

EAST POINT SCHOOL

CLASS- IX

WORKSHEET- 3

CHAPTER- Why do we fall ill?

A. Analogy type questions.

1. Poliomyelitis: Poliovirus:: AIDS: ————
2. Chickenpox: Direct contact :: Tuberculosis: ————
3. Typhoid: Alimentary canal:: Japanese encephalitis: ————.
4. Mosquitoes: Stagnant water:: Hepatitis virus: ————.
5. General effects: Fever :: Local effects: ————.

B. Match the following columns.

1. Chronic disease Infectious diseases Kala- azar
2. Congenital disease Skin infections High blood pressure
3. Acquired diseases Cancer. Non- infectious diseases
4. Fungi. Sleeping sickness Tuberculosis
5. Protozoans Diabetes Athlete's foot

YOU TUBE LINK :- [Ppt why do we fall illwww..Shaala.com](http://www.Shaala.com)

EAST POINT SCHOOL
Structure of Atom
Class 9
October

FILL IN THE BLANKS

1. According to Maharishi Kanad, the tiniest to tiny particle of a pure substance is called _____.
2. An atom is the smallest unit of an element which takes part in a _____.
3. Mass of an electron is $1/1837$ times less than the mass of one atom of _____.
4. The K-shell of any atom cannot have more than _____ electrons.
5. Almost all the mass of an atom is concentrated in a small region of space called the _____.
6. The subatomic particle not present in a hydrogen atom is _____.
7. Cathode ray are a beam of fast moving _____ .
8. _____ and _____ more or less complexly make up the mass of an atom.
9. The number of neutrons in the neutrons in the neutrons of an atom can be calculated by _____ the atomic number of _____ its mass number.
10. The isotopes of an element do not differ in the number of _____ but do differ in the number of _____.

VIDEO LINK: [Rutherford's Model of Atoms - Class 9 Tutorial](#)

COMPUTER

Q1. Explain briefly about the rewards of entrepreneurship.

Chapter 3: Poverty as a Challenge

STUDY NOTES

- ❖ **Poverty line:** Poverty line is the level of income which divides the population as **poor and non-poor**. It is drawn on the basis of minimum consumption expenditure. It is a line that demarcates the people who are living below the poverty line from those who are living above the poverty line.
- ❖ **Absolute poverty** refers to the total number of people living below poverty line.
- ❖ **Relative poverty** refers to poverty of people in relation to other people, regions or nations.
- ❖ **Measurement of poverty:** In India, the daily minimum nutritional requirement for a person is fixed at 2400 calories in rural areas while in urban areas it is fixed at 2100 calories. The poverty line fixed for rural areas is Rs 816 per capita per month and for urban areas it is fixed at Rs. 1000 per capita per month.
- ❖ **Estimates of Poverty:** The incidence of poverty in India was around 55 per cent in 1973 which declined to 36 per cent in 1993 and further to 26 per cent in 2000.
- ❖ **Vulnerable groups**-Under the social groups - Scheduled Caste, Scheduled Tribes. Under the economic groups - agricultural labour households and the urban class casual labour households
- ❖ **Inequality of Incomes within a Family:**
In poor families, old people, women and female children are denied equal access to family's available resources. They are *the poorest of the poor*.

Assignment

-
- 1) Why do different countries use different poverty lines? (1)
 - 2) What do you think would be the "minimum necessary level" in your locality? (1)
 - 3) Why is the calorie requirement of rural areas more than that in urban areas? (1)
 - 4) What is the accepted average calorie requirement in India? (1)
 - 5) How much amount is needed to fulfill minimum calorie requirement in India? (1)
 - 6) What does NSSO mean? (1)
 - 7) How does poverty line vary with time and place? (3)
 - 8) What is the concept of poverty line? How is the poverty line determined in India? (5)
 - 9) Which groups are most vulnerable to poverty? (3)
 - 10) Describe poverty trends in India since 1993. (3)
 - 11) How is inequality of incomes reflected even within a family? Illustrate with an example. (3)

