt cheated by the sellers ?		
8.	Are you aware of any organisation which protects you from exploitation ?		
9.	Can you name few of them (organisations) ?		
10.	Why should we have consumer rights ?		
11.	What is RTI ?		
12.	Have you ever filed RTI ?		
13.	How helpful a government is in case of exploitation ?		
14.	Can you suggest some ways to protect the consumer's from exploitation ?		

2. Design a colourful Brochure on the following topic on A4 size sheet.

Topic : Health, Hygiene and Sanitation

Brochure should cover the following aspects :

- Role of hygiene and sanitation in our life.
- What as a student you can do for the hygiene and sanitation of your school and neighbourhood.

3. Design a Poster

Topic : "Women Safety"

- Design a poster on the given topic on an A3 size sheet.
- Illustration should highlight the importance of women safety.
- Write a catchy slogan for the same on the poster.

4. "Educated human beings are an asset for a country".

Topic : Illiteracy—A big bane for our society.

- Prepare a photostory on the topic given above.

NOTE : Your photostory must contain 15 slides.

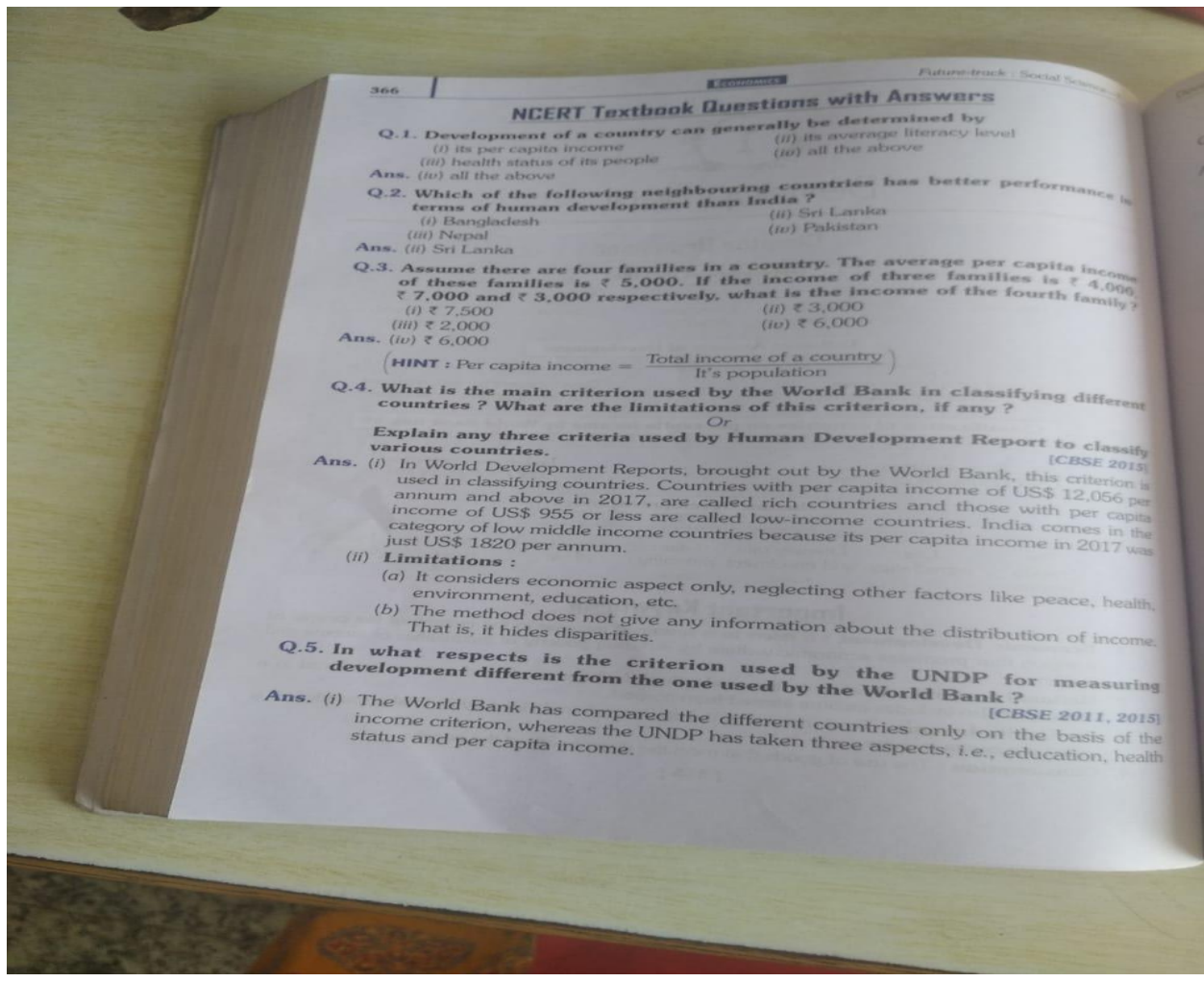
5. Story Writing—A pictorial presentation.

