EAST POINT SCHOOL
CLASS-VIII
WORK PLAN-SEPTEMBER-WEEK-1

ENGLISH

REVISION PLAN

Future Tense

Video Link: https://youtu.be/gay3fXELtvE

DEFINITION- The future tense is a verb tense used for a future activity or a future state of being. For example:

- **I will jump in the lake.**
  (This is a future activity.)

- **I will be happy.**
  (This is a future state of being.)

The tense of a verb is determined by when the action took place. The three main tenses are:

- **The Past Tense**
- **The Present Tense**
- **The Future Tense**

The 4 Future Tenses	Examples	Uses	Structure
SIMPLE FUTURE TENSE	• I will go. • We will celebrate our anniversary by flying to New York.	The simple future tense is used for an action that will occur in the future.	Subject + shall/will + V1 +object
FUTURE CONTINUOUS TENSE	• I will be going. • The Moscow State Circus will be performing in Cheltenham	The future progressive tense is used for an ongoing action that will occur in the future.	Subject + shall/will+be + V1+ing +object

	for the next 3 weeks.		
FUTURE PERFECT TENSE	• **I will have gone.** • **By the time you arrive, we will have finished the meal and the speeches.**	**The future perfect tense is used to describe an action that will have been completed at some point in the future.**	**Subject + shall/will +have + V3 +object**
FUTURE PERFECT CONTINUOUS	• **I will have been going.** • **In July next year, you will have been studying for three years.**	**The future perfect progressive tense is used for an ongoing action that will be completed at some specified time in the future.**	**Subject + shall/will +have+ been + V1+ing +object+since/for**

EXERCISE-1

Q1 Fill in the blanks with Simple Future Tense.

1) The house is dirty. I (clean) _____ _____ it on Monday.

2) (cook) _____ you _____ on Tuesday, please?

3) It looks like the washer is broken. I (ask) _____ _____ a repair man to come Wednesday.

4) Okay then, our group (meet) _____ _____ on Thursday.

6) If necessary, we (carry) _____ _____ the supplies in our car Saturday.

EXERCISE-2

Q2 Make the future tenses. It could be a positive sentence, a negative sentence or a question.

1. future simple (She / win the competition?)

_____

2. future continuous (She / wait when we arrive)

_____

3. future perfect (By next week I / finish this work)

_____

4. future perfect continuous (I / live here for one year next week)

_____

5. future simple (Who / pass the exam?)

_____

6. future perfect continuous (She / study so she will be tired)

_____

7. future continuous (How / you / get home?)

_____

8. future simple (I / come later)

_____

9. future perfect (She / catch the train by 3pm)

_____

10. future simple (It / rain tomorrow)

PHRASE/CLAUSE

In the following sentences, state whether the underlined part is a phrase or a clause.

1. In spite of the heavy rains, we reached on time.

2. She passed her test because of her teacher.

3. She failed her exams because she had a bad teacher.

4. Though she performed well in the interview, she didn't get the job.

5. In spite of his good grades, he couldn't secure admission in a good college.

6. Driven by the storm, we took shelter under a bridge.

7. Having delivered the message, **he departed.**

8. **Not knowing what to do,** she stood there motionless.

9. Now that he is married, *he has become more responsible.*

10. Despite her protests, they took the child away.

ACTIVE / PASSIVE VOICE

Rewrite the following changing the active sentences to passive and passive sentences to active.

1. The thieves have been arrested by the police.

2. The marvelous performance delivered by the children enthralled us.

3. He has been invited to their party.

4. We have shipped your order.

5. The girl recited the poem beautifully.

6. The guests enjoyed the party.

7. The child impressed everyone with his polite manners.

8. A girl from Chennai won the first prize.

9. The readers like the latest book of the writer.

10. They are painting the walls.

11. The car has been fixed by the mechanic.

12. She accepted their invitation with pleasure.

HINDI

पुनरावृत्ति अभ्यास पत्रिका

भगवान के डाकिए

लेखक – रामधारी सिंह दिनकर

जन्म – 13 सितम्बर 1908

मृत्यु – 24 अप्रैल 1974

स्थान – सिमरिया घाट बेगूसराय जिला, बिहार, भारत

भगवान के डाकिए कविता प्रवेश

इस कविता के द्वारा कवि कहते हैं कि भगवान बादलो के द्वारा पेड़ – पौधों, पहाड़ो के लिए सन्देश भेजते हैं। बादलो द्वारा बरसाया जल उनके लिए सुखद सन्देश लाता है। कवि पूरे विश्व को एक मानते हैं क्योंकि प्रकृति ने दो देशो में फर्क नहीं समझा। वे कहते हैं एक देश से दूसरे देश को जाती सुगंध को कोई बाँध नहीं सकता है। इस कविता की भाषा तत्सम, तदभव शब्दों से युक्त सरल भाषा है।

भगवान बादलों के द्वारा पेड़-पौधों, पहाड़ों के लिए सन्देश भेजते हैं। हमारे जो प्रकृति है वो किसी तरह से भेदभाव नहीं करती एक देश से दूसरे देश बादल अपने पानी लेकर जाते हैं और न जाने कहाँ पर जाकर बरसाते हैं इसी तरह से पेड़-पौधों की सुंगध, हवा, और पहाड़ों के सन्देश एक दूसरे तक पहुँचते हैं। जब एक देश के बाद दूसरे पर बादल जाकर बरसते हैं तो इससे यही साबित होता है कि वो वहाँ का सन्देश लेकर आऐ हैं। वास्तम में पूरी दुनिया ही एक है ईश्वर ने उसे बनाया है। हमें उसमें भेदभाव नहीं करना चाहिए क्योंकि प्रकृति ने दो देशों में फर्क नहीं किया है उन्होंने कोई फ्रक नहीं समझा है फिर हम इंसान क्यों ऐसा करते हैं, हमें ऐसा नहीं करना चाहिए। हमें किसी तरह के भेदभाव अपने दिलो-दिमाग में नहीं रखना चाहिए। मानवता और प्रेम की भावना को बढ़ावा देना चाहिए। यह सुन्दर कविता इसी भाव को लेकर लिखी गई है।

भगवान के डाकिए कविता सार

इस कविता में "दिनकर" जी बताते है की पक्षी और बादल भगवान के डाकिए हैं जो एक विशाल देश का सन्देश लेकर दूसरे विशाल देश को जाते हैं। उनके लाये पत्र हम नहीं समझ पाते मगर पेड़-पौधे, जल और पहाड़ पढ़ लेते हैं। यहाँ कवि ने बादलों को हवा में और पक्षियों को पंखो पर तैरते दिखाया है। वे कहते है की एक देश की सुगन्धित हवा दूसरे देश पक्षियों के पंखों द्वारा पहुँचती है। इसी प्रकार बादलों के द्वारा एक देश का भाप दूसरे देश में वर्षा बनकर गिरता है।

प्र°1 कवि ने पक्षी और बादल को भगवान के डाकिए क्यों बताया है? स्पष्ट कीजिए।
प्र°2 पक्षी और बादल द्वारा लाई गई चिट्ठियों को कौन-कौन पढ़ पाते हैं? सोचकर लिखिए।

प्र°3 इन पंक्तियों का क्या भाव है-
क. पक्षी और बादल प्रेम, सद्भाव और एकता का संदेश एक देश से दूसरे देश को भेजते हैं।
ख. प्रकृति देश-देश में भेदभाव नहीं करती। एक देश से उठा बादल दूसरे देश में बरस जाता है।

प्र°4 पक्षी और बादल की चिट्ठियों में पेड़े-पौधे, पानी और पहाड़ क्या पढ़ पाते हैं?

प्र°5 "एक देश की धरती दूसरे देश को सुगंध भेजती है"- कथन का भाव स्पष्ट कीजिए।

क्या निराश हुआ जाए

लेखक हजारी प्रसाद द्विवेदी
जन्म 19 अगस्त 1907
मृत्यु 19 मई 1979

क्या निराश हुआ जाए पाठ प्रवेश

हजारी प्रसाद द्विवेदी द्वारा लिखित 'क्या निराश हुआ जाए' एक श्रेष्ठ निबंध है। इस पाठ के द्वारा लेखक देश में उपजी सामाजिक बुराइयों के साथ-साथ अच्छाइयों को भी उजागर करने के लिए कहते है। वे कहते है समाचार पत्रों को पढ़कर लगता है सच्चाई और ईमानदारी ख़त्म हो गई है। आज आदमी गुणी कम और दोषी अधिक दिख रहा है। आज लोगो की सच्चाई से आस्था डिगने लगी है। लेखक कहते है कि लोभ, मोह, काम-क्रोध आदि को शक्तिमान कर हार नहीं माननी चाहिए बल्कि उनका डट कर सामना करना चाहिए। आगे वे कहते है कि हमें किसी के हाथ की कठ पुतली नहीं बनना चाहिए। कानून और धर्म अलग-अलग हैं। परन्तु कुछ लोग कानून को धर्म से बड़ा मानते हैं।
समाज में कुछ लोग ऐसे हैं जो बुराई को रस लेकर बताते हैं। बुराई में रस लेना बुरी बात है। लेखक के अनुसार सच्चाई आज भी दुनिया में है इसके कई उदहारण उन्होंने पाठ में दिया है।

क्या निराश हुआ जाए पाठ सार

लेखक आज के समय में फैले हुए डकैती ,चोरी, तस्करी और भ्रष्टाचार से बहुत दुखी है। आजकल का समाचार पत्र आदमी को आदमी पर विश्वास करने से रोकता है। लेखक के अनुसार जिस स्वतंत्र भारत का स्वप्न गांधी, तिलक, टैगोर ने देखा था यह भारत अब उनके स्वप्नों का भारत नहीं रहा। आज के समय में ईमानदारी से

कमाने वाले भूखे रह रहे हैं और धोखा धड़ी करने वाले राज कर रहे हैं। लेखक के अनुसार भारतीय हमेशा ही संतोषी प्रवृति के रहें हैं। वे कहते हैं आम आदमी की मौलिक आवश्यकताओं को पूरा करने के लिए कानून बनाए गए हैं किन्तु आज लोग ईमानदार नहीं रहे। भारत में कानून को धर्म माना गया है, किन्तु आज भी कानून से ऊँचा धर्म माना गया है शायद इसी लिय आज भी लोगों में ईमानदारी, सच्चाई है। लेखक को यह सोचकर अच्छा लगता है कि अभी भी लोगों में इंसानियत बाकी है उदहारण के लिए वेबस और रेलवे स्टेशन पर हुई घटना की बात बताते हैं। इन उदाहरणो से लेखक के मन में आशा की किरण जागती है और वे कहते हैं कि अभी निराश नहीं हुआ जा सकता। लेखक ने टैगोर के एक प्रार्थना गीत का उदाहरण देकर कहा है कि जिस प्रकार उन्होंने भगवान से प्रार्थना की थी कि चाहे जीतनी विप्पति आये वे भगवान में ध्यान लगाएं रखें। लेखक को विश्वास है की एक दिन भारत इन्ही गुणों केबल पर वैसा ही भारत बन जायेगा जैसा वह चाहता है। अतः अभी निराश न हुआ जाय।

प्र°1 – लेखक ने स्वीकार किया है कि लोगों ने उन्हें भी धोखा दिया है फिर भी वह निराश नहीं है। आपके विचार से इस बात का क्या कारण हो सकता है|

प्र°2 दोषों का पर्दाफ़ाश करना कब बुरा रूप ले सकता है?