Video Link

<https://www.youtube.com/watch?v=OzvxHSnnqXg>

<https://www.youtube.com/watch?v=4vo6Q0beHyM>

<https://www.youtube.com/watch?v=E4wjP2sUUkY>

<https://www.youtube.com/watch?v=gHY3asP-bp4>

<https://www.youtube.com/watch?v=MUGQZU4nVoM>

https://www.youtube.com/watch?v=Hr1ifY_t8Xw

<https://www.youtube.com/watch?v=V8xzWqXzky8>

https://www.youtube.com/watch?v=Q8xam_3rMw8

EAST POINT SCHOOL

CLASS IX

ENGLISH ASSIGNMENT

Weathering the Storm in Ersama

Summary

Prashant's visit to Ersama and coming of the storm

Prashant went to his friend's house in Ersama on 27 October, 1999. It was seven years after his mother's death. In the evening, Heavy and continuous rain filled the darkness. Trees were uprooted. The waters entered his friend's house. The speed of the wind was 350 km. per hour.

Scene of destruction

Everything was destroyed there. The scene of destruction was horrible. Prashant and his friend's family had taken refuge on the roof. Prashant won't forget the horrible scene that he saw. He was greatly shocked to see a huge sheet of water all over. It covered everything as far as the eye could see. Houses were broken. Dead animals and human bodies floated everywhere. Huge trees had fallen. Two coconut trees had fallen on the house of Prashant's friend. Its tender coconuts kept them alive for several days.

Prashant went back home

For a couple of days Prashant sat huddled on the roof-top with his friend's family. They were nearly frozen in cold wind. Prashant thought of his family. He decided to go, though his friend's family asked him to stay back. Prashant was worried about his family. So he got a strong stick. He then started on his eighteen-kilometre journey to his village. The flood waters were swollen.

Prashant on way to his village

Prashant waded through water. On the way he found two friends of his uncle. They were also returning home. They had to push away many floating dead bodies of human beings and animals to move ahead. There were hardly any houses left in the villages that they passed. Prashant wept thinking that no one in his family would have survived.

Prashant reaches his village

Finally, Prashant reached his village Kalikuda. The roof was the only thing that was left of his house. So, he went to the Red Cross shelter to look for his family there. He saw his maternal grandmother there. It was a miracle for them to see Prashant alive. They had thought Prashant to be dead. Prashant's family was there.

Prashant, now leader of his village

Prashant decided to assess the damage and the danger awaiting the survivors. All the houses in the village had been washed away. Prashant organized a group of youths of his village. It pressurized the merchant to give them some rice. They made a fire and cooked the rice. However, the rice was rotting. His next step was to clean the place of filth, urine and floating dead bodies.

Children devise a method to get food from above

On the fifth day, a military helicopter dropped food. But it didn't return. The group deputed the children to lie there. They had the empty utensils on their stomachs. It was to

communicate to the passing helicopters that they were hungry. Finally, they got food through airdropping.

Prashant becomes a saviour and a social worker

Prashant became a saviour. He brought the orphaned children and made a shelter for them. He asked the women to look after them. But he soon found that women and children were sinking deeper and deeper in their grief. He made them join the food-for-work programme. It was started by a Non- Government Organization (NGO). He engaged other volunteers to help keep widows to start their lives. He also believed that orphans should be resettled in their own community.

After six months

Six months passed soon after the super cyclone. Prashant now thought about himself. Earlier he had no time to bother about his own pain. The widows and orphaned children of the village thought of Prashant only in their hours of grief.

Video Link

https://www.youtube.com/watch?v=rWH6F4jEmNM&ab_channel=AshimDasMVChannel

Answer the following questions in 60 – 80 words.

1. Describe the destruction caused by the super cyclone as narrated in the story 'Weathering the Storm in Ersama'.
2. Describe how Prashant reached his village after the cyclone?
3. During natural calamities, women and children need more protection. Explain Prashant's role in organising relief measures for women and children during the storm in Ersama.
4. The future of a country depends upon the power of youth. Explain how Prashant organised the youth in Ersama to help the cyclone-affected people.

