This is the output of noun chunks(N) and verbs identified after applying algorithm.

Sample Example -

[["There are six main nutrients in our food : Carbohydrates, fats, proteins, fibre, vitamins and minerals.", ["six main nutrients", "our food", "Carbohydrates", "fats", "proteins", "fibre", "vitamins", "minerals"], ["are"]],

N 9,8 V 1 ( noun present in a sentence = 9, and noun adentified by machine = 8

verbs present in a sentence = 1, and verbs identified by machine = 1)

N : There – not identified.

["These nutrients are **present** in the different food items we eat in differing proportions.", ["These nutrients", "the different food items", "we", "differing proportions"], ["are", "eat", "differing"]],

N 4 , V 3, 2

(noun present in a sentence = 4, and noun identified by machine = 4

verbs present in a sentence = 3, and verbs identified by machine = 2 )

["Let us learn more about some of them.", ["us", "some", "them"], ["Let", "learn"]], ["Our main need is of energy.",

["Our main need", "energy"], ["is"]], ["It is fulfilled by carbohydrates.", ["It", "carbohydrates"], ["is fulfilled"]], ["Hence, our diet includes a large proportion of cereals in the form of rice, chapatti or roti, bhakri and bread which contain carbohydrates.", ["our diet", "a large proportion", "cereals", "the form", "rice", "chapatti", "roti", "bhakri", "bread", "which", "carbohydrates"], ["includes"]], ["Cereals are our staple food.", ["Cereals", "our staple food"], ["are"]], ["Proteins We need proteins for the purposes of growth, repairing the wear and tear of the body and for other life processes.", ["We", "proteins", "the purposes", "growth", "the wear", "tear", "the body", "other life processes"], ["need", "repairing"]], ["We get proteins from the sprouts, milk and milk products, meat and eggs in our food.", ["We", "proteins", "the sprouts", "milk", "milk", "products", "meat", "eggs", "our food"], ["get"]], ["Fats : Some part of our energy requirement is also fulfilled by fatty foods such as oil, ghee and butter.", ["Some part", "our energy requirement", "fatty foods", "oil", "ghee", "butter"], ["is also fulfilled"]], ["We get energy in the form of heat from the food we eat.", ["We", "energy", "the form", "heat", "the food", "we"], ["get", "eat"]], ["Heat is measured in kilocalories.", ["Heat", "kilocalories"], ["is measured"]], ["Hence, the energy in food items is also measured in kilocalories (Calories).", ["the energy", "food items", "kilocalories", "Calories"], ["is also measured"]], ["Minerals and vitamins To improve the body\u2019s resistance to disease and for other life processes the body needs vitamins, minerals and fibre in the diet.", ["Minerals", "vitamins", "the body\u2019s resistance", "disease", "other life", "the body", "vitamins", "minerals", "fibre", "the diet"], ["improve", "s", "disease", "processes", "needs"]], ["We obtain these nutrients mainly from vegetables and fruits.", ["We", "these nutrients", "vegetables", "fruits"], ["obtain"]], ["We require vitamins and minerals in small quantities, but their deficiency can lead to various diseases.", ["We", "vitamins", "minerals", "small quantities", "their deficiency", "various diseases"], ["require", "can lead"]], ["Let us learn more about them.", ["us", "them"], ["Let", "learn"]], ["The body needs several inorganic substances.", ["The body", "several inorganic substances"], ["needs"]], ["They are called minerals.", ["They", "minerals"], ["are called"]], ["The table below gives examples of some minerals and provides information about their functions in the body, the various sources of the minerals as well as the diseases caused by their deficiency.", ["The table", "examples", "some minerals", "information", "their functions", "the body", "the various sources", "the minerals", "well", "the diseases", "their deficiency"], ["gives", "provides", "caused"]], ["Calcium and phosphorous is a mineral which strengthen bones and teeth.", ["Calcium", "a mineral", "which", "bones", "teeth"], ["is", "strengthen"]], ["We need proteins for the purposes of growth, repairing the wear and tear of the body and for other life processes.", ["We", "proteins", "the purposes", "growth", "the wear", "tear", "the body", "other life processes"], ["need", "repairing"]], ["We get proteins from the sprouts, milk and milk products, meat and eggs in our food.", ["We", "proteins", "the sprouts", "milk", "milk", "products", "meat", "eggs", "our food"], ["get"]], ["To improve the body\u2019s resistance to disease and for other life processes the bodyneeds vitamins, minerals and fibre in the diet.", ["the body\u2019s resistance", "disease", "other life", "the bodyneeds vitamins", "minerals", "fibre", "the diet"], ["improve", "s", "disease", "processes"]], ["We obtain these nutrients mainly from vegetables and fruits.", ["We", "these nutrients", "vegetables", "fruits"], ["obtain"]], ["Our main need is of energy.", ["Our main need", "energy"], ["is"]], ["It is fulfilled by carbohydrates.", ["It", "carbohydrates"], ["is fulfilled"]], ["Hence, our diet includes a large proportion of cereals in the form of rice, chapatti or roti, bhakri and bread which contain carbohydrates.", ["our diet", "a large proportion", "cereals", "the form", "rice", "chapatti", "roti", "bhakri", "bread", "which", "carbohydrates"], ["includes"]], ["Cereals are our staple food.", ["Cereals", "our staple food"], ["are"]], ["Starch turns blackish blue when it comes in contact with iodine.", ["Starch", "blackish blue", "it", "contact", "iodine"], ["turns", "comes"]], ["So we can infer that there is starch in the potato.", ["we", "starch", "the potato"], ["can infer", "is"]], ["Sago and sweet potato also contain starch.", ["Sago", "sweet potato", "starch"], ["contain"]], ["Cereals like jowar, bajra, wheat, rice contain a lot of starch.", ["Cereals", "jowar", "bajra", "wheat", "rice", "a lot", "starch"], ["contain"]], ["We obtain flour from these grains.", ["We", "flour", "these grains"], ["obtain flour"]], ["These grains form our staple diet.", ["These grains", "our staple diet"], ["form"]], ["We get energy from starchy foods.", ["We", "energy", "starchy foods"], ["get"]], ["Our body uses this energy for different kind.", ["Our body", "this energy", "different kind"], ["uses"]], ["Nutrients and foodstuffs.", ["Nutrients", "foodstuffs"], []], ["There are six main nutrients in our food : Carbohydrates, fats, proteins, fibre, vitamins and minerals.", ["six main nutrients", "our food", "Carbohydrates", "fats", "proteins", "fibre", "vitamins", "minerals"], ["are"]], ["These nutrients are present in the different food items we eat in differing proportions.", ["These nutrients", "the different food items", "we", "differing proportions"], ["are", "eat", "differing"]], ["Let us learn more about some of them.", ["us", "some", "them"], ["Let", "learn"]], ["Energy-giving nutrients - Carbohydrates 7.1 : Foodstuffs 7.2 : Cereals", ["Energy-giving nutrients", "Carbohydrates", "Foodstuffs", "Cereals"], ["Carbohydrates"]], ["In living things, the process of taking in food and water and using it for growth and other purposes is called \u2018nutrition\u2019, and the constituents of food useful for these purposes are called \u2018nutrients\u2019.", ["living things", "the process", "food", "water", "it", "growth", "other purposes", "\u2018nutrition", "the constituents", "food", "these purposes", "\u2018nutrients"], ["taking", "using", "is called", "are called", "\u2019"]], ["Our main need is of energy.", ["Our main need", "energy"], ["is"]], ["It is fulfilled by carbohydrates.", ["It", "carbohydrates"], ["is fulfilled"]], ["Hence, our diet includes a large proportion of cereals in the form of rice, chapatti or roti, bhakri and bread which contain carbohydrates.", ["our diet", "a large proportion", "cereals", "the form", "rice", "chapatti", "roti", "bhakri", "bread", "which", "carbohydrates"], ["includes"]], ["Cereals are our staple food.", ["Cereals", "our staple food"], ["are"]], ["Food-stuffs that taste sweet contain different kinds of sugars.", ["Food-stuffs", "that", "different kinds", "sugars"], ["taste"]], ["For example , we can get jiggery and table sugar from sugarcane because it contains a sugar called sucrose.", ["example", "we", "jiggery", "table sugar", "sugarcane", "it", "a sugar", "sucrose"], ["can get", "contains", "called"]], ["Ripe fruits like mango, banana, chickoo as also honey and milk also contain various kinds of sugars.", ["Ripe fruits", "mango, banana, chickoo", "honey", "milk", "various