प्र°3 – आजकल के बहुत से समाचार पत्र या समाचार चैनल 'दोषों का पर्दाफ़ाश' कर रहे हैं। इस प्रकार समाचारों और कार्यक्रमों की सार्थकता पर तर्क सहित विचार लिखिए?

प्र 1. – लेखक ने स्वीकार किया है कि लोगों ने उन्हें भी धोखा दिया है फिर भी वह निराश नहीं है। आपके विचार से इस बात का क्या कारण हो सकता है| **(2)**

उत्तर ----------

प्र 2. 'मशीनी युग' ने कितने हाथ काट दिए हैं।' – इस पंक्ति में लेखक ने किस व्यथा की ओर संकेत किया है? (2)

उत्तर ----------

प्र 3. कवि ने पक्षी और बादल को भगवान के डाकिए क्यों बताया है? स्पष्ट कीजिए। (2)

उत्तर ----------

प्र 4. "लोगों ने सलाह दी कि समझदार आदमी इस शाम वाली बस से सफ़र नहीं करते।" लोगों ने यह सलाह क्यों दी? (3)

उत्तर ----------

प्र 5. पक्षी और बादल द्वारा लाई गई चिट्ठियों को कौन-कौन पढ़ पाते हैं? सोचकर लिखिए। (2)

उत्तर----------

प्र 6. निम्न शब्दों की कीजिए संधि:- (2)

सदा + एव ----------

महा + ऋषि ----------

इति + आदि ----------

गै + अक ----------

-

प्रश्नः 7. उस शब्द को चुनिए जिसमें अनुस्वार का प्रयोग होता है-

डाट दाव ढग
यात्रिक पाच गाव
गाठ चदन महगाई
माग साराश लाघना
सास सभव पाव
सूघना वसत रीतिया

प्रश्नः 8. नीचे दिए गए शब्दों में उचित स्थान पर अनुनासिक का प्रयोग करके शब्दों को पुनः लिखिए-

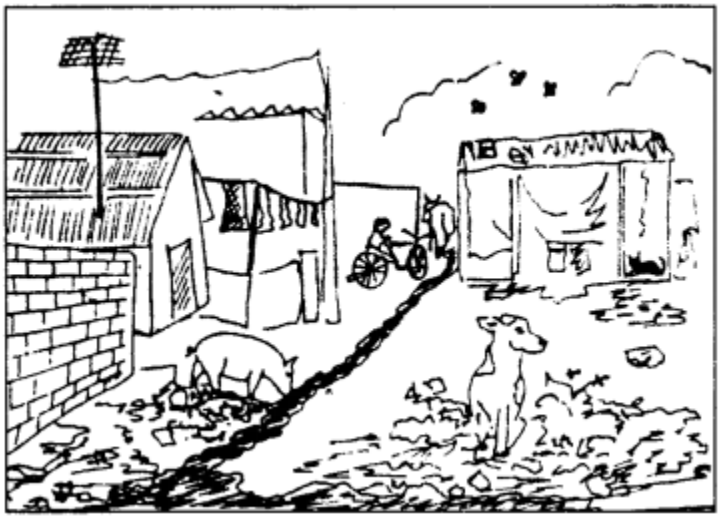
बंटवारा, संकरा, आंख, हंसमुख, अंगड़ाई, आंचल, सांस, कहां, ऊंट, आंवला, ऊंघना, आंधी, कांटा, गांव, चांदनी, आंसू, ऊंचाई, छंटनी, जांच, टांग, डांट, पहुंचना।

प्रश्न 9. दिए गए संकेत - बिंदुओं के आधार पर किसी एक विषय पर लगभग 80 से 100 शब्दों में अनुच्छेद लिखिए -

बच्चों की शिक्षा में माता-पिता की भूमिका

- शिक्षा और माता-पिता
- शिक्षा की महत्ता
- उत्तरदायित्व
- शिक्षाविहीन नर पशु समान।

प्रश्न 10. चित्र को देखकर अपने मन के विचारों को व्यक्त कीजिए |(50 से 60 शब्द)



MATHS

MATHEMATICS – Revision Worksheet of Ch-9,6 and 7

Learning Outcomes:

i) To help the students recall the concept of squares and square roots.
ii) To help the students recall the concept of cubes and cube roots.
iii) To help the students recall the concept of Algebraic expressions, multiplication of algebraic expressions.

Chapter -9 Algebraic Expressions

Please watch these videos:
https://www.youtube.com/watch?v=ZalY9RE-F-o

Definition:

The combination of constants and variables, connected by signs of fundamental operations (+, -, ×, ÷) is called an algebraic expression.

Multiplying a Monomial by a Polynomial

Multiplying a monomial by a trinomial

Example: $3p \times (4p^2 + 5p + 7)$. As in the earlier case, we use distributive law;

$$3p \times (4p^2 + 5p + 7)$$
$$= (3p \times 4p^2) + (3p \times 5p) + (3p \times 7)$$
$$= 12p^3 + 15p^2 + 21p$$

Multiplying a Polynomial by a Polynomial

Multiplying a binomial by a binomial

$(x - 4) \times (2x + 3)$

$$= x \times (2x + 3) - 4 \times (2x + 3)$$
$$= (x \times 2x) + (x \times 3) - (4 \times 2x) - (4 \times 3)$$
$$= 2x^2 + 3x - 8x - 12$$

$= 2x^2 - 5x - 12$

Multiplying a binomial by a trinomial

$(a+ 7)\ (a^2 + 3a + 5)$

$= a \times (a^2 + 3a + 5) + 7 \times (a^2 + 3a + 5)$

$= a^3 + 3a^2 + 5a + 7a^2 + 21a + 35$

$= a^3 + (3a^2 + 7a^2) + (5a + 21a) + 35$

$= a^3 + 10a^2 + 26a + 35$

Solve the following questions:

Q-1) If we subtract 4a – 7ab + 3b + 12 from 12a – 9ab + 5b – 3, then the answer is:

A. 8a+2ab+2b+15
B. 8a+2ab+2b-15
C. 8a-2ab+2b-15
D. 8a-2ab-2b-15

Q-2) The value of (2x + 5y) (2x + 3y) is:

A. $4x^2 + 16xy + 15y^2$
B. $4x^2 - 16xy - 15y^2$
C. $4x^2 + 16xy - 15y^2$
D. $4x^2 - 16xy + 15y^2$

Q-3) Find $3p \times (4p^2 + 5p + 7)$

A. $12p^3 + 15p^2 + 21p$
B. $15p^3 + 12p + 21$
C. $12p^3 + 15p + 21p^2$
D. $15p^2 + 12p + 21$

Q-4) The value of (a + b + c) × (abc) is:

A. $a^2bc - ab^2c - abc^2$
B. $a^2bc - ab^2c + abc^2$
C. $a^2bc + ab^2c - abc^2$
D. $a^2bc + ab^2c + abc^2$

Q-5) A trinomial has _____terms.

A. one
B. two
C. three
D. four

Q-6) $(3p^2qr) \times (-3p^3qr) \times (5p^2q^3r)$ is equal to

A. $-45p^7q^5r^3$
B. $45p^7qr^3$
C. $-45p^7q^5r^3$
D. $45p^6q^5r^3$

Q-7) Simplify $(a + b)(2a – 3b + c)$

Q-8) Add: $7xy + 5yz – 3zx$, $4yz + 9zx – 4y$, $–3zx + 5x – 2xy$

Q-9) Simplify: $(x + y)(2x + y) + (x + 2y)(x – y)$

Q-10) Simplify: $(a + b)(c – d) + (a – b)(c + d) + 2(ac + bd)$

Q-11) Simplify: $4p^2q^2 \times (p^2 – q^2)$

Q-12) Simplify: $a(a^2 + a + 1) + 5$ and find its value for $a = 0$

Q-13) Find: $3p \times (4p^2 + 5p + 7)$.

Q-14) Obtain the product of: a, 2b, 3c, 6abc

Q-15) Add: $a – b + ab$, $b – c + bc$, $c – a + ac$

Squares and Square Roots

Please watch these video:
https://www.youtube.com/watch?v=Rz0lOGtCkLE
https://www.youtube.com/watch?v=NFcOa-DBJj0

Perfect Squares

If a natural number m can be expressed as n^2, where n is also a natural number, then m is a square number.
4 can be expressed as $2 \times 2 = 2^2$ .9 can be expressed as $3 \times 3 = 3^2$, all such numbers can be expressed as the product of the number with itself.
Such numbers like 1, 4, 9, 16, 25, ... are known as square numbers.

Pythagorean triplets

For any natural number $m > 1$, we have $(2m)^2 + (m^2 – 1)^2 = (m^2 + 1)^2$. So, $2m$, $m^2 – 1$ and $m^2 + 1$ forms a Pythagorean triplet.

Square Roots

Square root is the inverse operation of square. Positive square root of a number is denoted by the symbol √

The square root of a number ‘a’ is that number which when multiplied by itself gives that number ‘a’ as product.