Writing Skill

On the basis of the clipping shown and the outline given, write a story in 100- 150 words.

Outline: On way to school—chaos on main road—accident at metro construction site—scene of the accident—student volunteers help in controlling.



East point school

Class IX-Geography

Study Notes

Chapter 5 Natural vegetation and Wildlife

Introduction:

- Natural vegetation refers to a plant community, which has grown naturally without human aid and has been left undisturbed by humans for a long time. This is termed as **virgin vegetation**.
- The term **flora** is used to denote plants of a particular region or period. The species of animals are referred to as **fauna**.
- This huge diversity in flora and fauna kingdom is due to the following factors:

1) Relief

Land

Land affects natural vegetation directly and indirectly.

- The fertile level is generally devoted to agriculture.
- The undulating and rough terrains are areas where grassland and woodlands develop and give shelter to a variety of wildlife.

Soil

Different types of soils provide a basis for different types of vegetation.

- The sandy soils of the desert support cactus and thorny bushes, while wet, marshy, deltaic soils support mangroves and deltaic vegetation.
- The soil at the hill slopes has conical trees.

2) Climate

Temperature

The character and extent of vegetation are mainly determined by temperature along with humidity in the air, precipitation and soil. The fall in the temperature affects the vegetation and its growth.

Photoperiod (Sunlight)

The variation in the duration of sunlight at different places is due to differences in latitude, altitude, season and duration of the day. Due to the longer duration of sunlight, trees grow faster in summer.

Precipitation

Types of Vegetation

In India, the following major types of vegetation are found:

1. Tropical Evergreen Forests

2. Tropical Deciduous Forests
3. Tropical Thorn Forests and Scrubs
4. Montane Forests
5. Mangrove Forests

Let's study them in detail.

1. Tropical Evergreen Forests

- These forests are present in the Western Ghats and the island groups of Lakshadweep, Andaman and Nicobar, upper parts of Assam and Tamil Nadu coast.
- These forests grow best in areas having rainfall more than 200 cm with a short dry season.
- The trees reach great heights up to 60 metres or even above.
- It has the vegetation of all kinds i.e trees, shrubs and creepers giving it a multilayered structure.
- These forests appear green all the year-round.
- Important trees of this forest are ebony, mahogany, rosewood, rubber and cinchona.
- Common animals found in these forests are elephant, monkey, lemur and deer.

2. Tropical Deciduous Forests

- These forests are also called the **monsoon forests**.
- They are spread over the region having rainfall between 200 cm and 70 cm.
- They shed their leaves about 6 to 8 weeks in the dry summer.
- In these forests, the common animals found are lion, tiger, pig, deer and elephant.

These forests are further divided into:

- **Moist deciduous:** These are found in areas having rainfall between 200 and 100 cm. Teak is the most dominant species of this forest. Bamboos, sal, shisham, sandalwood, khair, kusum, arjun and mulberry are other commercially important species.
- **Dry deciduous:** These are found in areas having rainfall between 100 cm and 70 cm. There are open stretches, in which teak, sal, peepal and neem grow.

3. The Thorn Forests and Scrubs

- The natural vegetation consists of thorny trees and bushes.
- This type of vegetation is found in the north-western part of the country, including semi-arid areas of Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh and Haryana.
- Trees are scattered and have long roots penetrating deep into the soil to get moisture.
- The stems are moist to conserve water.
- Leaves are mostly thick and small to minimise evaporation.
- Acacias, palms, euphorbias and cacti are the main plant species.
- Common animals are rats, mice, rabbits, fox, wolf, tiger, lion, wild ass, horses and camels.