kinds", "sugars"], ["contain"]], ["They, too, give us energy.", ["They", "us", "energy"], ["give"]], ["Plants make their own food in sunlight.", ["Plants", "their own food", "sunlight"], ["make"]], ["Plants produce food from water, nutrients in the soil and the carbon dioxide present in the air.", ["Plants", "food", "water", "nutrients", "the soil", "the carbon dioxide", "the air"], ["produce"]], ["This process takes place in the leaves of plants.", ["This process", "place", "the leaves", "plants"], ["takes"]], ["It is brought about in the presence of sunlight, with the help of the chlorophyll in the leaves.", ["It", "the presence", "sunlight", "the help", "the chlorophyll", "the leaves"], ["is brought about"]], ["This process of food production is called photosynthesis.", ["This process", "food production", "photosynthesis"], ["is called"]], ["During this process, plants give out oxygen.", ["this process", "plants", "oxygen"], ["give"]], ["Plants appear mainly green in colour due to the chlorophyll in them.", ["Plants", "colour", "the chlorophyll", "them"], ["appear mainly"]], ["Living things are made of small units called cells.", ["Living things", "small units", "cells"], ["Living", "are made", "called"]], ["All the actions and processes in the bodies of living things are brought about with the help of these microscopic cells.", ["All the actions", "processes", "the bodies", "living things", "the help", "these microscopic cells"], ["are brought"]], ["Some living things are made of a single cell.", ["Some living things", "a single cell"], ["are made"]], ["These are called unicellular organisms.", ["These", "unicellular organisms"], ["are called"]], ["On the other hand, the living things that are made of many cells are called multicellular organisms.", ["the other hand", "the living things", "that", "many cells", "multicellular organisms"], ["are made", "are called"]], ["The amoeba and some other microorganisms are unicellular while man, cow, mouse, cockroach, elephants, banyan tree, the onion plant, etc. are all multicellular organisms.", ["The amoeba", "some other microorganisms", "man", "cow", "mouse", "cockroach", "elephants", "banyan tree", "the onion plant", "multicellular organisms"], ["are", "are"]], ["All the characteristics of living things are seen in every cell of a living thing, whether it is unicellular or multicellular.", ["All the characteristics", "living things", "every cell", "a living thing", "it"], ["are seen", "is"]], ["A cellular structure Do you know?", ["A cellular structure", "you"], ["know"]], ["The lifespan of the giant turtle found on the Galapagos Island in South America is about 170 years.", ["The lifespan", "the giant turtle", "the Galapagos Island", "South America", "about 170 years"], ["found", "is"]], ["On the other hand, the lifespan of the mayfly ranges from 1 hour to 24 hours.", ["the other hand", "the lifespan", "the mayfly", "1 hour", "24 hours"], ["ranges"]], ["Living things are made of small units called cells.", ["Living things", "small units", "cells"], ["Living", "are made", "called"]], ["All the actions and processes in the bodies of living things are brought about with the help of these microscopic cells.", ["All the actions", "processes", "the bodies", "living things", "the help", "these microscopic cells"], ["are brought"]], ["Some living things are made of a single cell.", ["Some living things", "a single cell"], ["are made"]], ["These are called unicellular organisms.", ["These", "unicellular organisms"], ["are called"]], ["On the other hand, the living things that are made of many cells are called multicellular organisms.", ["the other hand", "the living things", "that", "many cells", "multicellular organisms"], ["are made", "are called"]], ["The amoeba and some other microorganisms are unicellular while man, cow, mouse, cockroach, elephants, banyan tree, the onion plant, etc. are all multicellular organisms.", ["The amoeba", "some other microorganisms", "man", "cow", "mouse", "cockroach", "elephants", "banyan tree", "the onion plant", "multicellular organisms"], ["are", "are"]], ["All the characteristics of living things are seen in every cell of a living thing, whether it is unicellular or multicellular.", ["All the characteristics", "living things", "every cell", "a living thing", "it"], ["are seen", "is"]], ["Waste substances are formed during the many processes that take place in the bodies of animals.", ["Waste substances", "the many processes", "that", "place", "the bodies", "animals"], ["are formed", "processes", "take"]], ["These are called excreta and the process of eliminating them from the body is called excretion.", ["These", "excreta", "the process", "them", "the body"], ["are called", "eliminating", "is called"]], ["Animals have specific organs for excretion.", ["Animals", "specific organs", "excretion"], ["have"]], ["Plants, too, excrete.", ["Plants"], []], ["For example, some plants shed leaves in a specific season.", ["example", "some plants", "leaves", "a specific season"], ["shed"]], ["Waste substances stored in the leaves of plants are shed along with the leaves.", ["Waste substances", "the leaves", "plants", "the leaves"], ["stored", "are shed"]], ["Reproduction Living things produce other living things like themselves.", ["Reproduction Living things", "other living things", "themselves"], ["Living", "produce"]], ["Some animals give birth to their young ones.", ["Some animals", "birth", "their young ones"], ["give"]], ["Some lay eggs.", ["Some", "eggs"], []], ["Their young ones hatch out of the eggs.", ["Their young ones", "the eggs"], ["hatch"]], ["New plants are produced from the seeds, stems or leaves of plants.", ["New plants", "the seeds", "leaves", "plants"], ["are produced", "stems"]], ["The process by which a living thing generates a new living thing like itself is called reproduction or procreation.", ["The process", "which", "a living thing", "a new living thing", "itself", "reproduction", "procreation"], ["generates", "is called"]], ["At a certain stage of life, living things become capable of reproduction.", ["a certain stage", "life", "living things", "reproduction"], ["living", "become"]], ["Why have so many types of plants and animals been able to survive on the earth even today ?.", ["so many types", "plants", "animals", "the earth"], ["have so", "been", "survive"]], ["A mare and her foal Reproduction is a characteristic of living things.", ["A mare", "her foal Reproduction", "a characteristic", "living things"], ["is"]], ["A definite lifespan.", ["A definite lifespan"], []], ["At a certain stage of life, living things become capable of reproduction.", ["a certain stage", "life", "living things", "reproduction"], ["living", "become"]], ["Later on in life reproduction stage, their organs become weak and still later, their life comes to an end.", ["life reproduction stage", "their organs", "their life", "an end"], ["become", "comes"]], ["In other words, living things die.", ["other words", "living things"], ["living"]], ["The lifespans of different animals and plants are different.", ["The lifespans", "different animals", "plants"], ["are"]], ["For example, the lifespan of the dog is about 12 to 18 years, while the ostrich lives for 50 years.", ["example", "the lifespan", "the dog", "about 12 to 18 years", "the ostrich", "50 years"], ["is about", "lives"]], ["You may have wondered what exactly the living things are, how they came into being, a We have learnt that producing another living thing like oneself is called reproduction.", ["You", "what", "the living things", "they", "being", "We", "another living thing", "oneself", "reproduction"], ["may have wondered", "are", "came", "being", "have learnt", "producing", "living", "is called"]], ["A hen lays eggs and hatches them.", ["A hen", "eggs", "them"], ["lays"]], ["After a few days, the young chicks hatch out of the eggs.", ["a few days", "the young chicks", "the eggs"], ["hatch"]], ["A cow gives birth to a calf.", ["A cow", "birth", "a calf"], ["gives"]], ["Before that, the calf grows within the cow\u2019s body.", ["that", "the calf", "the cow\u2019s body"], ["grows"]], ["According to the mode of reproduction, animals are classified into two types, namely, oviparous animals which lay eggs and viviparous animals which give birth to their young ones.", ["the mode", "reproduction", "animals", "two types", "namely, oviparous animals", "which", "eggs", "viviparous animals", "which", "birth", "their young ones"], ["According", "are classified", "lay", "give"]],