Solve these questions

Q-1) Which of the following is a perfect square number ?
(a) 1067
(b) 7828

(c) 4333
(d) 625.

Q-2) What will be the number of zeros in the square of the number 100 ?
(a) 2
(b) 4
(c) 6
(d) 8.

Q-3) How many natural numbers lie between 12^2 and 13^2 ?
(a) 20
(b) 22
(c) 24
(d) 26.

Q-4) Which of the following is not a Pythagorean triplet ?
(a) 3, 4, 5
(b) 6, 8, 10
(c) 5, 12, 13
(d) 2, 3, 4.

Q-5) When a square number ends in _____, the number whose square it is, will have either 4 or 6 in unit's place.

(a)2

(b)3

(c)6

(d)0

Q-6) By what least number should we divide 9408 to make it a perfect square?

(a)8

(b)7

(c)3

(d)2

Q-7) The smallest number by which 1000 should be multiplied so as to get a perfect square is
(a) 5
(b) 10
(c) 4
(d) 8.

Q-8) Find the least number which must be added to 1750 so as to get a perfect square. Also, find the square root of the obtained number.

Q-9) In a right triangle ABC, $\angle B = 90°$. If AC = 13 cm, BC = 5 cm, find AB.

Q- 10) The students of class VIII of a school donated Rs 2304 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.

Q-11) Find the square root of 42.25 using long division method.

Q-12) The area of a square playground is 3249 square meter. Find the length of one side of the playground.

Q-13) Find the least number that must be subtracted from 5607 so as to get a perfect square. Also find the square root of the perfect square.

Q-14) Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.

CUBES AND CUBE ROOT

Please watch these video:
https://www.youtube.com/watch?v=xqvQGWvkMXA
https://www.youtube.com/watch?v=87_qIofPwhg

Perfect Cube or Cube numbers

A perfect cube is an integer that is equal to some other integer raised to the third power. We refer to raising a number to the third power as cubing the number.

For example, 125 is a perfect cube because $5^3 = 125$. However, 121 is not a perfect cube because there is no integer n such Solve the following that $n^3 = 121$.

Cube root

Finding the cube root is the inverse operation of finding cube. We know that 23 = 8; so we say that the cube root of 8 is 2.
We write $\sqrt[3]{8} = 2$. The symbol $\sqrt[3]{}$ denotes 'cube-root.'

Solve the following:

Q-1) By what number should we divide 135 to get a perfect cube?

A. 3

B. 5

C. 7

D. 9

Q-2) Which of the following is not a perfect cube?

A. 216

B. 1000

C. 243

D. 1331

Q-3) If the digit in one's place of a number is 8, then the last digit of its cube will be:

A.3

B.4

C.6

D.2

Q-4) Find the smallest number by which the number 200 must be multiplied to obtain a perfect cube.

A.2

B.10

C.5

D.100

Q-5) If the digit in one's place of a number is 8, then the last digit of its cube will be:

A.3

B.4

C.6

D.2

Q-6) The one's digit of the cube of the number 326 is
A.2
B. 3
C.6
D. 4.

Q-7) The cube of an even natural number is
A. even
B. odd
C. maybe even, may be odd
D. prime number.

Q-8) A perfect cube of a number having 0 at its unit place, ends with _____ zeros.
A.1
B.2
C.3
D.4

Q-9) Apala makes a cuboid of plasticine of sides 5 cm, 4 cm, 2 cm. How many such cuboids will be needed to form a cube?

Q-10) Find whether 46656 is a perfect cube or not?

Q-11) Find the cube root of 3375.

Q-12) Find the volume of a cube whose side is 12cm

WORK PLAN 2

Class 8 -Science

Chapter – 2 Microorganisms: Friend and Foe

GENERAL INSTRUCTIONS:

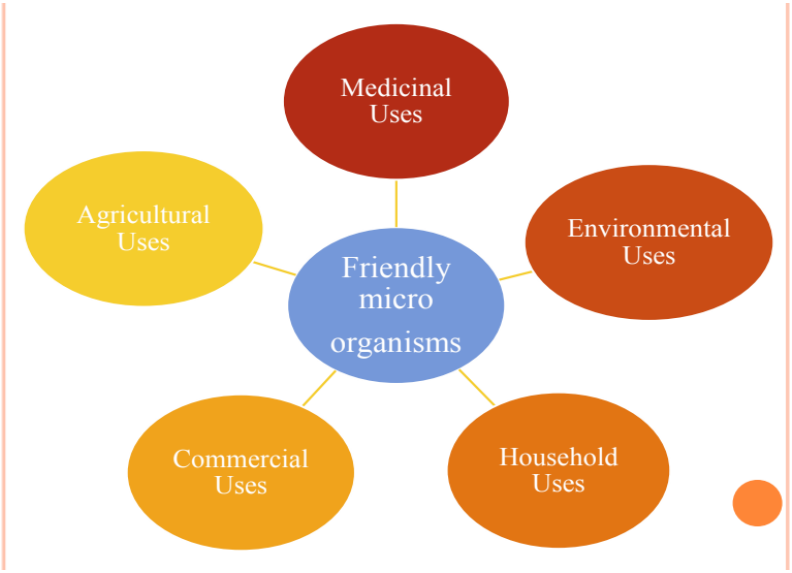
1. Read the text CAREFULLY
2. YouTube links for the explanation of the chapter are as follows:

https://www.youtube.com/watch?v=8ssWuUYHTe4.

https://www.youtube.com/watch?v=4lWcf_6wKy8#action=shar

WORK PLAN 2

Role of microbes in our life



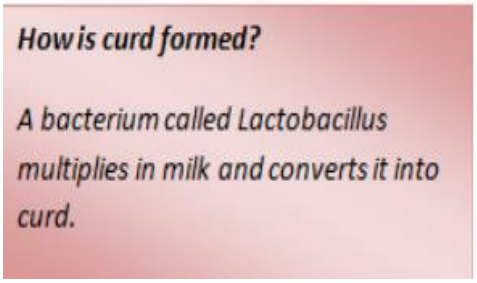
microbes are also beneficial to us in a variety of ways.

- They help in preparation of several household & industrial products like curd, cake, bread, antibiotics & beverages.
- They also help the environment acting as decomposers and biofertilizers.
- They play an important in sewage treatment as well.

- Friendly microbes :-
- Bacteria: -

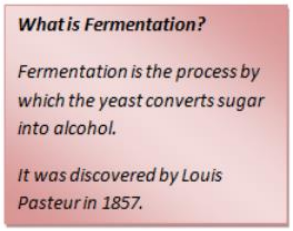
Bacteria are helpful because:

- It decomposes organic wastes (such as vegetable peels, animal remains, and faeces etc.).
- It is used in the preparation of medicines.
- It increases soil fertility by fixing nitrogen.
- It is used in the setting of curd and making cheese, pickles, and other food item converts milk into curd.
- Acetobacter aceti bacteria is used for the production of acetic acid from alcohol



.

- YEAST /FUNGI
- Yeast is used in the baking industry (to make bread, pastries, and cakes) because it helps in fermentation. It reproduces rapidly and produces carbon dioxide during respiration. Bubbles of the carbon-dioxide gas it produces fill the spaces in the dough and increases its volume.
- It is also used in the commercial production of alcohol and wine which is done by growing yeast on natural sugars present in fruit juices and grains like rice, wheat, and barley.



Antibiotics

What are Antibiotics? What are their uses?

Antibiotics are medicines that can kill or stop the growth of disease-causing microorganisms. **For Example**, Penicillin.

Antibiotics are used to:

- Cure a variety of diseases (such as streptomycin, erythromycin, and tetracycline that are made from bacteria and fungi),
- Cure microbial infection in animals (by mixing antibiotics with the feed of livestock and poultry), and
- Control several plant diseases.

What precautions should be followed while taking antibiotics and why?

Antibiotics should be taken only on the advice of the doctor, and one must complete the course the doctor prescribes.

Antibiotics taken in wrong doses may make the body resistant to the drug and it may not be effective in the future. Moreover, antibiotics may also kill the beneficial bacteria in the body.

Please Note: Antibiotics cannot cure cold and flu caused by viruses.

Vaccines

Vaccines: Vaccines are weakened or dead disease-causing microbes that are injected in our body to trigger the production of antibodies. These antibodies remain in the body for a long time to protect it against any attack of disease-causing microbes.
Vaccination: The process of protecting the body from pathogens with the help of vaccines is called Vaccination.

In vaccination, a memory of the disease causing organism is created inside the body, so that the body can fight back any further attack of the same disease-causing organism. Vaccine is introduced into the body which resembles a disease-causing organism, at the same time, very mild to cause any harm to the body. The body produces Antibodies in response to the vaccine. These Antibodies fight any further attack of the Antigen.

Name some of the diseases which can be prevented by vaccines

Some of the diseases that can be prevented by vaccination are:

- Cholera,
- Hepatitis,
- Smallpox, and

- Tuberculosis.

One can get necessary vaccines from nearby hospitals.

How do microbes clean up the environment?

Microbes or microorganisms decompose organic waste and dead remains of plants and animals and convert them into simpler substances (which can again be used by other plants and animals) by the process of biodegradation. Thus, they help us in getting rid of harmful and smelly substances and clean up the environment.

Harmful Microorganisms:-

Microorganisms are harmful in many ways: •

In human beings, plants and animals, some of the microorganisms cause diseases. Such disease-causing microorganisms are called pathogens.

Communicable Diseases: These are microbial diseases (diseases caused by microbes) that spread from one infected person to a healthy person through air, water, food or physical contact, such as cholera, chicken pox, common cold and tuberculosis.
Carriers: Insects and animals that carry disease-causing microbes and transfer them from one place to other are called carriers or vectors, such as house flies and mosquitoes.

How do houseflies transfer pathogens?

A housefly may sit on the garbage and animal excreta and the pathogens stick to their body. When they sit on uncovered food, these pathogens get transferred to the food. When someone eats this contaminated food, he or she may fall sick.

To avoid this, we must keep the food covered.