Topic : "Regionalism and language conflicts"

Create a story in the topic given above on A4 size sheet. Word limit 200-250 words.

- Story should explain the impact of regionalism and language conflicts on our day to day life.
- Cover the aspect thoroughly with the help of your elders and their life experiences.
- Suggest some solutions to overcome this problem.
- You may enact this story in the form of a role play in your class, with the help of your teacher.

21st MARCH 2020- Complete the question and answers in copy.



(ii) The base of the World Bank comparison is very narrow, i.e., only economic, whereas, UNDP has taken a broader view.

Q.6. Why do we use averages? Are there any limitations to their use? Illustrate with your own examples related to development.

Ans. (i) Average is a single value which summarises the characteristics of mass of data. Since countries have different populations, total income does not tell us what an average person is likely to earn. This is known by average income. That is why, we use average or average income for measuring development.

(ii) Yes, there are following limitations to their use :

(a) An average is influenced by extreme values.

(b) An average may not give an idea about the formation of the series.

In other words, average income does not tell us how this income is distributed among people. For example, let us consider educational achievement of rural population of Uttar Pradesh.

Category	Male	Female
Literacy rate for rural population	76%	54%
Literacy rate for children in age group 10-14 years.	90%	87%
Percentage of rural children aged 10-14 attending school	85%	82%

This table shows that only 54% of rural females in Uttar Pradesh are literate while the national average of literacy rate of India is 74% for 2011.

Q.7. Kerala, with lower per capita income, has a better human development ranking than Punjab. Hence, per capita income is not a useful criterion at all and should not be used to compare states. Do you agree? Discuss.

Ans. No, I do not agree with the statement that per capita income is not a useful criterion at all.

We can arrive at the following conclusions from the above fact :

- (i) The relationship between human development ranking and the per capita income does not show any correspondence.
- (ii) Money cannot buy all the goods and services that we may need to live well. For example, money cannot buy a pollution free environment.
- (iii) Income by itself is not a completely adequate indicator of material goods and services that citizens are able to use.

Q.8. Find out the present sources of energy that are used by the people in India. What could be the other possibilities fifty years from now?

Ans. (i) The present sources of energy used by the people in India are as under :

(a) Conventional sources of energy :

1. Coal, 2. Petroleum, 3. Natural gas, 4. Electricity

(b) Non-conventional sources of energy :

1. Solar energy, 2. Wind energy, 3. Biogas, 4. Geothermal energy,
 5. Wave energy, 6. Tidal energy, 7. Nuclear energy
- (ii) The possibilities that fifty years from now could be that India would have depended on electricity and non-conventional sources of energy. This is because, the world stock of crude oil would last only 43 years more if people continue to extract it at the present rate.

Q.9. Why is the issue of sustainability important for development ? [CBSE 2015]

- Ans.** (i) It cares for the needs of the future generations.
 (ii) It promotes a rational use of natural resources.
 (iii) It lays emphasis on quality life.
 (iv) The Earth has enough non-renewable resources to meet our present and future needs for development, if we use them in an economic manner. But, if we use them recklessly in the greed of rapid economic development, our world may become a vast wasteland.

Q.10. "The Earth has enough resources to meet the needs of all but not enough to satisfy the greed of even one person". How is this statement relevant to the discussion of development ? Discuss.

- Ans.** (i) Sustainability is the capacity to use the resources judiciously and maintain their balance. Every generation wants to get the greatest benefits from the available resources but such a thing would be quite disastrous because the available resources would be exhausted within a short time.
 As a result, especially our coming generations would be deprived of such resources.
 (ii) We should use our resources more judiciously so that a certain part of them is left for our coming generations to use it in future. We should protect our animal wealth, both animals and birds from human exploitation, otherwise some species will be lost forever.
 (iii) Certain resources like water, wind, energy and solar energy are inexhaustible but we must see that they are not put to wrong use. There is no harm in using the land for cultivation but we should see that its fertility is maintained, otherwise, sooner or later it will turn into a wasteland.
 (iv) It protects environment.

Q.11. List a few examples of environmental degradation that you may have observed around you.