4. Montane Forests

- Montane forests are the forests which are found in the mountains.
- The wet temperate type of forests are found between a height of 1000 and 2000 metres.
- At high altitudes, generally, more than 3,600 metres above the sea level, temperate forests and grasslands give way to the Alpine vegetation.
- Alpine grasslands are used for grazing.
- At higher altitudes, mosses and lichens form part of tundra vegetation.
- The common animals found are Kashmir stag, spotted deer, wild sheep, jack rabbit, Tibetan antelope, yak, snow leopard, squirrels, shaggy horn wild ibex, bear and rare red panda, sheep and goats

5.Mangrove Forests

- Mangroves are trees that live along tropical coastlines, rooted in salty sediments, often underwater.
- The **mangrove tidal forests** are found in the areas of coasts influenced by tides. Mud and silt get accumulated on such coasts.
- **Dense mangroves** are the common varieties with roots of the plants submerged underwater.
- Sundari trees are found in Ganga-Brahmaputra delta and provide hard timber.
- Royal Bengal Tiger is a famous animal in these forests.

Video link:

<https://youtu.be/Vn0h1YthN4c>

<https://youtu.be/taJInrM74P0>

ASSIGNMENT

Very short answer type questions

1. Name two factors that cause huge diversity in the flora and fauna kingdom
2. What is biome?
3. Name two non flowering plants.
4. Name some of the commercially important trees that grow in the tropical evergreen rainforests.
5. Name one important tree each of the moist deciduous forests and the dry deciduous forests.
6. Name the dominant type of forest found in India.
7. Where are the sundari trees found?
8. In which regions are mangrove forests found?

Short answer type questions

1. Give a brief account of the vegetation and wildlife found in the mangrove forests.
2. "In mountain areas , there is change in natural vegetation due to decrease in temperature . Justify giving examples from different zones.
3. Distinguish between tropical evergreen and tropical deciduous forests.
4. The climate is one of the most important factors deciding the character and extent of vegetation. Explain.

Long Answer type questions

1. Name any 5 medicinal plants found in India and give their uses.
2. Natural vegetation zones differ with differences in relief and climatic conditions.Explain.

Activity: On an outline political map of India label the following

- Areas of evergreen forests
- Areas of dry deciduous forests
- Areas of mangrove forests

असाइनमेंट – 20
कक्षा 9

विषय – हिंदी पाठ्य सामग्री
(उपलब्धकर्ता मिस सुजाता परमार)

अग्निपथ कविता, कवि श्री हरिवंश राय 'बच्चन'

<https://youtu.be/F703qhHbZO4> दिए गए लिंक को ओपन करके अग्निपथ कविता का वीडियो देखें।

अग्निपथ कविता का सार- हरिवंश राय बच्चन की कविता अग्निपथ में कवि ने हमें यह संदेश दिया है कि जीवन संघर्ष का ही नाम है। और उन्होंने यह कहा है कि इस संघर्ष से घबराकर कभी थमना नहीं चाहिए, बल्कि कर्मठतापूर्वक आगे बढ़ते रहना चाहिए। कवि के अनुसार, हमें अपने जीवन में आने वाले संघर्षों का खुद ही सामना करना चाहिए। चाहे जितनी भी कठिनाइयाँ आएँ, हमें किसी से मदद नहीं माँगनी चाहिए। अगर हम किसी से मदद ले लेंगे, तो हम कमजोर पड़ जायेंगे और हम जीवन-रूपी संघर्ष को जीत नहीं पाएँगे। खुद के परिश्रम से सफलता प्राप्त करना ही इस कविता का प्रमुख लक्ष्य है।

अग्निपथ कविता का भावार्थ –

अग्निपथ! अग्निपथ! अग्निपथ!

वृक्ष हों भले खड़े,

हों घने, हों बड़े,

एक पत्र छाँह भी माँग मत, माँग मत, माँग मत!

अग्निपथ! अग्निपथ! अग्निपथ!