["Animals with a vertebral column and those without it form two groups known as the vertebrates and invertebrates, respectively.", ["Animals", "a vertebral column", "those", "it", "two groups", "the vertebrates", "invertebrates"], ["form", "known"]],

["Snakes, birds, fish and kangaroos as also humans are vertebrate animals.", ["Snakes", "birds", "fish", "kangaroos", "humans", "vertebrate animals"], ["are"]],

["Animals such as snails, cockroaches, earthworms do not have a vertebral column and therefore they are invertebrate animals.", ["Animals", "snails", "cockroaches", "earthworms", "a vertebral column", "they", "invertebrate animals"], ["do not have", "are"]],

["2. Name some animals which lay eggs and others which give birth to their young ones.", ["some animals", "which", "eggs", "others", "which", "birth", "their young ones"], ["Name", "lay", "give"]],

["We have learnt that producing another living thing like oneself is called reproduction.", ["We", "another living thing", "oneself", "reproduction"], ["have learnt", "producing", "living", "is called"]],

["A hen lays eggs and **hatches** them.", ["A hen", "eggs", "them"], ["lays"]],

["After a few days, the young chicks hatch out of the eggs.", ["a few days", "the young chicks", "the eggs"], ["hatch"]],

["A cow gives birth to a calf.", ["A cow", "birth", "a calf"], ["gives"]],

["Before that, the calf grows within the cow’s body.", ["that", "the calf", "the cow\u2019s body"], ["grows"]],

["According to the mode of reproduction, animals are classified into two types, namely, oviparous animals which lay eggs and viviparous animals which give birth to their young ones.", ["the mode", "reproduction", "animals", "two types", "namely, oviparous animals", "which", "eggs", "viviparous animals", "which", "birth", "their young ones"], ["According", "are classified", "lay", "give"]],

[" Some plants grow close to the ground.", ["Some plants", "the ground"], ["grow close"]],

["They give out branches very close to the ground.", ["They", "branches", "the ground"], ["give"]],

["They are shorter and smaller than trees, but they have a thick and hard stem.", ["They", "trees", "they", "a thick and hard stem"], ["are", "have"]],

["The oleander, hibiscus, lantana, koranti and **rose** are shrubs that may grow up to two to three metres.", ["The oleander", "hibiscus", "lantana", "koranti", "shrubs", "that", "two to three metres"], [**"rose** are", "may grow"]],

["Herbs grow 1 to 1.5 **metres** tall.", ["Herbs"], ["grow"]],

["The stems of herbs are **green** and quite flexible as compared to those of trees and bushes.", ["The stems", "herbs", "those", "trees", "bushes"], ["are", "compared"]],

["Herbs may live for a few months or up to two years.", ["Herbs", "a few months", "up to two years"], ["may live"]],

["Have you seen vines like the pumpkin, the railroad creeper,kavali, watermelon or the grapevine", ["you", "vines", "the pumpkin", "the railroad creeper", "kavali", "watermelon", "the grapevine"], ["Have", "seen"]],

["The lifecycle of plants like jowar, sunflower is completed in one year.", ["The lifecycle", "plants", "jowar", "sunflower", "one year"], ["is completed"]],

["These plants are called annuals.", ["These plants", "annuals"], ["are called"]],

["The lifecycle of plants like the carrot, beetroot is of two years.", ["The lifecycle", "plants", "the carrot", "beetroot", "two years"], ["is"]],

["They are called biennials.", ["They", "biennials"], ["are called"]],

["Shrubs like the hibiscus and oleander and trees like mango and gulmohur live for several years and **bear** flowers and fruit.", ["Shrubs", "the hibiscus", "oleander", "trees", "mango", "gulmohur", "several years", "flowers", "fruit"], ["live"]],

["They are called perennials.", ["They", "perennials"], ["are called"]],

["According to the period of their lifecycle, plants are classified as annuals, biennials, perennials.", ["the period", "their lifecycle", "plants", "annuals", "biennials", "perennials"], ["According", "are classified"]],

["Some plants grow tall.", ["Some plants"], ["grow"]],

["Their stem, or trunk, is hard and strong.", ["Their stem", "trunk"], ["is"]],

["They have branches at some height above the ground.", ["They", "branches", "some height", "the ground"], ["have"]],

["They bear flowers and fruit for many years.", ["They", "flowers", "fruit", "many years"], ["bear"]],

["Such plants are called trees.", ["Such plants", "trees"], ["are called"]],

["Trees are tall, big and perennial, i.e., they live for many years.", ["Trees", "they", "many years"], ["are", "live"]],

["Even when a piece of a metal is heated at one place, the whole of it becomes hot.", ["a piece", "a metal", "one place", "the whole", "it"], ["is heated", "becomes"]],

["It shows that metals allow heat to flow through them.", ["It", "metals", "heat", "them"], ["shows", "allow", "flow"]],

["This property is called thermal conductivity.", ["This property", "thermal conductivity"], ["is called"]],

["Delicate articles, perishable fruits, etc. require packing.", ["Delicate articles", "perishable fruits", "packing"], ["require"]],