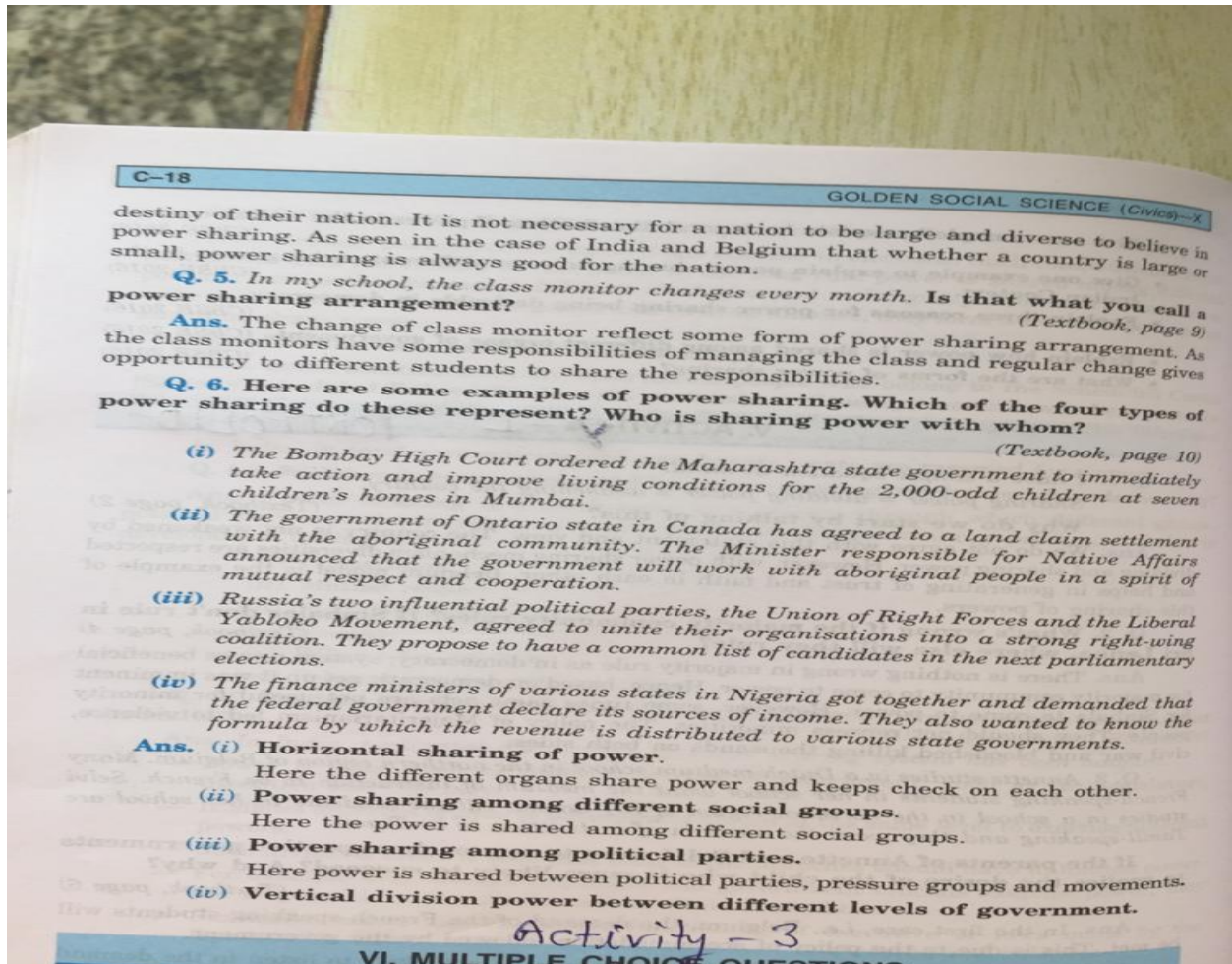
Or

"Consequences of environmental degradation do not respect national or state boundaries". Justify the statement.

- Ans.** (i) **Land degradation :** There is a serious problem of land degradation and soil erosion around me. Nearly 53% of the total land area in India is suffering from serious degradation. The annual soil loss from erosion is tremendous that has disastrous consequences. [CBSE 2012, 2015]

22nd MARCH 2020

Complete the following activities in A4 sheets for Subject Enrichment.