Name the carriers of:

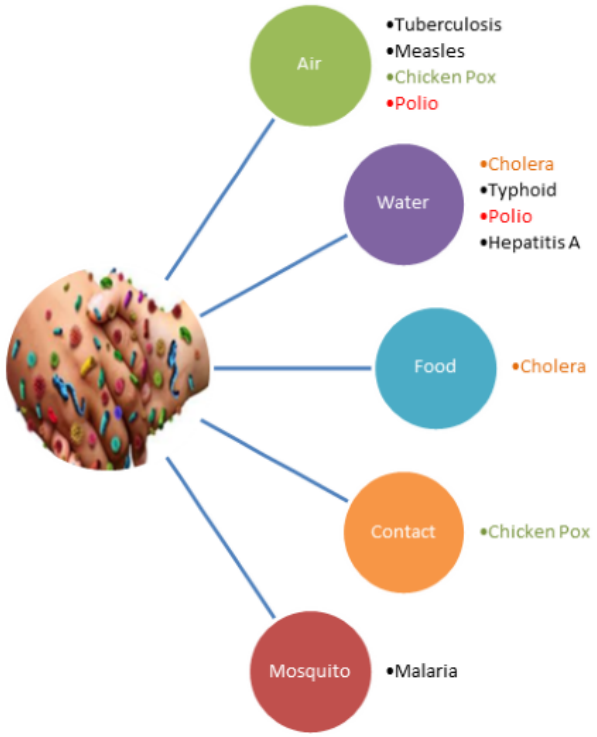
Malaria

Female Anopheles mosquito (carries the parasite of malaria called *Plasmodium*)

Dengue

Female Aedes mosquito (carries the dengue virus called Flavivirus)

Common Diseases and their Modes of Transmission



Types of diseases **There are two types of diseases:**

➢Communicable

➢Non Communicable

Communicable Disease Microbial diseases that can spread from an infected person to a healthy person through air, water, food or physical contact are called communicable diseases.

Examples of such diseases include cholera, common cold, chicken pox and tuberculosis.

Non-Communicable Disease The diseases that do not spread through sick to a healthy person are called non –communicable diseases.

We can also say that the non-communicable diseases are those which cannot be transferred from one person to another person.

For example: Lung Cancer or liver damage.

Preventing the spread of Communicable diseases:

Some simple methods of limiting the spread of communicable diseases are:

✓To keep the infected person separated from others and to advice him/ her to keep a handkerchief on the nose and mouth while sneezing.

✓To keep our environment or surrounding clean.

✓Never let garbage collect in the neighbourhood

.✓Timely vaccination against diseases.

✓To prevent mosquitoes from breeding, we should not allow water to collect anywhere in our neighborhood.

Diseases Caused by Microorganisms in Animals

Anthrax: A dangerous disease that affects human and cattle caused by a bacterium called Bacillus Anthracis.

Foot and mouth disease in Cattle: It is caused by a virus called Foot-and-mouth-disease Virus (FMDV).

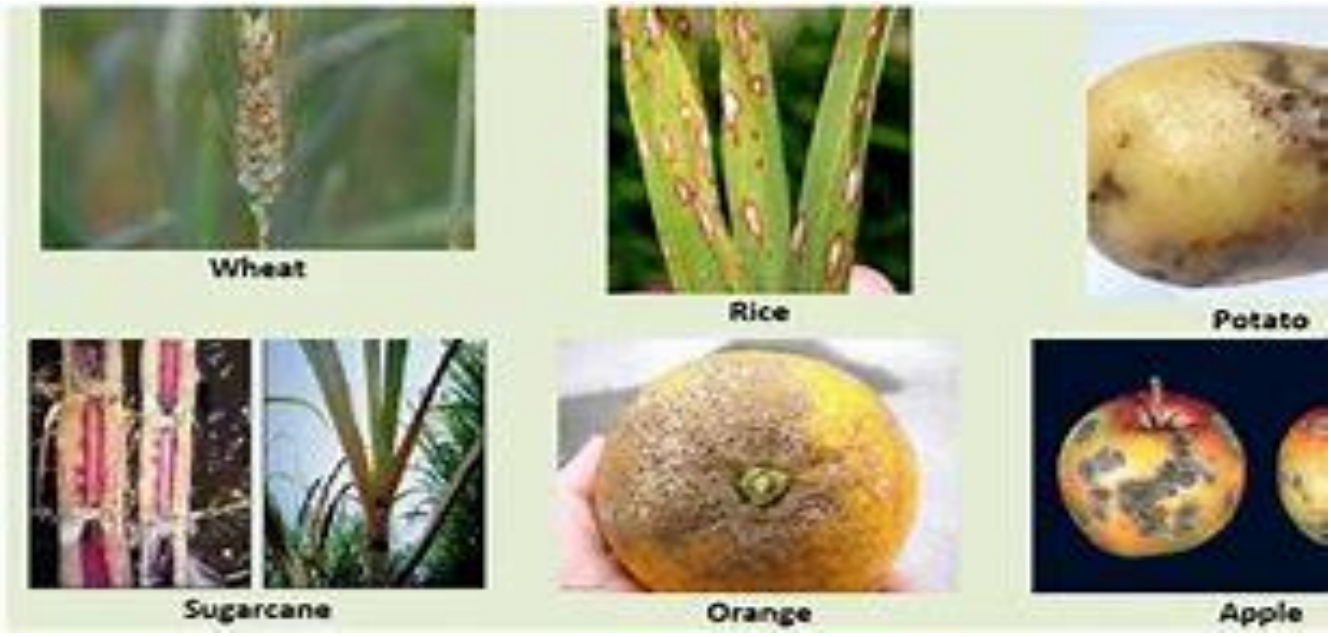
RAbies :- Rabies virus - cause by bite of rhabid dog , rodents

Bird flu – H5NI VIRUS

Table 2.1: Some Common Human Diseases caused by Microorganisms

Human Disease	Causative Microorganism	Mode of Transmission	Preventive measures (General)
Tuberculosis	Bacteria	Air	Keep the patient in complete isolation. Keep the personal belongings of the patient away from those of the others. Vaccination to be given at suitable age.
Measles	Virus	Air	
Chicken Pox	Virus	Air/Contact	
Polio	Virus	Air/Water	
Cholera	Bacteria	Water/Food	Maintain personal hygiene and good sanitary habits. Consume properly cooked food and boiled drinking water. Vaccination.
Typhoid	Bacteria	Water	
Hepatitis B	Virus	Water	Drink boiled drinking water. Vaccination.
Malaria	Protozoa	Mosquito	Use mosquito net and repellents. Spray insecticides and control breeding of mosquitoes by not allowing water to collect in the surroundings.

Diseases Caused by Microorganisms in Plants



Microorganisms can cause diseases in plants and reduce crop yield. Some of the plants in which they cause diseases are:

Table 2.2: Some Common Plant Diseases caused by Microorganisms

Plant Diseases	Micro-organism	Mode of Transmission	Figures
Citrus canker	Bacteria	Air	
Rust of wheat	Fungi	Air, seeds	
Yellow vein mosaic of *bhindi* (Okra)	Virus	Insect	

The plants can be protected by using chemicals that kill these microbes.

Common Diseases in Plants caused by Microbes

Citrus Canker is caused by Bacteria and spreads through **Air**.

Rust of Wheat is caused by Fungi and spreads through **Air or Seeds**.

Yellow Vein Mosaic of Okra (Bhindi) is caused by Virus and spreads through **Insects**.

Food Preservation

Why do we need to preserve food?

We need to preserve food because microorganisms that grow on food can sometimes produce toxic substances which are poisonous to us. If we consume this spoilt food, we can become seriously ill or die. Hence, we need to preserve food from being spoilt.

Common Methods of preserving food are:

Use of Preservatives

- Preservatives are used in pickles, jams and squashes to protect them from spoilage.
- Preservatives are common chemicals (such as salts and edible oils) that check the growth of microorganisms.
- In pickles, we add salt or acid preservatives.
- Two commonly used preservatives are sodium benzoate and sodium metabisulphite.

Use of Common Salt

- Meat and fish are covered with dry salt to check the growth of bacteria.
- Salt is also used to preserve tamarind, amla, raw mangoes etc.

Use of Sugar

- In jams, jellies and squashes, sugar is used as preservative.
- Sugar reduces the moisture content and hence, inhibits the bacteria from growing and spoiling food.

Use of Oil and Vinegar

- Oil and vinegar are added to pickles, fruits, vegetables, fish and meat as preservatives.
- Bacteria cannot survive in an environment with oil and vinegar.

Use of Hot and Cold Treatments

- Boiling milk lasts longer as boiling kills many microorganisms.
- Refrigerating food preserves as low temperature inhibits the growth of microbes.
- ***Pasteurisation*** *is the process by which milk is heated to about 70oC for 15 to 30 seconds and then, chilled suddenly before storing it. It prevents the growth of microbes. We can use pasteurised milk without boiling as it is free from harmful microbes.*
- **Pasteurisation was discovered by Louis Pasteur.**

Use of Sealed Air-tight Packets

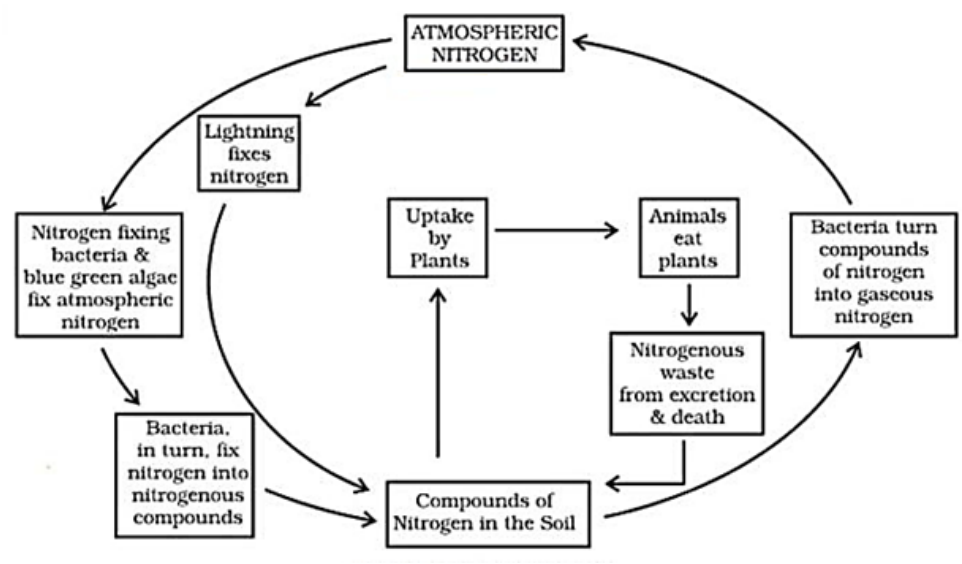
- Dry fruits and vegetables are sold in air-tight packets as microbes cannot survive without air. Hence, the food does not get spoilt in air tight packets.