भावार्थ : हरिवंश राय बच्चन की कविता अग्निपथ की इन पंक्तियों में कवि हरिवंश राय बच्चन जी ने हमें यह शिक्षा दी है कि अपने जीवन में हमेशा कर्म करते रहना चाहिए। हमारे सामने चाहे जितनी भी कठिनाइयाँ क्यों ना आएँ, हमें कभी रुकना नहीं चाहिए। अपने कर्मपथ पर चलते हुए, अगर हमारे मित्र या संबंधी हमें सहायता देने आएँ, तो वह हमें कभी भी स्वीकार नहीं करनी चाहिए। अगर एक बार सहायता ले ली, तो हम कमजोर पड़ जायेंगे और अपने कर्मपथ पर नहीं चल पाएँगे।

इसीलिए हरिवंशराय बच्चन जी ने कहा है, जीवन की कड़ी धूप में चलते हुए, चाहे जितने भी घने वृक्ष आपके अग्निपथ में क्यों ना आएँ, आपको कभी भी उनकी छाँव का आसरा लेने के लिए रुकना नहीं चाहिए। आपको बस अपने लक्ष्य की तरफ बिना रुके चलते रहना चाहिए।

तू न थकेगा कभी!

तू न थमेगा कभी!

तू न मुड़ेगा कभी! कर शपथ, कर शपथ, कर शपथ!

अग्निपथ! अग्निपथ! अग्निपथ!

भावार्थ : अग्निपथ कविता की इन पंक्तियों में हरिवंशराय बच्चन जी ने कहा है कि मनुष्य को अपने कर्म की राह पर चलते हुए कभी नहीं थकना चाहिए। चाहे वह कितना ही परेशान, बेचैन क्यों ना हो जाए, पर उसे अपने कर्म करते रहने चाहिए। कभी भी कर्मपथ पर चलते-चलते थमना नहीं चाहिए, अर्थात् कभी अपने कर्मों को करते-करते रुकना नहीं चाहिए। आगे कवि कहते हैं कि मनुष्य को अपने जीवन में ये शपथ लेनी चाहिए कि वह कभी भी अपने कर्म के मार्ग से मुड़ेगा नहीं, चाहे उसके रास्ते कितने ही कठिन क्यों ना हों।

यह महान दृश्य है

चल रहा मनुष्य है

अश्रु-स्वेद-रक्त से लथपथ, लथपथ, लथपथ

अग्निपथ! अग्निपथ! अग्निपथ!

भावार्थ : जब मनुष्य अपने कर्म के रास्ते पर चलता है, तो उसे धूल, तेज़ धूप, आंधी रूपी सामाजिक समस्याओं का सामना करना पड़ता है। इन समस्याओं का सामना करते-करते मनुष्य पसीने, आंसू एवं खून से लथ-पथ होकर भी अपने कर्म के सच्चे रास्ते पर आगे बढ़ता ही रहता है। ऐसे मनुष्य को उसकी मंज़िल के रास्ते पर चलते हुए देखना एक अद्भुत अनुभव होता है, इसीलिए अग्निपथ कविता की उपर्युक्त पंक्तियों में कवि ने इसे एक महान दृश्य कहा है। उनके अनुसार कठिनाइयों का सामना कर बिना रुके सच्चे रास्ते पर चलते-चलते ही मनुष्य अपनी ज़िंदगी की मंज़िल को पा सकता है।

निम्नलिखित प्रश्नों के उत्तर दीजिए –

1. कवि ने 'अग्नि पथ' किसके प्रतीक स्वरूप प्रयोग किया है?
2. 'माँग मत', 'कर शपथ', 'लथपथ' इन शब्दों का बार-बार प्रयोग कर कवि क्या कहना चाहता है?
3. 'एक पत्र-छाह भी माँग मत' इस पंक्ति का आशय स्पष्ट कीजिए।

निम्नलिखित का भाव स्पष्ट कीजिए।

4. तू न थमेगा कभी

तू न मुड़ेगा कभी

5. चल रहा मनुष्य है

अश्रु-स्वेद-रक्त से लथपथ, लथपथ, लथपथ

6. इस कविता का मूलभाव क्या है? स्पष्ट कीजिए।

प्रश्न 7 सड़क किनारे लगे घने छायादार वृक्ष किसके प्रतीक हैं, उदाहरण सहित बताइए कि इनकी छाया हमें क्यों नहीं मांगनी चाहिए?