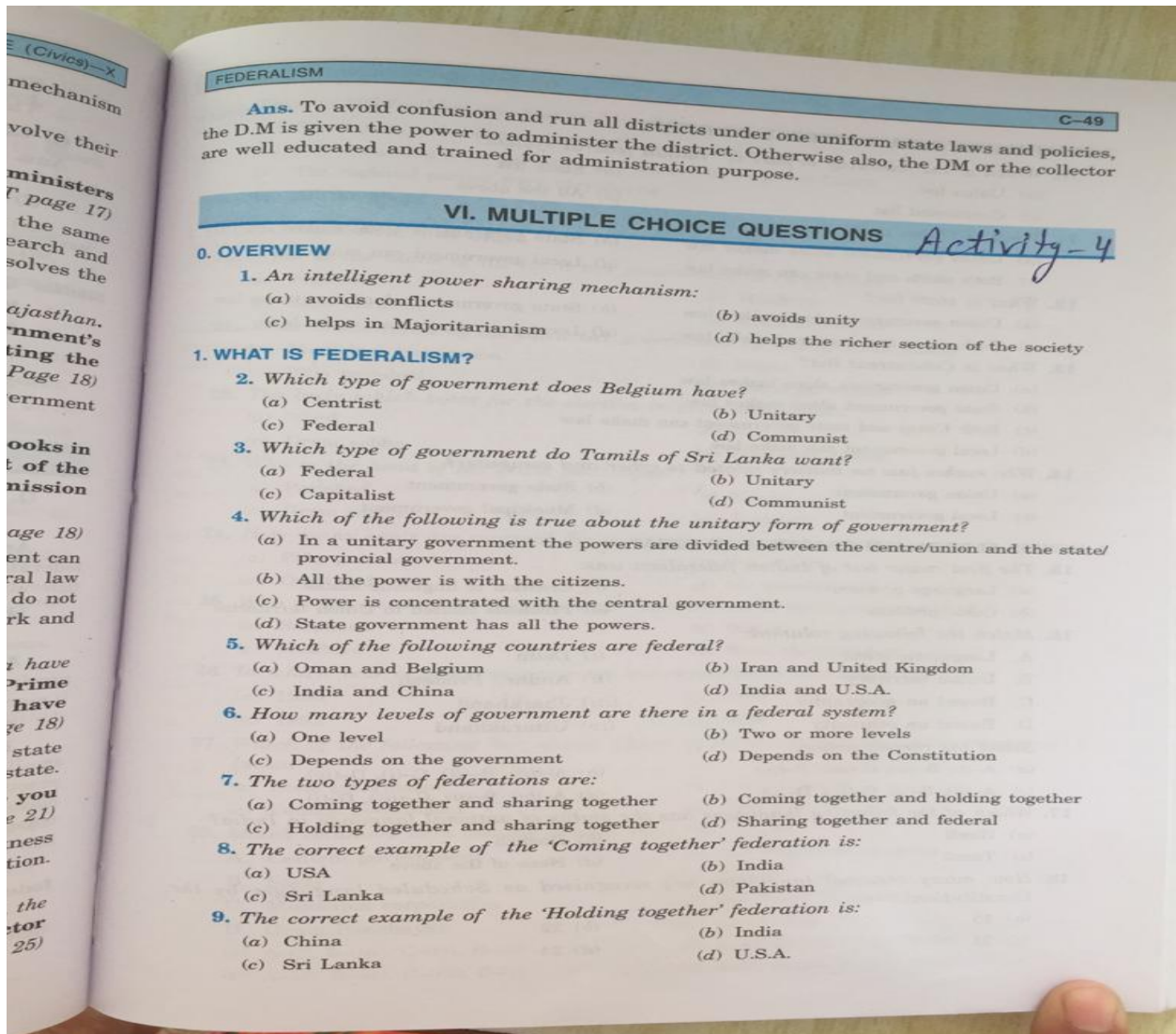


Activity-3

1. BELGIUM AND SRI LANKA

1. In which continent is Belgium located ?
 - (a) Asia
 - (b) Europe
 - (c) Africa
 - (d) Eurasia
2. Name the linguistic group that is dominant in Belgium?
 - (a) French
 - (b) Dutch
 - (c) British
 - (d) German
3. Which language is more important than German but less than Dutch in Belgium?
 - (a) French
 - (b) Dutch
 - (c) British
 - (d) German
4. Which one of the following communities constituted majority in Brussels?
 - (a) German speaking
 - (b) Dutch speaking
 - (c) English speaking
 - (d) French speaking
5. Which two main languages are spoken in Belgium?
 - (a) German and French
 - (b) Dutch and French
 - (c) English and Dutch
 - (d) French and Danish
6. Which one of the following ethnic group is related to Belgium?
 - (a) English, German and French
 - (b) Dutch, French and German
 - (c) English and Dutch
 - (d) French, German and Spanish
7. Which linguistic group is dominant in the Flemish region of Belgium?
 - (a) German
 - (b) French
 - (c) Dutch
 - (d) French, German and French
8. Name the most vibrant minority social group in Sri Lanka.
 - (a) Sinhala
 - (b) Tamils
 - (c) Buddhist
 - (d) Christians
9. What is the percentage of Tamil natives of Sri Lanka?
 - (a) 25 percent
 - (b) 18 percent
 - (c) 13 percent
 - (d) 33 percent
10. What is the %age of Sinhala speaking in Sri Lanka?
 - (a) 58
 - (b) 74
 - (c) 65
 - (d) 82
11. Which of the following are the ethnic communities of Sri Lanka?
 - (a) Indian Tamils and Sri Lankan Tamils

23th MARCH 2020 - Complete the following activity.