Nitrogen Fixation

Nitrogen constitutes 78% of our atmosphere.

Atmospheric nitrogen cannot be used directly by the plants and animals. It gets fixed by either lightning or natural nitrogen fixers.

NITROGEN CYCLE



A step-by-step explanation of Nitrogen Cycle

- **Nitrogen Fixation**: Atmospheric nitrogen is converted by lightning or certain bacteria like *Rhizobium*, *Azotobacter* and blue-green algae (present in soil) into compounds usable by plants.
- **Nitrification**: Ammonia conversion into nitrites by *Nitrosomonas* and further conversion of nitrites into nitrates by *Nitrobacter*. Plants take up nitrogen in form of ammonia or nitrates.
- **Assimilation**: Roots of plants absorb these nitrogenous compounds from soils and plants use them to synthesize proteins and other compounds.
- Animals feeding on plants get these proteins and nitrogen compounds.
- **Ammonification**: When plants and animals die, bacteria and fungi present in the soil convert the nitrogenous wastes into compounds that can be used by plants again.
- **Nitrification :-** ammonia is converted inti nitrates and nitrites with the nitrifying bacteria which is uptaken by plants
- **Denitrification**:Nitrates can be converted into nitrogen gas which is released back in the atmosphere by certain bacteria. Eg. *Pseudomonas*

Hence, atmospheric nitrogen remains constant.

https://youtu.be/4lWcf_6wKy8 LINK – NITROGEN CYCLE

Science

Chapter – 2 Microorganisms: Friend and Foe

GENERAL INSTRUCTIONS:

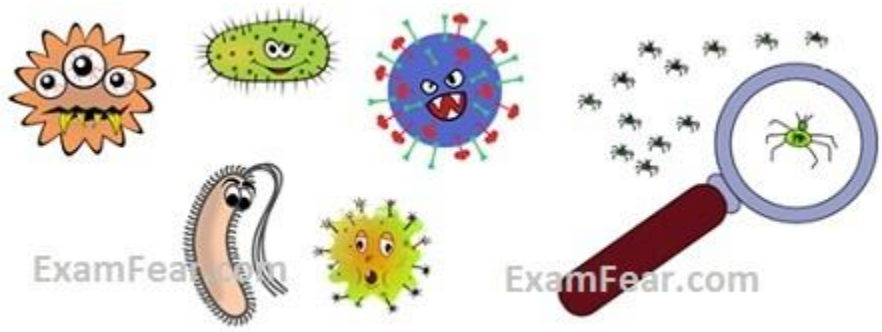
1. Read the text CAREFULLY
2. Youtube links for the explanation of the chapter are as follows:

https://www.youtube.com/watch?v=8ssWuUYHTe4.

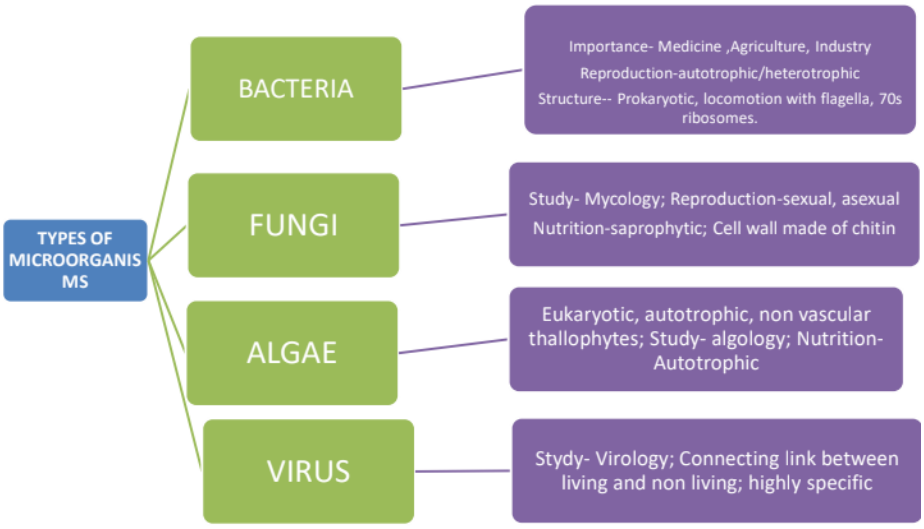
https://www.youtube.com/watch?v=4lWcf_6wKy8#action=share

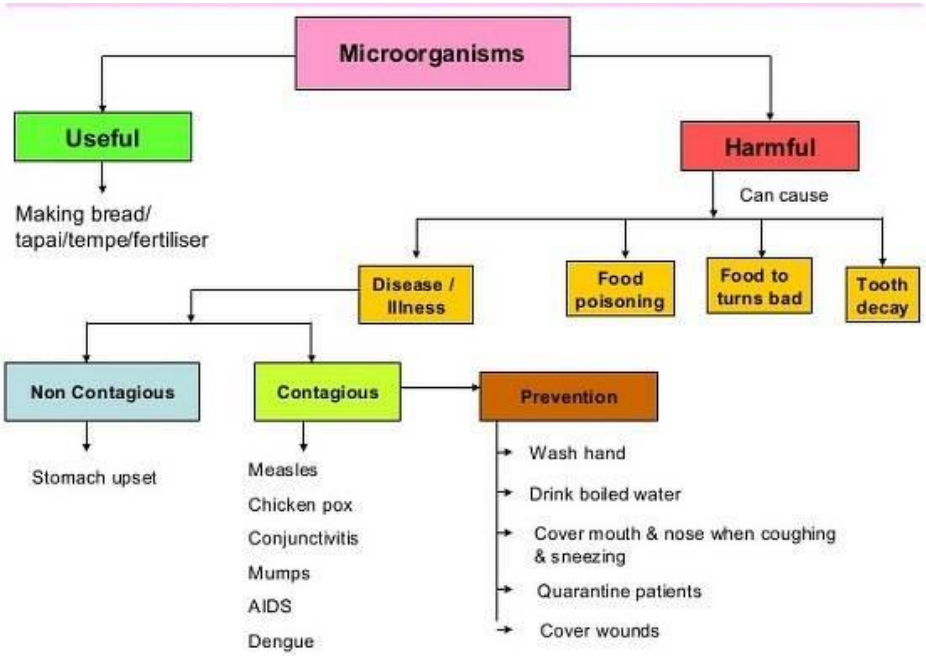
Introduction

Microbes are extremely small organisms that cannot be seen with naked eyes. They are also called 'Micro-organisms'. Examples: Bacteria, Fungi etc.



Microbes are not always harmful to us, but also helpful many a times. In this lesson, we will learn about both Friendly microbes as well as Harmful microbes.



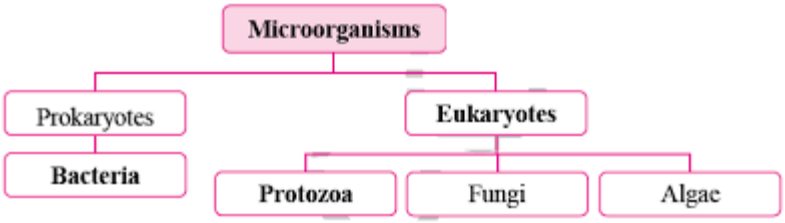


EXPLANATION -

Microorganisms: Organisms that are so small that they can only be seen through a microscope are called microorganisms or microbes.

The study of microorganisms is known as microbiology.

There are four major types of microorganisms:



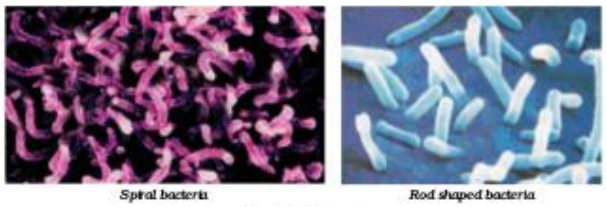


Fig. 2.1: Bacteria

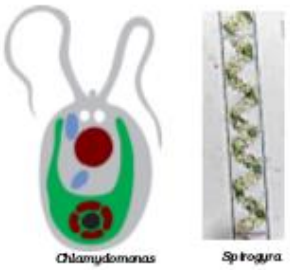


Fig. 2.2 : Algae

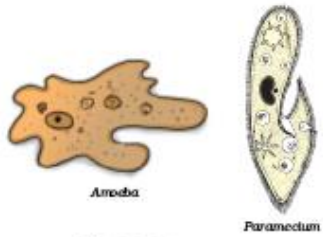


Fig. 2.3 : Protozoa

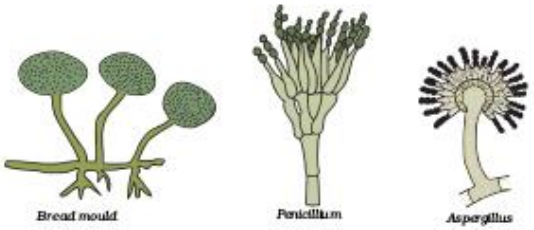
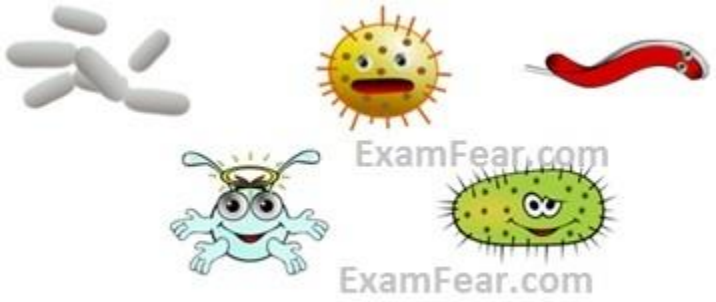


Fig. 2.4: Fungi

- Microbes are classified broadly into four groups:

- 1. Bacteria
  - Bacteria are one of the oldest life forms
  - They are unicellular i.e. they are made up of one cell
  - They appear in a variety of shapes & sizes (Spherical, elongated, spiral etc.)