8. पूरी कविता का सार अपने शब्दों में लिखें।

लेखन कौशल गतिविधि

नारा लेखन(<https://youtu.be/oBgkijtfDRg>) दिए गए लिंक को ओपन करके देखें व नारा लेखन का प्रयास करें।

'पटाखा रहित दीवाली' हेतु तुकबंदी करते हुए 2 या 4 पंक्तियों का अर्थपूर्ण नारा लिखें।

LESSON PLAN (November)

Subject-History

Sub teacher-Poonam Pathak

Topic:-Chapter 3—**Nazism and the Rise of Hitler**

Sub Topic 3:The Nazi World Wide

Learning Objectives:-To make children aware about The Nazi World Wide

Methodology:-PPT, Video and word file

You tube link:-<https://www.youtube.com/watch?v=CeBYUvIVuAY>

Activity 1:- Make a PPT on the topic 'Nazism and the rise of the Hitler'

The Nazi World Wide

According to Nazi ideology, there was no equality between people, but only racial hierarchy. The Nazis quickly began to implement their dream of creating an exclusive racial community of pure Germans by physically eliminating all those who were considered undesirable. They wanted a society of pure and healthy Nordic Aryans. Jews, Gypsies, Blacks, Russian, Poles, even certain Germans, and abnormals were considered undesirable.

The other aspect of Hitler's ideology related to the geopolitical concept of Lebensraum, or living space. Jews were the worst sufferers in Nazi Germany. Hitler believed in pseudoscientific theories of a race which said that conversion was no solution to the Jewish problem. It had to be solved through their total elimination.

From 1933-1938 – the Nazis terrorized, pauperized and segregated the Jews, compelling them to leave the country.

The next phase, 1939-1945, aimed at concentrating them in certain areas and then killing them in gas chambers in Poland.

Assignment:-

1. What is the German Parliament known as ?
2. A camp where people were isolated and detained without due process of law, referred to as _____ .
3. Which Article of the Weimar Constitution gave the President the powers to impose emergency, suspend civil rights and rule by decree ?
4. Who offered the chancellorship to Hitler on 30 January 1933 ?
5. Which concept of Hitler's ideology revealed his desire for an extended empire ?
6. What was the ideology of the Nazis regarding the Jews ?

MATHEMATICS ASSIGNMENT

Q1. The diameter of a cone is 14cm and its slant height is 9cm. find the area of its curved surface.

Q2. Find the total surface area of a cone, if its slant height is 9m and the radius of its base is 12m.

Q3. The curved surface of a cylinder is equal to the curved surface of a cone. If the radius be the same, find the ratio of the height of the cylinder and slant height of the cone.

Q4. The surface area of a sphere is 5544cm^2 , find its diameter.

Q5. The dome of a building is in the form of a hemisphere. Its radius is 63dm. find the cost of painting it at the rate of Rs.2 per sq. m.

Q6. A sphere, a cylinder and a cone are of the same radius and same height. Find the ratio of their curved surfaces.

Q7. The radius and slant height of a cone are in the ratio of 4:7. If its curved surface area is 792cm^2 , find its radius.

Q8. How many meters of cloth 5m wide will be required to make a conical tent, the radius of whose base is 7m and whose height is 24m?

EAST POINT SCHOOL
CLASS -IX SUBJECT- PHYSICS
CHAPTER —WORK AND ENERGY

LINK- <https://youtu.be/ZDCeaRYhpj8>

1. A man is carrying the heavy luggage from one platform to the other of a Railway station but still according to the logics of science his work done is said to be zero. Can you opt out the correct reason?