24th MARCH 2020

Learn the Question Answers of L-1 Power Sharing

26th MARCH 2020

Draw the following flow chart

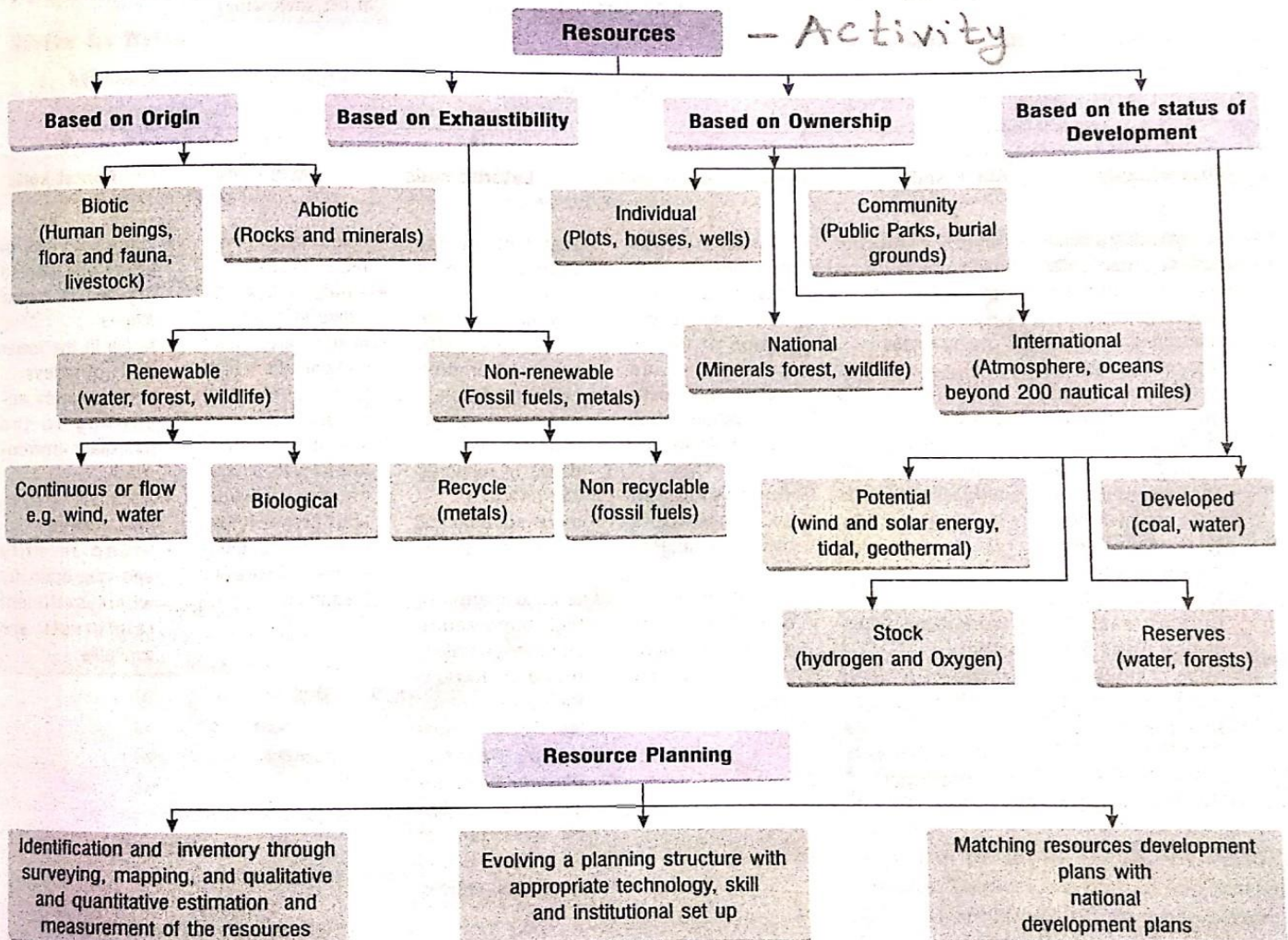
Geography

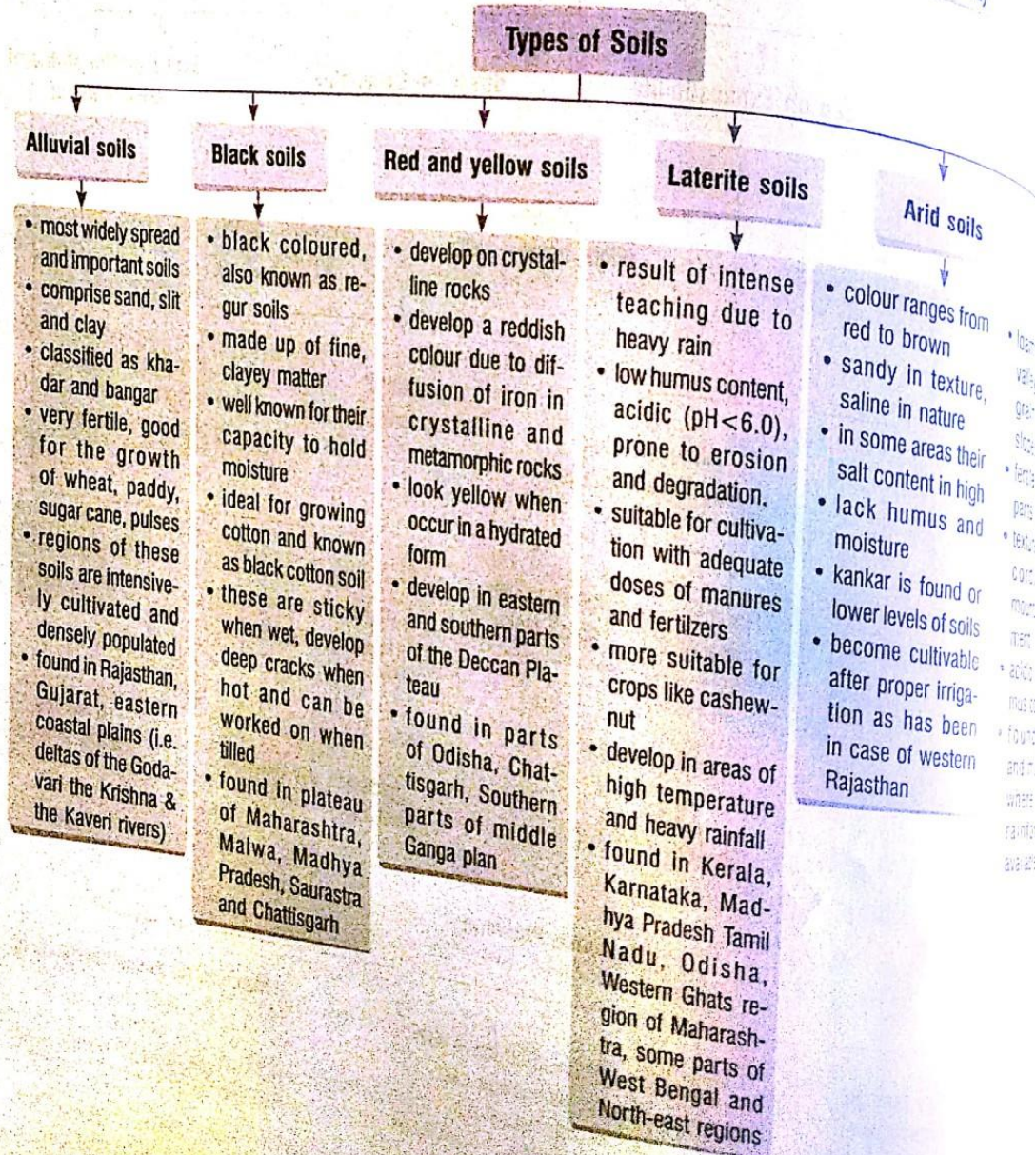
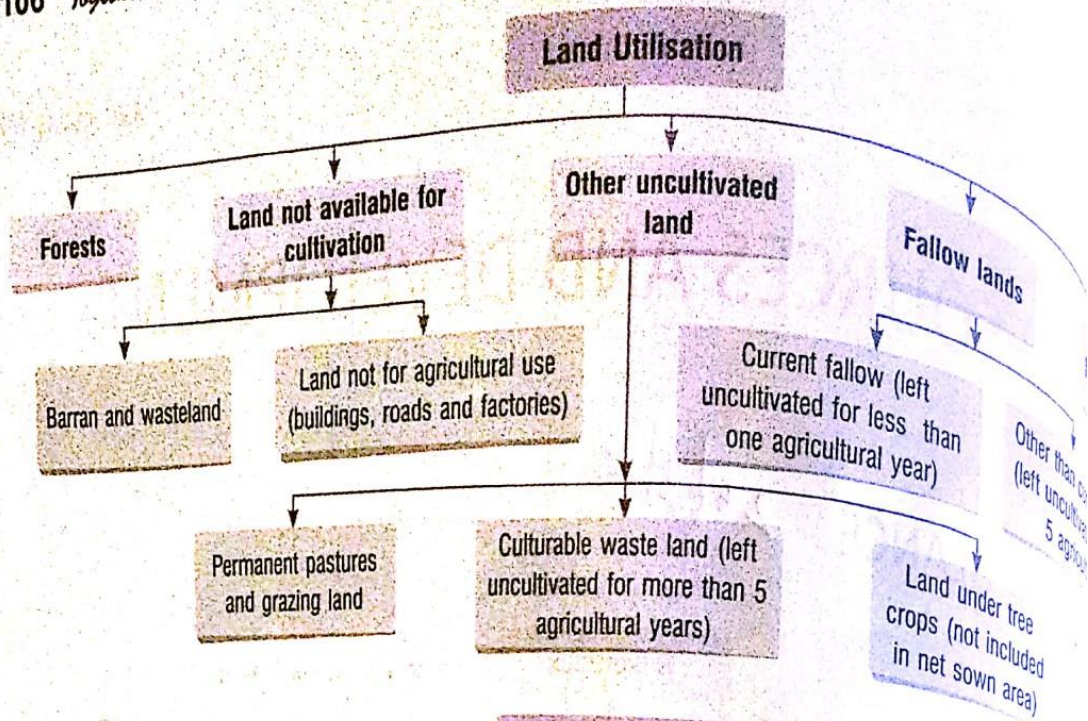
1