["To pack TV sets, refrigerators, etc. big cartons and thermocol are being used.", ["TV sets", "refrigerators", ". big cartons", "thermocol"], ["pack", "are being used"]], ["All these are man-made substances.", ["All these", "man-made substances"], ["are"]], ["These substances are water proof or water resistant, lightweight and easy to transport.", ["These substances", "water proof"], ["are", "transport"]], ["That is why, they are being used increasingly.", ["That", "they"], ["is", "are being used increasingly"]], ["New Topic biodiversity in evaluation Every living thing gets its food from the environment.", ["New Topic biodiversity", "evaluation", "Every living thing", "its food", "the environment"], ["gets"]], ["Many animals in the environment eat only plants.", ["Many animals", "the environment", "only plants"], []], ["Other animals eat the animals that live on plants.", ["Other animals", "the animals", "that", "plants"], ["eat", "live"]], ["But plants make their own food in the presence of sunlight using water and the carbon dioxide from the air.", ["plants", "their own food", "the presence", "sunlight", "water", "the carbon dioxide", "the air"], ["make", "using"]], ["It means that plants are the main support of every food chain.", ["It", "plants", "the main support", "every food chain"], ["means", "are"]], ["Every living thing gets its food from the environment.", ["Every living thing", "its food", "the environment"], ["gets"]], ["Many animals in the environment eat only plants.", ["Many animals", "the environment", "only plants"], []], ["Other animals eat the animals that live on plants.", ["Other animals", "the animals", "that", "plants"], ["eat", "live"]], ["But plants make their own food in the presence of sunlight using water and the carbon dioxide from the air.", ["plants", "their own food", "the presence", "sunlight", "water", "the carbon dioxide", "the air"], ["make", "using"]], ["It means that plants are the main support of every food chain.", ["It", "plants", "the main support", "every food chain"], ["means", "are"]], ["Ball and socket joint : In this type of joint, the bones can move in two or more directions - in a 3600 angle.", ["Ball", "this type", "joint", "the bones", "two or more directions", "a 3600 angle"], ["can move"]], ["Examples : shoulder and hip joints.", ["Examples", "shoulder", "hip joints"], []], ["The skull is formed by the bones of the head and face.", ["The skull", "the bones", "the head", "face"], ["is formed"]], ["The bones of the skull are flat and strong.", ["The bones", "the skull"], ["are"]], ["There are altogether 22 bones in the skull, 8 in the head and 14 in the face.", ["22 bones", "the skull", "the head", "the face"], ["are altogether"]], ["Except for the lower jaw, none of the bones of the skull can move.", ["the lower jaw", "none", "the bones", "the skull"], ["can move"]], ["The spine is formed by padlock-shaped bones placed straight one above the other.", ["The spine", "padlock-shaped bones"], ["is formed", "placed"]], ["There are altogether 33 bones in the spine, each called a vertebra.", ["33 bones", "the spine", "a vertebra"], ["are altogether", "called"]], ["These bones are arranged one above the other flexibly.", ["These bones"], ["are arranged"]], ["The spine protects the spinal cord that originates from the brain.", ["The spine", "the spinal cord", "that", "the brain"], ["protects", "originates"]], ["The germs of diseases of the intestines like typhoid, cholera, diarrhoea as also of jaundice, are present in the faeces of the affected person.", ["The germs", "diseases", "the intestines", "typhoid", "cholera", "diarrhoea", "jaundice", "the faeces", "the affected person"], ["are"]], ["If the faeces get mixed with water the germs in it also enter the water.", ["the faeces", "water", "the germs", "it", "the water"], ["get", "enter"]], ["If another person drinks water which has been contaminated by these germs, they enter his intestines too, and that person can get the disease.", ["another person", "water", "which", "these germs", "they", "his intestines", "that person", "the disease"], ["has been contaminated", "enter", "can get"]], ["To prevent the spread of disease in this manner, it is best to avoid washing clothes and bathing in the water sources or defecating on the banks of the water, etc.", ["the spread", "disease", "this manner", "it", "washing clothes", "the water sources", "the banks", "the water"], ["prevent", "is", "avoid washing", "bathing", "defecating"]], ["Germs of diseases like the flu or conjunctivitis spread quickly through the air.", ["Germs", "diseases", "the flu", "conjunctivitis", "the air"], []], ["So, many people can get such diseases all at one time.", ["many people", "such diseases", "one time"], ["can get"]], ["If the water of a common source is contaminated by germs of a disease like cholera, then there is the danger of all those who drink that water getting the disease.", ["the water", "a common source", "germs", "a disease", "cholera", "the danger", "all those", "who", "that water", "the disease"], ["is contaminated", "is", "drink", "getting"]], ["If, at some place, mosquitoes breed in large numbers then many people there can get malaria.", ["some place", "mosquitoes", "large numbers", "many people"], ["breed", "can get"]], ["When disease producing microorganisms enter our body, the body resists the disease or fights the germs.", ["microorganisms", "our body", "the body", "the disease", "the germs"], ["producing", "resists", "fights"]], ["That is why, many times we do not get a disease even if germs enter our body.", ["That", "we", "a disease", "germs", "our body"], ["is", "do not get", "enter"]], ["Another way to prevent disease is vaccination.", ["Another way", "disease", "vaccination"], ["prevent", "is"]], ["Our