- (a) The force is acting along the direction of displacement of luggage
- (b) The force is acting perpendicular to the direction of displacement of luggage
- (c) The force is acting opposite to the direction of displacement of luggage
- (d) None of these

Answer: (b) The force is acting perpendicular to the direction of displacement of luggage

2. When a body falls freely towards the earth, then its total energy

- (a) Decreases
- (b) Increases
- (c) First increases and then decreases
- (d) Remains constant

Answer: (d) Remains constant

3. When a body like earth is moving in a circular path the work done in that case is zero because:

- (a) Centripetal force acts in the direction of motion of the body
- (b) Centripetal force acts along the radius of circular path
- (c) Gravitational force acts along the radius of circular path
- (d) Centrifugal force acts perpendicular to the radius of circular path

Answer: (b) Centripetal force acts along the radius of circular path

4. A car is accelerated on a leveled road and attains a velocity 4 times of its initial velocity. In this process, the kinetic energy of the car

- (a) Becomes twice to that of the initial
- (b) Becomes four times to that of the initial
- (c) Remains the same
- (d) Becomes 16 times to that of the initial

Answer: (d) Becomes 16 times to that of the initial

5. The momentum of a bullet of mass 20 g fired from a gun is 10 kg m/s. The kinetic energy of this bullet in kJ will be:

- (a) 25
- (b) 2.5
- (c) 0.25
- (d) 5

Answer: (b) 2.5

6. Which one of the following is not the unit of energy?

- (a) Kilowatt
- (b) Kilowatt hour
- (c) Joule
- (d) Newton meter

Answer: (a) Kilowatt

7. The form of energy possessed by a flying bird is:

- (a) Kinetic energy

- (b) Potential energy
- (c) Both kinetic and potential energy
- (d) Can't say

Answer: (c) Both kinetic and potential energy

8. In the dams water is stored in the high reservoirs and then made to fall down. This falling water then rotates the turbines to generate electricity. In this energy conversion process can you tell the initial and final energies respectively?

- (a) Kinetic energy and electrical energy
- (b) Potential energy and kinetic energy
- (c) Potential energy and electrical energy
- (d) Kinetic energy and potential energy

Answer: (a) Kinetic energy and electrical energy

9. A man of mass 50 kg jumps to a height of 1 m. His potential energy at the highest point is($g = 10 \text{ m/s}^2$):

- (a) 50 J
- (b) 500 J
- (c) 5 J
- (d) 5000 J

Answer: (b) 500 J

10. The type of energy possessed by a simple pendulum, when it is at the mean position is:

- (a) Kinetic energy
- (b) Potential energy
- (c) Kinetic + Potential energy

(d) Sound energy

Answer: (a) Kinetic energy

11. A body is falling from a height h . After it has fallen to a height of $h/2$, it will possess:

(a) Only kinetic energy

(b) Half kinetic and half potential energy

(c) Only potential energy

(d) More kinetic and less potential energy

Answer: (d) More kinetic and less potential energy

12. Two objects of masses 1×10^{-3} kg and 4×10^{-3} kg have equal momentum. What is the ratio of their kinetic energies?

(a) 2:1

(b) 4:1

(c) 1:4

(d) 1:2

Answer: (b) 4:1

13. The work done on an object does not depend upon the:

(a) Angle between force and displacement

(b) Force applied

(c) Initial velocity of the object

(d) Displacement

Answer: (c) Initial velocity of the object

14. An iron sphere of mass 10 kg has the same diameter as an aluminium sphere of mass 3.5 kg. Both spheres are dropped simultaneously from a tower. When they are 10 m above the ground, they have the same:

- (a) Potential energy
- (b) Momenta
- (c) Acceleration
- (d) Kinetic energy

Answer: (c) Acceleration

15. A microphone converts:

- (a) Sound energy into mechanical energy in stereo system
- (b) Sound energy into electrical energy in public address system
- (c) Electrical energy into sound energy in ordinary telephone
- (d) Microwave energy into sound energy in a mobile phone

Answer: (b) Sound energy into electrical energy in public address system

16. Which of the following energy change involves frictional force?

- i. Potential energy to sound energy
- ii. Chemical energy to heat energy
- iii. Kinetic energy to heat energy
- iv. Chemical energy to heat energy

Choose the correct option among the following:

- (a) Both (i) and (ii)
- (b) Only (iv)

(c) Both (ii) and (iii)

(d) Only (iii)

Answer: (d) Only (iii)

Activity- Calculate the work done if you change the velocity of your cycle from 10m/s to 20m/s. Total mass of cycle and you is 100 kg.