RESOURCES AND DEVELOPMENT

FLOW CHART

26/3/20





NCERT EXERCISES

Write in Brief

1. Multiple choice questions.

(i) Which of the following types of resources is iron ore?

- (a) renewable (b) biotic
(c) flow (d) non-renewable

Ans. (d)

(ii) Under which of the following types of resources can tidal energy be put?

- (a) replenishable (b) human-made
(c) abiotic (d) non-recyclable

Ans. (a)

(iii) Which of the following is the main cause of land degradation in Punjab?

- (a) Intensive cultivation
(b) deforestation
(c) overirrigation
(d) overgrazing

Ans. (c)

(iv) In which of the following states is terrace cultivation practised?

- (a) Punjab
(b) plains of Uttar Pradesh
(c) Haryana
(d) Uttarakhand

Ans. (d)

(v) In which of the following states is black soil found?

- (a) Jammu and Kashmir
(b) Gujarat
(c) Rajasthan
(d) Jharkhand

Ans. (b)

2. Answer the following questions in about 30 words.

(i) Name three states having black soil and the crop which is mainly grown in it.

Ans. The black soil, also called the regur soil, is found in the plateaus of Maharashtra, Madhya Pradesh and Chhattisgarh. It is the best soil for growing cotton.

(ii) What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.

Ans. Alluvial soil is found in the deltas of rivers Mahanadi, Godavari, Krishna and Kaveri, on the eastern coastal plains. The main features of the alluvial soil are as follows.

- (a) It contains different proportion of sand, silt and clay. It is very fertile.
(b) It contains right proportion of potash, lime and phosphoric acid.
(c) In drier regions, it is alkaline and requires proper treatment and irrigation.
(d) It is ideal for growing sugar cane, wheat and paddy.

(iii) What steps can be taken to control soil erosion in the hilly areas?

Ans. To control soil erosion in the hilly areas, the following steps can be taken.

- (a) Contour ploughing to reduce the flow of the water down the slopes and checks sheet erosion.
(b) Steps can be cut on the slopes, making terraces. Terraces can restrict soil erosion.
(c) Strips of crops are left to grow between the crops. It breaks up the force of wind.
(d) Planting trees in a row, called shelter belts, also reduces the force of the wind.