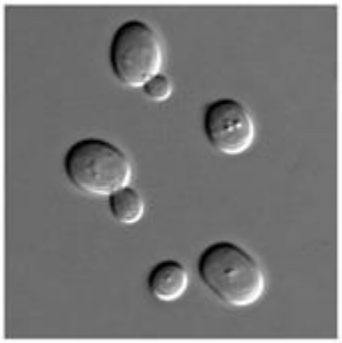
- They inhabit soil, water, radioactive waste & the deep portions of Earth's crust. In fact, they also live in plant /animal bodies
- They live in colonies
- Some of them are autotrophic (prepare their own food), while others are heterotrophic (depend on others for their food)
- 2. Fungi

You would have seen fungi as a white layer on bread when you leave it outside at room temperature for quite a few days. Fungi get favorable conditions & therefore they grow.

But, the same bread when kept inside a refrigerator remains fresh for a longer period of time.

- Fungi are multicellular e. they are made up of multiple cells
- They are Heterotrophic (Depend on others for their food)
- They live in colonies and prefer warm & moist places to grow
- They are immobile
- Some common examples of fungi are: Yeast, Mushroom, Molds

Yeast

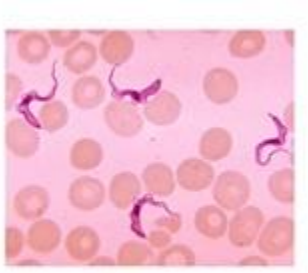


Mushroom

- 3. Protozoa
    - They are mostly Unicellular i.e. made of one cell
    - Some of them are autotrophic (prepare their own food), while others are heterotrophic (depend on others for their food)
    - They prefer moist & aquatic habitats
    - They can live singly, unlike bacteria & fungi
    - Some common examples of protozoa are: Amoeba, Paramecium, Trypanosoma

Amoeba

Paramecium



Trypanosoma

- 4. Algae
    - They are multicellular i.e. Made of multiple cells
    - They prefer mostly aquatic habitats
    - Some common examples of protozoa are: Spirogyra, Ulothrix, Chlamydomonas

Viruses: An exception

- Viruses are also microscopic, but they are not considered as living as well as non living micro-organism as they behave like non-living when outside host cell, and reproduce only when inside the host cell. Thus they are intermediate between living and nonliving and are intracellualr parasite

Assignment – 1

Question 1.
Bacteria, fungi, protozoa and _____ are the major four groups in which microorganisms are classified.

Question 2.

Bacteria are autotrophic as wells heterotrophic ? True/false

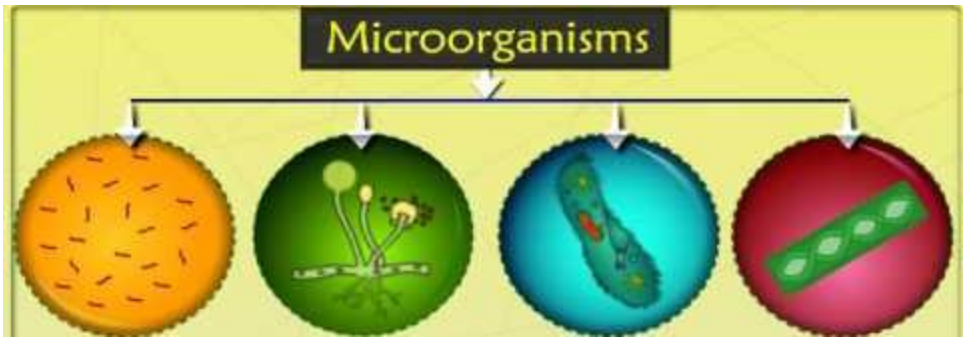
Question 3.
_____SPIRILLUM __ are SPIRAL -shaped bacteria

Question 4.

……BACTERIA/ AMOEBA ….. is a single-celled microorganism.

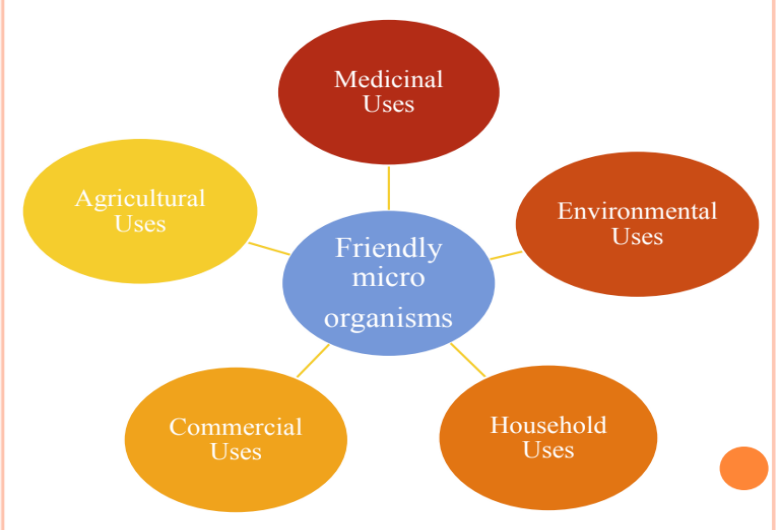
Question 5- Where are microbes found ?

Questions 6 Identify the form of microbes in the given image as A,B,Cand D



A B C D

Role of microbes in our life



You might know microbes only for causing harm to human beings by causing diseases and making us ill.

But, the truth is microbes are also beneficial to us in a variety of ways.

- They help in preparation of several household & industrial products like curd, cake, bread, antibiotics & beverages.
- They also help the environment acting as decomposers and biofertilizers.
- They play an important in sewage treatment as well.

- **Microbes' role in Curdling of milk**

Microbes play a vital role in preparing curd from milk. Curd contains a bacterium, *Lactobacillus*

Lactobacillus is a friendly-bacterium. It treats & prevents diarrhea, helps in food breakdown and absorption of nutrients.

Following changes lead to the formation of curd from milk:

- A small amount of curd (starter) is added to milk
- *Lactobacillus* (present in curd) converts sugars in milk (Lactose) into lactic acid
- Lactic acid imparts sour taste to curd
- Increased acidity causes milk proteins (casein) to turn into solid masses. This changes the texture of curd.

- **Microbes' role in Baking**

Yeast is used as a raising agent in baking. Most commonly used yeast is *Saccharomyces cerevisiae* .It is due to the action of yeast that the dough rises, if you leave it for sometime adding yeast to it during kneading.

Dough (Flour) contains carbohydrates. Yeast when added to it, converts carbohydrates into CO_2. Due the formation of CO_2, the dough rises. While preparing cake/ bread, the dough is baked. Once baked, the yeast dies. As a result, a soft and spongy baked product is formed.

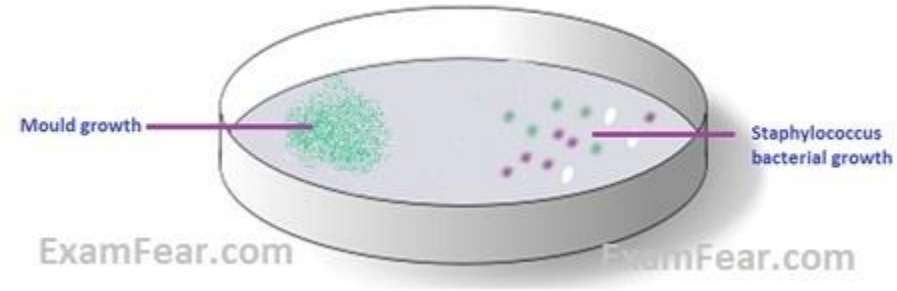
Microbes also play a vital role in fermenting idli/dosa batter. Idli/ dosa batter contain Urad pulses. These Urad seeds contain Lactic Acid Bacteria (LAB). These bacteria lead to the formation of Lactic acid and CO_2. Formation of Lactic acid gives a sour taste to the batter. Therefore, the batter should not be fermented for too long, else it might turn too sour.

- **Microbes' role in Antibiotics preparation**

Microbes are also used to prepare antibiotics, which are used to treat several bacterial infections. Antibiotics are chemical substances that kill disease-causing microbes. It is quite interesting to find that there are some microbes which cause diseases; on the other hand, some other microbes help in preparation of antibiotics, and thus, cure diseases.

Alexander Fleming, a Scottish scientist discovered the first antibiotic & named it ‘Penicillin’.

Penicillin discovery was ‘a chance’ discovery. Fleming was experimenting with Staphylococcus bacteria. A petridish (cell culture dish) had been left open by mistake, was found to be contaminated by blue-green mold. This visible mold growth inhibited bacterial growth around itself.



Fleming concluded that mould released a substance that inhibited bacterial growth. This substance was the antibiotic which was named ‘Penicillin’ after the mold *Penicillium notatum*.

- Penicillin was named after *Penicillium notatum*
- *AMOXCYLLIN , DOXYCYLLIN , STREPTOMYCIN, Azithromycin , TETRACYCLINE.*

❑ ***Role of Microbes in Vaccination***

Vaccination is a process in which vaccine is given to improve the immunity of the body against a specific disease. Vaccine is a biological preparation that resembles a disease causing microbe. These vaccines are made up of dead or very weak microbes.

In vaccination, a memory of the disease causing organism is created inside the body, so that the body can fight back any further attack of the same disease-causing organism. Vaccine is introduced into the body which resembles a disease-causing organism, at the same time, very mild to cause any harm to the body. The body produces Antibodies in response to the vaccine. These Antibodies fight any further attack of the Antigen.

Antigen refers to any foreign substance inside the body. These can be chemicals, micro-organisms (bacteria, virus etc), Toxins, Pollen etc. Antigens trigger immune system to produce antibodies. Antibodies recognize & neutralize pathogens. Each antibody binds to a specific antigen.