body develops resistance to a particular disease due to vaccination.", ["Our body", "resistance", "a particular disease", "vaccination"], ["develops"]], ["The process by which the seeds are scattered away from the mother plants is called dispersal .", ["The process", "which", "the seeds", "the mother plants", "dispersal"], ["are scattered away", "is called"]], ["Nature has its own ways of dispersal of seeds.", ["Nature", "its own ways", "dispersal", "seeds"], ["has"]], ["Dispersal by wind \u2013 Seeds of certain plants are very light and have wings hair on them .", ["wind", "Seeds", "certain plants", "wings hair", "them"], ["are very", "have", "hair"]], ["These seeds are easily carried away by wind.", ["These seeds", "wind"], ["are easily carried"]], ["Sycamore Plants has winged seeds that are carried away by wind.", ["Sycamore Plants", "seeds", "that", "wind"], ["has winged", "are carried away"]], ["Dandelion Seeds have hair that act like a parachute.", ["Dandelion Seeds", "hair", "that", "a parachute"], ["have hair"]], ["Wind carries these seeds far away parent plants.", ["Wind", "these seeds", "parent plants"], ["carries"]], ["The fluff around the cotton seeds helps to float away with the wind.", ["The fluff", "the cotton seeds", "the wind"], ["helps", "float away"]], ["Dispersal by Animals \u2013 Animals & human beings eat some fruits & throw away the seeds, which grow into new plants.", ["Dispersal", "Animals", "Animals", "human beings", "some fruits", "the seeds", "which", "new plants"], ["eat", "throw", "grow"]], ["Certain seeds have hooks, stiff hairs or spines which help in their dispersal.", ["Certain seeds", "stiff hairs", "spines", "which", "their dispersal"], ["have hooks", "help"]], ["Some seeds have spins or hooks.", ["Some seeds", "spins", "hooks"], ["have"]], ["These seeds stick to the body of animals and birds and are carried away from the parent plants.", ["These seeds", "the body", "animals", "birds", "the parent plants"], ["stick", "are carried away"]], ["Birds and animals also eat fruits seeds pass through their digestive system undigested and are dispersed to other areas.", ["Birds", "animals", "fruits seeds", "their digestive system", "other areas"], ["eat", "pass", "are dispersed"]], ["Squirrels bury seeds and nuts for eating them during winter.", ["Squirrels", "seeds", "nuts", "them", "winter"], ["eating"]], ["Sometimes squirrel forget where they had bury seeds.", ["squirrel", "they", "bury seeds"], ["had"]], ["These seeds often germinate and grow into new plants.", ["These seeds", "new plants"], ["germinate", "grow"]], ["Dispersal by water \u2013 seeds of some plants such as lotus and coconut are spongy or have fibrous covering which help them to float on water.", ["water", "some plants", "lotus", "coconut", "fibrous covering", "which", "them", "water"], ["are spongy", "have", "covering", "help", "float"]], ["Water transports these seeds from one place to another.", ["Water", "these seeds", "one place", "another"], ["transports"]], ["Coconuts can travel several thousand kilometers across oceans.", ["Coconuts", "oceans"], ["can travel"]], ["the coconut palms on south sea islands grew from coconuts carried there by ocean currents.", ["the coconut palms", "south sea islands", "coconuts", "ocean currents"], ["grew", "carried"]], ["Dispersal by Explosion \u2013 Fruits of certain plants such as poppy, pea, beans burst open when they are ripe, scattering the seeds in all directions.", ["Explosion", "certain plants", "pea", "beans", "they", "the seeds", "all directions"], ["burst", "are", "scattering"]], ["This mechanism of seeds dispersal is called explosion.", ["This mechanism", "seeds dispersal", "explosion"], ["is called"]], ["When grain like jowar, wheat is ground into a flour, the particles in the flour are not all alike.", ["jowar", "wheat", "a flour", "the particles", "the flour"], ["is ground", "are not"]], ["When the flour is sifted, we find the larger particles left behind on the sieve.", ["the flour", "we", "the larger particles", "the sieve"], ["is sifted", "find", "left"]], ["These particles are fine pieces of the skin or bran of the grain.", ["These particles", "pieces", "the grain"], ["are"]], ["Bran is a fibrous substance.", ["Bran", "a fibrous substance"], ["is"]], ["In the process of digestion, fibre has a special function.", ["the process", "digestion", "fibre", "a special function"], ["has"]], ["Fibrous substances help the food to move forward in the alimentary canal at the right speed.", ["Fibrous substances", "the food", "the alimentary canal", "the right speed"], ["help", "move forward"]], ["The undigested food is of no use to the body.", ["The undigested food", "no use", "the body"], ["is"]], ["Fibre helps to form stool from this undigested food.", ["Fibre", "stool", "this undigested food"], ["helps", "form"]], ["Fibre is also called \u2018roughage\u2019.", ["Fibre", "\u2018roughage"], ["is also called"]], ["Fruits and vegetables, especially their skins, whole grains and pulses are all sources of fibre in food.", ["Fruits", "vegetables", "especially their skins", "whole grains", "pulses", "sources", "fibre", "food"], ["are"]], ["If our food does not contain enough fibre, it can lead to constipation.", ["our food", "enough fibre", "it", "constipation"], ["does not contain", "can lead"]], ["Up to now we have learnt about three types of substances present in our food starch, sugar and fibre.", ["we", "about three types", "substances", "our food starch", "sugar", "fibre"], ["have learnt"]], ["These substances are together called carbohydrates.", ["These substances", "carbohydrates"], ["are together called"]], ["The most important use of carbohydrates is to provide the body with energy.", ["The most important use", "carbohydrates", "the