(iv) What are the biotic and abiotic resources?
Give some examples.

Ans. Biotic: All living resources such as flora, fauna, livestock and fisheries, that we get from the biosphere are called biotic resources.

Abiotic: All non-living things, like minerals, metals and rocks, are called abiotic resources.

3. Answer the following questions in about 120 words.

(i) Explain land use pattern in India. Why has the land under forest not increased much since 1960-61?

Ans. Land resource in India is primarily divided into:

- (a) Agriculture land
- (b) Forest Land: Area under trees grown naturally
- (c) Pastures and grazing grounds
- (d) Waste land: Rocky, arid and desert areas, and other non-agricultural use like housing, roads and industry.

According to the data of the year 2008-09 of Ministry of Agriculture, 22.78% is covered by forests, 8.61% is barren land, 5.57% area under non-agricultural uses, 46.24% is net sown area and 3.38% is used for grazing. The rest is wasteland with traces of miscellaneous cultivation.

The land under forest has not increased much since 1960-61 because of the following reasons.

- (a) Indiscriminate cutting and felling of trees to make way for agriculture, to feed our teeming population.
- (b) Intensive urbanisation and industrialisation.
- (c) Large-scale multi-purpose projects have submerged forests and trees.

(ii) How have technical and economic development led to more consumption of resources?

Ans. Technical and economic development have led to more consumption of resources in the following ways:

- (a) Technological development and industrialisation need more resources for goods to be produced quickly and easily. Today we can see an array of goods made with the latest technology.
- (b) With the development of technology, goods become obsolete very fast. Latest goods need more resources.
- (c) Economic development has led to urbanisation and industrialisation, which need more resources.
- (d) Green Revolution was possible with the development of...

the needs of the future generation.

Short Answer Type Questions [3 Marks]

37/ What is development? Mention two aspects of development.

Ans. Development is a positive growth or change in economical, social and political aspects of a country.

Two aspects of development are:

- (a) Economic development or rise in income of the people
- (b) Social development which includes education, health and public services

38/ What is meant by economic development? Write two basis of measuring economic development of a country.

Ans. Economic development is a sustained increase in real per capita income that promotes economic welfare by reducing poverty, unemployment and inequalities in distribution of income.

The two basis of measuring economic development are:

- (a) Quality of life and environmental sustainability
- (b) Per capita income.

39/ 'Development for one may be the destruction for other.' Do you agree with the statement? Justify your answer. [CBSE 2012]

Ans. I certainly agree with the statement that development for one may be the destruction for other. People have different developmental goals. They seek what is

most important for them and fulfill their aspirations and desires. For example, the establishment of a dam leads to infrastructural development, generation of electricity, etc., but at the same time, it may lead to the large-scale displacement of people, loss of livelihood, shelter, etc. of the people living near the proposed dam site. Hence, construction of dam may be development for some, but may be destruction for others.

40. Mention any three characteristics of development.

Ans. The following are the three major characteristics of development.

- (a) Different people can have different developmental goals.
- (b) What may be development for one may not be development for the other. It may be destructive for the other.
- (c) People tend to look at a mix of goals for their development.

30TH MARCH 2020

(a) noise pollution
(b) For each of the items given in Table 1.6, find out which country is at the top and which is at the bottom.

Activity -

Table 1.6: Some Data Regarding India and its Neighbours for 2015

Country	Gross National Income (GNI) Per Capita (2011 PPP \$)	Life Expectancy at birth (2015)	Mean Years of Schooling of People aged 25 and above (2015)	HDI Rank in the world (2016)
Sri Lanka	10,789	75	10.9	73
India	5,663	68.3	6.3	131
Myanmar	4,943	66.1	4.7	145
Pakistan	5,031	66.4	5.1	147
Nepal	2,377	70	4.1	145
Bangladesh	3,341	72	5.2	139

Ans. After observing the given table carefully we conclude the following.

(a) In terms of Gross National income in USD
Country at the top : Sri Lanka (10,789)
Country at the bottom : Nepal (2,377)

(b) In terms of Life Expectancy at birth
Country at the top : Sri Lanka (75)
Country at the bottom : Myanmar (66.1)

(c) In terms of Mean Years of Schooling of People aged 25 and above

Country at the top : Sri Lanka (10.9)

Country at the bottom : Nepal (4.1)

(d) In terms of HDI Rank in the world (2016)

Country at the top : Sri Lanka (73)

Country at the bottom : Pakistan (147)

| **31ST MARCH 2020**

Learn Question answers of L-1 of Economics