Antigen

Antibody

Vaccination has been a huge success. Diseases like small pox are eradicated. Many diseases like polio, tetanus, and measles have been reduced to a large extent.

DPT – Diptheria PERTUSIS, TETANUS

BCG - TUBERCULOSIS

OPV – ORAL POLIO VACCINE

MMR – MEASELS MUMPS RUBELLA

HEP V A E

- ***Role of microbes in production of Beverages***

Yeasts play an important role in the production of various alcoholic drinks. *Saccharomyces cerevisiae* is popularly termed as Brewer's yeast.

Saccharomyces cerevisiae ferment fruit juices & malted cereals. Molecules like glucose, fructose and sucrose are converted into C_2H_5OH and CO_2 and release energy. Yeasts perform this conversion in absence of oxygen.

$C_6H_{12}O_6$ --> $2C_2H_5OH + 2CO_2$

This reaction takes place in presence of enzyme Zymase. Alcohol (Ethanol) is produced as a result if this reaction. CO_2 released is used as raising agent in making bread.

- **Role of Microbes in preparation of chemicals**

Several chemicals are produced by Microbes like organic acids, enzymes and alcohol. Some of the examples of microbes which produce various organic acids are as follows:

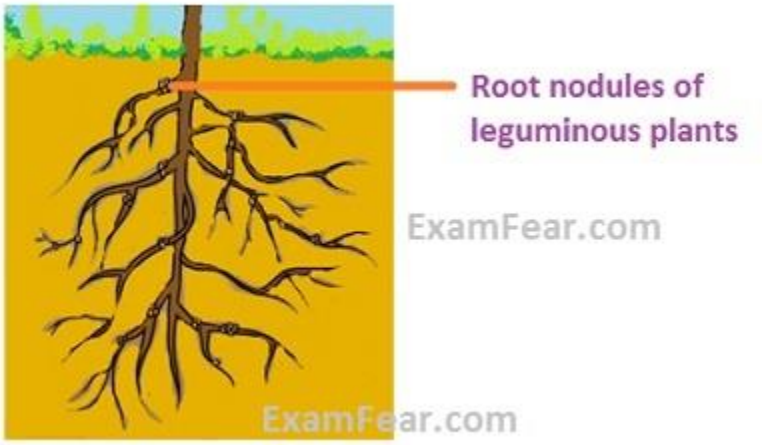
- Lactobacillus Lactic acid
- Acetobacter aceti Acetic acid
- Clostridium butylicum Butyric acid
- Aspergillus niger Citric acid

- **Microbes as Biofertilizers**

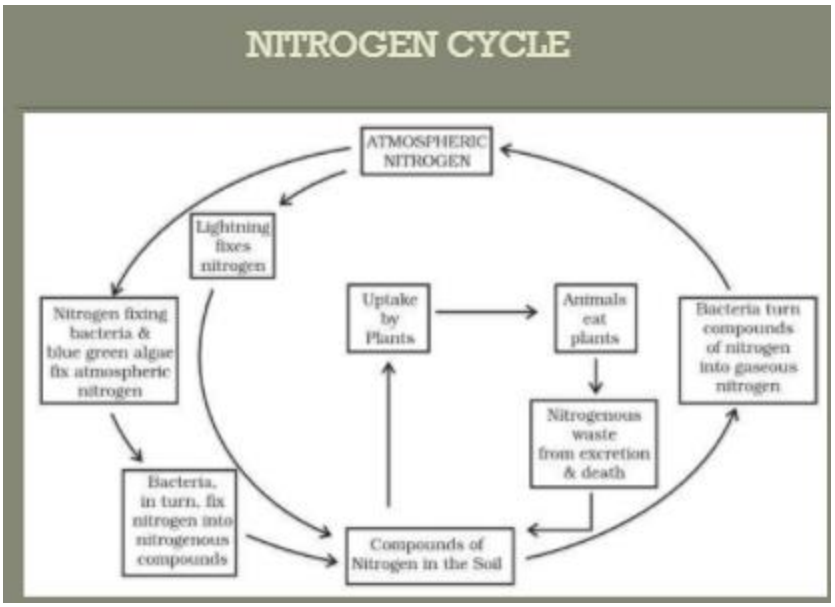
Fertilizers are substances added to enhance the soil fertility. This results in higher yields & healthier plants. Chemical fertilizers, however have several disadvantages like they are toxic to various life forms, can cause imbalance in soil ph, results in soil infertility, degrades ecosystem, plants become susceptible to many diseases, fruits & vegetables have high toxic residues. Excessive use of fertilizers can cause environmental pollution.

Use of biofertilizers is preferred as they do not include any of the disadvantages mentioned above. Biofertilizers are living organisms that enrich the soil nutrient quality. Some of the sources of biofertilizers are bacteria, fungi, cyanobacteria etc.

Rhizobium, is an example of a nitrogen fixing bacteria present in the root nodules of leguminous plants. Nitrogen is a macronutrient for the growth & development of plants. Rhizobium enriches soil with nitrogen.



Mycorrhiza, a symbiotic association between fungi & certain plants, also enhance the phosphorus content which in turn helps in better growth & development of plants. They are resistant to pathogens.



N=N ELEMENTAL

Microbes as Decomposers

Decomposition is the Process in which complex organic matter is broken down into simpler forms. This process breaks down dead & decaying organic matter into simple inorganic forms.

Organisms which help in decomposition are termed as ’Decomposers’. Bacteria & Fungi are important Decomposers.

Decomposers help the environment to get rid of dead & decaying matter and also enrich the soil quality for better growth of plants.

Harmful Micro-organisms

There are many microbes which cause several diseases in plants, animals & human beings. Such disease-causing organisms are called Pathogens. Pathogens include bacteria, viruses, fungi & protozoa.

In this section, we will discuss about the various diseases caused by various pathogens. 'Disease' is a disturbed ease. Disease results in a change in either the functioning or the appearance of one or more systems of the body for worse.

Diseases in Humans: Typhoid

- Pathogen
    - Bacteria, *Salmonella typhi*

- Pathogen's entry
    - Contaminated food & water
    - Primarily reach small intestine

- Symptoms
    - High fever
    - Headache
    - Weakness
    - Stomachache
    - Constipation
    - Loss of appetite
- Treatment
    - Diagnosed using Blood culture/ Urine culture or Widal test
    - Treated with a course of antibiotic medication

Diseases in Humans: Pneumonia

- Pathogen
    - Bacteria, *Streptococcus pneumoniae*
    - *Bacteria, Haemophilus influenzae*
    - Pathogen's entry
    - Through contaminated air
    - Inhalation of droplets released by infected person
    - Primarily reach lungs
    - Alveoli gets infected

- Symptoms
    - High fever
    - Chills
    - Cough

- Short of breath
- Headache
- Bluish lips & finger nails
- Weakness

- Treatment
    - Diagnosed using Urine test/Mucous test/ Chest X-ray
    - Treated with a course of antibiotic medication

Diseases in Humans: **Common Cold**

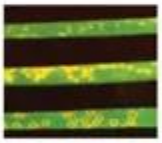
- Pathogen
    - Viruses (e.g: Rhino virus)
- Pathogen's entry
    - Through contaminated air/ objects
    - Inhalation of droplets released by infected person
    - Nose & respiratory passage gets infected
    - Lungs remain unaffected

- Symptoms
    - Sore throat
    - Cough
    - Headache
    - Nasal congestion
    - Nasal discharge

    - Hoarseness
- Treatment
    - Treated with medication like pain killers, cough syrups or nasal sprays
    - Antibiotics do not help a viral infection

SOME COMMON HUMAN DISEASES CAUSED BY MICROORGANISMS

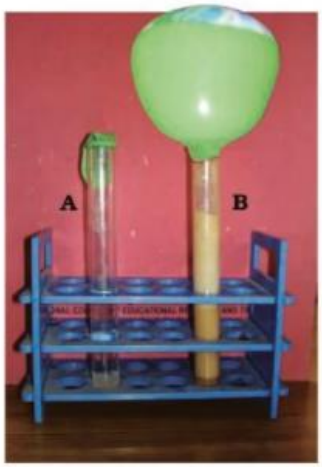
Human Disease	Causative Microorganism	Mode of Transmission	Preventive measures (General)
Tuberculosis	Bacteria	Air	Keep the patient in complete isolation. Keep the personal belongings of the patient away from those of the others. Vaccination to be given at suitable age.
Measles	Virus	Air	
Chicken Pox	Virus	Air/Contact	
Polio	Virus	Air/Water	
Cholera	Bacteria	Water/Food	Maintain personal hygiene and good sanitary habits. Consume properly cooked food and boiled drinking water. Vaccination.
Typhoid	Bacteria	Water	
Hepatitis B	Virus	Water	Drink boiled drinking water. Vaccination.
Malaria	Protozoa	Mosquito	Use mosquito net and repellents. Spray insecticides and control breeding of mosquitoes by not allowing water to collect in the surroundings.

Plant Diseases	Micro-organism	Mode of Transmission	Figures
Citrus canker	Bacteria	Air	
Rust of wheat	Fungi	Air, seeds	
Yellow vein mosaic of *bhindi* (Okra)	Virus	Insect	

Extended Learning — Activities and Projects

1. Pull out a gram or bean plant from the field. Observe its roots. You will find round structures called root nodules on the roots. Draw a diagram of the root and show the root nodules.
2. Collect the labels from the bottles of jams and jellies. Write down the list of contents printed on the labels.
3. Visit a doctor. Find out why antibiotics should not be overused. Prepare a short report.
4. Project : Requirements – 2 test tubes, marker pen, sugar, yeast powder, 2 balloons and lime water.

   Take two test tubes and mark them A and B. Clamp these tubes in a stand and fill them with water leaving some space at the top. Put two spoonfuls of sugar in each of the test tubes. Add a spoonful of yeast in test tube B. Inflate the two balloons incompletely. Now tie the balloons on the mouths of each test tube. Keep them in a warm place, away from sunlight. Watch the setup every day for next 3-4 days. Record your observations and think of an explanation.



   Now take another test tube filled 1/4 with lime water. Remove the balloon from test tube B in such a manner that gas inside the balloon does not escape. Fit the balloon on the test tube and shake well. Observe and explain.