body", "energy"], ["is", "provide"]], ["Just as stones and bricks are the building blocks needed for a wall, proteins are the building blocks of our body.", ["stones", "bricks", "the building blocks", "a wall", "proteins", "the building blocks", "our body"], ["are", "needed", "are"]], ["The body undergoes wear and tear continuously.", ["The body"], []], ["Sometimes, it gets injured.", ["it"], ["gets injured"]], ["But, the healing and repair of our body goes on all the time without our being aware of it.", ["the healing", "repair", "our body", "all the time", "our", "it"], ["goes", "being"]], ["Proteins are necessary for that purpose.", ["Proteins", "that purpose"], ["are"]], ["Proteins are required in plenty during the growing years of a person\u2019s life.", ["Proteins", "plenty", "the growing years", "a person\u2019s life"], ["are required", "growing", "s"]], ["All the different daals, pulses, groundnuts, milk and milk products like yoghurt, khoya and paneer, eggs, meat and fish are rich sources of proteins.", ["All the different daals", "pulses", "groundnuts", "milk", "milk products", "yoghurt", "khoya", "paneer", "eggs", "meat", "fish", "rich sources", "proteins"], ["are"]], ["To get the required proteins, our daily diet should include daals, pulses as well as milk and milk products.", ["the required proteins", "our daily diet", "daals", "pulses", "milk and milk products"], ["get", "should include"]], ["Minerals : Iron, calcium, sodium, potassium are examples of minerals that are essential for the body.", ["Minerals", "Iron", "calcium", "sodium", "potassium", "examples", "minerals", "that", "the body"], ["are", "are"]], ["They are needed in very small quantities but they have an important part to play in all the necessary functions of our body.", ["They", "very small quantities", "they", "an important part", "all the necessary functions", "our body"], ["are needed", "have", "play"]], ["For example, iron is necessary for carrying oxygen to different parts of the body.", ["example", "iron", "oxygen", "different parts", "the body"], ["is", "carrying"]], ["If there is a deficiency of iron in the blood, the body does not get enough supply of oxygen, and one feels constantly weak and tired.", ["a deficiency", "iron", "the blood", "the body", "enough supply", "oxygen", "one"], ["is", "does not get"]], ["This condition is called \u2018anaemia\u2019.", ["This condition", "\u2018anaemia"], ["is called"]], ["The mineral calcium makes our bones strong.", ["The mineral calcium", "our bones"], ["makes"]], ["All kinds of fruits, vegetables, green leafy vegetables, sprouted pulses, their skins and the bran of cereals and pulses are all sources of vitamins and minerals.", ["All kinds", "fruits", "vegetables", "green leafy vegetables", "sprouted pulses", "their skins", "the bran", "cereals", "pulses", "sources", "vitamins", "minerals"], ["sprouted", "are"]], ["That is why, as far as possible, we should eat fruits with their skins and we should not sift flour to throw away the bran.", ["That", "we", "fruits", "their skins", "we", "flour", "the bran"], ["is", "should eat", "sift", "throw"]], ["Hold your hand in front of your nose or keep your hand on your chest.", ["your hand", "front", "your nose", "your hand", "your chest"], ["Hold", "keep"]], ["What do you feel?", ["What", "you"], ["do", "feel"]], ["If we observe a sleeping dog, what movement of its belly do we see ?", ["we", "a sleeping dog", "what movement", "its belly", "we"], ["observe", "do", "see"]], ["Living things need oxygen in order to live.", ["Living things", "oxygen", "order"], ["Living", "need", "live"]], ["Inhaling oxygen and exhaling the carbon dioxide formed in the body due to the use of oxygen is called respiration.", ["oxygen", "the carbon dioxide", "the body", "the use", "oxygen", "respiration"], ["Inhaling", "exhaling", "formed", "is called"]], ["Animals such as fish, snake, mouse, etc. have specific organs for respiration.", ["Animals", "fish", "snake", "mouse", "specific organs", "respiration"], ["snake", "have"]], ["On the other hand, plants respire by means of microscopic pores on their stems and leaves.", ["the other hand", "plants respire", "means", "microscopic pores", "their stems", "leaves"], ["respire"]], ["Trees : Some plants grow tall.", ["Some plants"], ["grow"]], ["Their stem, or trunk, is hard and strong.", ["Their stem", "trunk"], ["is"]], ["They have branches at some height above the ground.", ["They", "branches", "some height", "the ground"], ["have"]], ["They bear flowers and fruit for many years.", ["They", "flowers", "fruit", "many years"], ["bear"]], ["Such plants are called trees.", ["Such plants", "trees"], ["are called"]], ["Trees are tall, big and perennial, i.e., they live for many years.", ["Trees", "they", "many years"], ["are", "live"]], ["Electricity flows through metals.", ["Electricity", "metals"], ["flows"]], ["All metals are conductors of electricity to a greater or lesser extent.", ["All metals", "conductors", "electricity", "a greater or lesser extent"], ["are"]], ["This property is called electrical conductivity.", ["This property", "electrical conductivity"], ["is called"]], ["Even when a piece of a metal is heated at one place, the whole of it becomes hot.", ["a piece", "one place", "the whole", "it"], ["is heated", "becomes"]], ["It shows that metals allow heat to flow through them.", ["It", "metals", "heat", "them"], ["shows", "allow", "flow"]], ["This property is called thermal conductivity.", ["This property", "thermal conductivity"], ["is called"]], ["Metals have a typical shine or lustre.", ["Metals", "a typical shine", "lustre"], ["have"]], ["Every metal has a characteristic colour by which it can be identified.", ["Every metal", "a characteristic colour", "which", "it"], ["has", "can be