POLITICAL SCIENCE

Q1 Explain the composition of council of ministers.

Q2 What is cabinet secretariat?

Q3 Discuss the powers of the Prime Minister.

Q4 Define a coalition government.

Q5 Discuss the functions of Parliament

Q6 Discuss the functions of the head of the state.

<https://youtu.be/yXmK2vZsFEk>

SANSKRIT

1. प्रकृतिः समेषां प्राणानां संरक्षणाय यत्नते। इयं सर्वान् पुष्पाति विविधैः प्रकारैः, सुखसाधनेः च तर्पयति। पुष्पिणी, जलप, तैजः, वायुः अकाशः च अस्याः प्रमुखानि तत्त्वानि। तान्येव मितित्वा पृथक्त्वा वाऽऽत्माकं पर्यावरणं रचयन्ति। अत्रियते परितः समन्तात् लोकाः अनेन इति पर्यावरणम्। यथा अजातशिशुः मातृगर्भे सुरक्षितः तिष्ठति तथैव मानवः पर्यावरणकुक्षी। परिकृतं प्रदूषणरहितं च पर्यावरणम् अस्मभ्यं सांसारिकं जीवनसुखं, सद्दिचारं, सत्यसङ्कल्पं भाइतिकसामग्रीञ्च प्रददाति। प्रकृतिकोपैः आतङ्कितो जनः किं कर्तुं प्रभवति? जलप्लावने, अग्निभये, भूकम्पे, वात्याचक्रे, उल्कापातादिभिश्च सन्तप्तस्य मानवस्य क्व मङ्गलम्?

I. एकपदेन उत्तरत—
(i) प्रकृतिः केषाम् संरक्षणाय यत्नते? (ii) का विविधैः प्रकारैः सर्वान् पुष्पाति तर्पयति च?

II. पूर्णवाक्येन उत्तरत—
(i) प्रकृतिः कथं रक्षणं करोति? (ii) प्रकृतिकोपैः जनः कथम् आतङ्कितः भवति?

III. भाषिककार्यम्—
(i) 'इयं सर्वान् पुष्पाति।' अत्र क्रियापदं किं प्रयुक्तम्?
(ii) 'शुद्धम्' इति पदस्य पर्यायपदं गद्यांशे किम् प्रयुक्तम्?
(iii) 'प्रददाति' इति क्रियापदस्य कर्तृपदं किम्?
(iv) 'कुचिचारम्' इति पदस्य विलोमपदं गद्यांशे किम्?

2. अत एव अस्माभिः प्रकृतिः रक्षणीया। तेन च पर्यावरणं रक्षितं भविष्यति। प्राचीनकाले लोकमङ्गलशास्त्रिनः ऋषयो यने निवसन्ति स्म। यतो हि यने एव सुरक्षितं पर्यावरणमुपलभ्यते स्म। तत्र विविधा विहगाः कलकृजिभोजनसायनं ददति। सरितो गिरिनिरंशय अमृतस्यादु निर्मलं जलं प्रयच्छन्ति। वृक्षा लताश्च फलानि पुष्पाणि इन्धनकाष्ठानि च बाह्येन समुपहरन्ति। शीतलमन्दसुगन्धवनपवना औषधकल्पं प्राणवायुं वितरन्ति।

I. एकपदेन उत्तरत—
(i) प्रकृतिः केन रक्षणीया? (ii) के श्रेयसायनं ददति?

II. पूर्णवाक्येन उत्तरत—
(i) प्राचीनकाले कीदृशाः ऋषयः यने निवसन्ति स्म? (ii) प्राणवायुं के वितरन्ति?

III. भाषिककार्यम्—
(i) 'आद्युनिककाले' इति पदस्य पर्यायपदं गद्यांशे किम्? (ii) 'विहगाः' अत्र विशेषणपदं किम्?
(iii) 'ऋषयो यने निवसन्ति स्म' इति कर्तृपदस्य क्रियापदं किम्?

VIDEO LINK: <https://youtu.be/c-eVgDjgliU>