UESTION-ANSWERS Note: Do the following work in Science Notebook.

Q1. How is yeast useful to us?

A1. Yeast is used in the baking industry (to make bread, pastries, and cakes) because it helps in fermentation. It reproduces rapidly and produces carbon dioxide during respiration. Bubbles of the gas fill the spaces in the dough and increases its volume. Also, it is also used in the commercial production of alcohol and wine which is done by growing yeast on natural sugars present in fruit juices and grains like rice, wheat, and barley.

Q2. What are Antibiotics? What are their uses?

A2. Antibiotics are medicines that can kill or stop the growth of disease-causing microorganisms. For Example, Penicillin. Many antibiotics are being produced from bacteria and fungi. Antibiotics are used to: • Cure a variety of diseases. Streptomycin, erythromycin, and tetracycline are some of the commonly known antibiotics which are made from fungi and bacteria. • Cure microbial infection in animals (by mixing antibiotics with the feed of livestock and poultry). • Control several plant diseases.

Q3. What precautions should be followed while taking antibiotics and why?

A3. Precautions for using antibiotics: - (i)Antibiotics should be taken only on the advice of the qualified doctor. (ii)One must complete the course prescribed by the doctor. (iii)Antibiotics should not be taken when we are suffering from a viral disease because antibiotics are not effective against disease-causing viruses. Antibiotics taken in wrong doses may make the drug less effective when we might need it in future. Moreover, antibiotics taken unnecessarily may kill the beneficial bacteria in the body.

Q4. Name some of the diseases which can be prevented by vaccines.

A4. Some of the diseases that can be prevented by vaccination are: ▪ Cholera ▪ Hepatitis ▪ Smallpox ▪ Tuberculosis.

SOCIAL STUDIES

Revision worksheet

Understanding Laws(Worksheet)

Choose the correct answer:

Question 1.
When did Jallianwala Bagh's massacre take place?
(a) 13 April
(b) 13 March
(c) 13 May
(d) 13 June

Question 2.
Where is Jallianwala Bagh located?
(a) Amritsar
(b) Delhi
(c) Agra
(d) Dehradun

Question 3.
When did the Rowlatt Act come into effect?
(a) On 10th February, 1917
(b) On 10th January, 1918
(c) On 10th March, 1919
(d) On 20th April, 1920

Question 4.
Who gave the order to fire in Jallianwala Bagh on innocent people protesting calmly?
(a) General Dyer
(b) Dr. Satyapal

(c) Dr. Saifuddin Kichlew
(d) None of these

Question 5.
What is the violence free relationship where husband and wife are equal with each other and they enjoy equal rights?
(a) Equal relationship
(b) Discriminated relationship
(c) Evolution
(d) All of these

Question 6.
Law on Domestic Violence was made in this year
(a) 2005
(b) 2006
(c) 2007
(d) 2008

Question 7.
Who was the Afro-American woman who refused to give her seat to a white man in 1955?
(a) Rosy Peter
(b) Rosa Parks
(c) Rosymary
(d) Rose Jose

Match the following:

Column A	Column B
(a) Domestic Violence	(i) Disapprove of a Person or thing
(b) Colonies	(ii) Guilty of criminal offense

(c) Convict	(iii) Quarrel between Husband and Wife
(d) Criticise	(iv) Country under Foreign Ryles

Assignment

1. State two reasons why historians refute the claim that the British introduced the rule of law in India
2. Mention the different categories under which Law can be classified.
3. When was the Hindu Succession Amendment Act revised?

SSANSKRIT

संसारसागरस्य नायकाः

1. एकपदेन उत्तरत

(एकपद में उत्तर दो)

(क) कस्य राज्यस्य भागेषु गजधरः शब्दः प्रयुज्यते?

उत्तराणि:

राजस्थानस्य

(ख) गजपरिमाणं कः धारयति?

उत्तराणि:

गजधरः

(ग) कार्यसमाप्तौ वेतनानि अतिरिच्य गजधरेभ्यः किं प्रदीयते स्म?

उत्तराणि:

सम्मानम्

(घ) के शिल्पिरूपेण न समादृताः भवन्ति?

उत्तराणि:

गजधराः।

2. अधोलिखितानां प्रश्नानामुत्तराणि लिखत

(निम्नलिखित प्रश्नों के उत्तर लिखो)

(क) तडागाः कुत्र निर्मीयन्ते स्म?

उत्तराणि:

तडागाः अशेषे देशे निर्मीयन्ते स्म।

(ख) गजधराः कस्मिन् रूपे परिचिताः?

उत्तराणि:

गजधराः ‘समाजस्य गाम्भीर्यस्य मापकाः’ इत्यस्मिन् रूपे परिचिताः।

(ग) गजधराः किं कुर्वन्ति स्म?

उत्तराणि:

गजधराः वास्तुकाराः रूपेण नवनिर्माणस्य योजनां प्रस्तुवन्ति स्म, भाविव्ययम् आकलयन्ति स्म। उपकरणभारान् संग्रहणन्ति स्म।

(घ) के सम्माननीयाः?

उत्तराणि:

गजधराः सम्माननीयाः।

3. रेखाङ्कितानि पदानि आधृत्य प्रश्न निर्माणं कुरुत –

(रेखांकित पदों के आधार पर प्रश्ननिर्माण करो)

(क) सुरक्षाप्रबन्धनस्य दायित्वं गजधराः निभालयन्ति स्म।

उत्तराणि:

कस्य दायित्वं गजधराः निभालयन्ति स्म?

(ख) तेषां स्वामिनः असमर्थाः सन्ति।

उत्तराणि:

केषां स्वामिनः असमर्थाः सन्ति?

(ग) कार्यसमाप्तौ वेतनानि अतिरिच्य सम्मानमपि प्राप्नुवन्ति ।

उत्तराणि:

कार्यसमाप्तौ कानि अतिरिच्य सम्मानमपि प्राप्नुवन्ति?

(घ) गजधरः सुन्दरः शब्दः अस्ति।

उत्तराणि:

कः सुन्दरः शब्दः अस्ति?

(ङ) तडागाः संसारसागराः कथ्यन्ते?

उत्तराणि:

के संसारसागराः कथ्यन्ते?

4. अधोलिखितेषु यथापेक्षितं सन्धिं/विच्छेदं कुरुत –

(निम्नलिखित में यथापेक्षित सन्धि या सन्धिविच्छेद करो)

(क) अद्य + अपि = …….

(ख) ……. + ……. = स्मरणार्थम्।

(ग) इति + अस्मिन् = …….

(घ) ……. + …….. = एतेष्वेव।

(ङ) सहसा + एव = …….

उत्तराणि:

(क) अद्य + अपि = अद्यापि।

(ख) स्मरण + अर्थम् = स्मरणार्थम्।

(ग) इति + अस्मिन् = इत्यस्मिन्।

(घ) एतेषु + एव = एतेष्वेव।

(ङ) सहसा + एव = सहसैव।

5. मञ्जूषातः समुचितानि पदानि चित्वा रिक्तस्थानानि पूरयत –

(मञ्जूषा से उचित पदों को चुनकर रिक्त स्थानों की पूर्ति करो)

मञ्जूषा – रचयन्ति गृहीत्वा सहसा जिज्ञासा सह ।

(क) छात्राः पुस्तकानि …… विद्यालयं गच्छन्ति।

(ख) मालाकाराः पुष्पैः मालाः ……. ।

(ग) मम मनसि एका …….. वर्तते।

(घ) रमेशः मित्रैः …… विद्यालयं गच्छति।

(ङ) …….. बालिका तत्र अहसत।

उत्तराणि:

(क) छात्राः पुस्तकानि गृहीत्वा विद्यालयं गच्छन्ति।

(ख) मालाकाराः पुष्पैः मालाः रचयन्ति।

(ग) मम मनसि एका जिज्ञासा वर्तते।

(घ) रमेशः मित्रैः सह विद्यालयं गच्छति।

(ङ) सहसा बालिका तत्र अहसत।

6. पदनिर्माणं कुरुत

(पदों का निर्माण करो)

धातुः – प्रत्ययः – पदम्

यथा- कृ + तुमुन् = कर्तुम्

ह्यु + तुमुन् = ……

तु + तुमुन् = ……

उत्तराणि:

धातुः – प्रत्ययः – पदम्

यथा- कृ + तुमुन् = कर्तुम्

ह्यु + तुमुन् = तर्तुम

तु + तुमुन् = हर्तुम

यथा – नम् + क्त्वा = नत्वा

गम् + क्त्वा = ……

त्यज् + क्त्वा = ……

भुज् + क्त्वा = ……

उत्तराणि:

उत्तराणि:

7. कोष्ठकेषु दत्तेषु शब्देषु समुचितां विभक्तिं योजयित्वा रिक्तस्थानानि पूरयत –

(कोष्ठकों में दिए गए शब्दों में समुचित विभक्ति का योग करके रिक्तस्थानों को पूरा करो)

यथा-विद्यालयं परितः वृक्षाः सन्ति। (विद्यालय)

(क) ……. उभयतः ग्रामाः सन्ति। (ग्राम)

(ख) ……. सर्वतः अट्टालिकाः सन्ति। (नगर)

(ग) धिक् …… । (कापुरुष)

उत्तराणि:

(क) ग्रामम् उभयतः ग्रामाः सन्ति ।

(ख) नगरं सर्वतः अट्टालिकाः सन्ति ।

(ग) धिक् कापुरुषम्।

यथा-मृगाः मृगैः सह धावन्ति। (मृग)

(क) बालकाः ……. सह पठन्ति। (बालिका)

(ख) पुत्रः …….. सह आपणं गच्छति। (पितृ)

(ग) शिशुः ……. सह क्रीडति। (मातृ)

उत्तराणि:

(क) बालकाः बालिकाभिः सह पठन्तिः।

(ख) पुत्रः पित्रा सह आपणं गच्छति।

(ग) शिशुः मात्रा सह क्रीडति।

यथा – नम् + क्त्वा = नत्वा

गम् + क्त्वा = गत्वा

त्यज् + क्त्वा = त्यक्त्वा

भुज् + क्त्वा = भुक्तवा