identified"]], ["When we can look through a substance and see things on the other side, then that substance is said to be transparent.", ["we", "a substance", "things", "the other side", "that substance"], ["can look", "see", "is said", "be"]], ["This property of the substance is called transparency.", ["This property", "the substance", "transparency"], ["is called"]], ["Glass, some types of plastic, clean water and air are transparent substances.", ["Glass", "some types", "plastic", "clean water", "air", "transparent substances"], ["are"]], ["What will happen if pressure is applied on substances like chalk, brick, alum, glass or a rajgira wadi ?", ["What", "pressure", "substances", "chalk", "brick", "alum", "glass", "a rajgira wadi"], ["will happen", "is applied"]], ["These substances break into small pieces or particles.", ["These substances", "small pieces", "particles"], ["break"]], ["Such substances are said to be brittle.", ["Such substances"], ["are said", "be"]], ["This property of substances is called brittleness.", ["This property", "substances"], ["is called"]], ["Take some cotton wool, pull it apart and look at its edges.", ["some cotton wool", "it", "its edges"], ["Take", "pull", "look"]], ["What do you observe?", ["What", "you"], ["do", "observe"]], ["The small, thin strands that you see are made up of cotton fibres.", ["The small, thin strands", "that", "you", "cotton fibres"], ["see are made"]], ["Where does this cotton wool come from?", ["this cotton wool"], ["does", "wool come"]], ["It is grown in the fields.", ["It", "the fields"], ["is grown"]], ["Cotton plants are usually grown at places having black soil and warm climate.", ["Cotton plants", "places", "black soil", "warm climate"], ["are usually grown", "having"]], ["Can you name some states of our country where cotton is grown?", ["you", "some states", "our country", "cotton"], ["name", "is grown"]], ["The fruits of the cotton plant are about the size of a lemon.", ["The fruits", "the cotton plant", "the size", "a lemon"], ["are"]], ["After maturing, the balls burst open and seeds covered with cotton fibres can be seen.", ["the balls", "seeds", "cotton fibres"], ["maturing", "covered", "can be seen"]], ["Have you ever seen a cotton field that is ready for picking ?", ["you", "a cotton field", "that"], ["Have", "seen", "is", "picking"]], ["It looks like a field covered with snow.", ["It", "a field", "snow"], ["looks", "covered"]], ["From these bolls, cotton is usually picked by hand.", ["these bolls", "cotton", "hand"], ["is usually picked"]], ["Fibres are then separated from the seeds by combing.", ["Fibres", "the seeds"], ["are then separated", "combing"]], ["This process is called ginning of cotton.", ["This process", "ginning", "cotton"], ["is called"]], ["Ginning was traditionally done by hand.", ["Ginning", "hand"], ["Ginning was traditionally done"]], ["These days, machines are also used for ginning.", ["machines", "ginning"], ["are also used", "ginning"]], ["Every living thing gets its food from the environment.", ["Every living thing", "its food", "the environment"], ["gets"]], ["Many animals in the environment eat only plants.", ["Many animals", "the environment", "only plants"], []], ["Other animals eat the animals that live on plants.", ["Other animals", "the animals", "that", "plants"], ["eat", "live"]], ["But plants make their own food in the presence of sunlight using water and the carbon dioxide from the air.", ["plants", "their own food", "the presence", "sunlight", "water", "the carbon dioxide", "the air"], ["make", "using"]], ["It means that plants are the main support of every food chain.", ["It", "plants", "the main support", "every food chain"], ["means", "are"]], ["Fabrics are made up of yarns and yarns are further made up of fibres.", ["Fabrics", "yarns", "yarns", "fibres"], ["are made", "are further made"]], ["Where do these fibres come from?", ["these fibres"], ["do", "come"]], ["The fibres of some fabrics such as cotton, jute, silk and wool are obtained from plants and animals.", ["The fibres", "some fabrics", "cotton", "jute", "silk", "wool", "plants", "animals"], ["are obtained"]], ["These are called natural fibres.", ["These", "natural fibres"], ["are called"]], ["The fibres of some fabrics such as cotton, jute, silk and wool are obtained from plants and animals.", ["The fibres", "some fabrics", "cotton", "jute", "silk", "wool", "plants", "animals"], ["are obtained"]], ["These are called natural fibres.", ["These", "natural fibres"], ["are called"]], ["Cotton and jute are examples of fibres obtained from plants.", ["Cotton", "jute", "examples", "fibres", "plants"], ["are", "obtained"]], ["Wool and silk fibres are obtained from animals.", ["Wool", "silk fibres", "animals"], ["are obtained"]], ["Wool is obtained from the fleece of sheep or goat.", ["Wool", "the fleece", "sheep", "goat"], ["is obtained"]], ["It is also obtained from the hair of rabbits, yak and camels.", ["It", "the hair", "rabbits", "yak", "camels"], ["is also obtained"]], ["Silk fibre is drawn from the cocoon of silkworm.", ["Silk fibre", "the cocoon", "silkworm"], ["is drawn"]], ["For thousands of years natural fibres were the only ones available for making fabrics.", ["years", "the only ones", "fabrics"], ["were", "making"]], ["In the last hundred years or so, fibres are also made from chemical substances, which are not obtained from plants or animal sources.", ["the last hundred years", "fibres", "chemical substances", "which", "plants", "animal sources"], ["are also made", "are not obtained"]], ["These are called synthetic fibres.", ["These", "synthetic fibres"], ["are called"]], ["Some examples of synthetic fibres are polyester, nylon and acrylic.", ["synthetic fibres", "polyester", "nylon", "acrylic"], ["are polyester"]],

["Have you ever made wicks for oil lamps?", ["you", "wicks", "oil lamps"], ["Have", "made"]],

["What do you use for making these wicks?", ["**What**", "you", "these wicks"], ["do", "use", "making"]],

["This cotton wool is also used for filling mattresses, quilts or pillows.", ["This cotton wool", "mattresses", "quilts", "pillows"], ["is also used", "filling"]],

["Take some cotton wool, pull it apart and look at its edges.", ["some cotton wool", "it", "its edges"], ["Take", "pull", "look"]],

["What do you observe?", ["**What**", "you"], ["do", "observe"]],

["The small, thin strands that you see are made up of cotton fibres.", ["The small, thin strands", "that", "you", "cotton fibres"], ["see are made"]],

["Where does this cotton wool come from?", ["this cotton wool"], ["does", "wool come"]],

["It is grown in the fields.", ["It", "the fields"], ["is grown"]],

["Cotton plants are usually grown at places having black soil and warm climate.", ["Cotton plants", "places", "black soil", "warm climate"], ["are usually grown", "having"]],

["Can you namesome states of our country where cotton is grown?", ["you", "some states", "our country", "cotton"], ["name", "is grown"]],

["The fruits of the cotton plant (cotton bolls) are about the size of a lemon.", ["The fruits", "the cotton plant", "(cotton bolls", "the size", "a lemon"], ["are"]],

["After maturing, the bolls **burst** open and the seeds covered with cotton fibres can be seen.", ["the bolls", "the seeds", "cotton fibres"], ["maturing", "covered", "can be seen"]],

["Have you ever seen a cotton field that is **ready** for picking?", ["you", "a cotton field", "that"], ["Have", "seen", "is", "picking"]],

["It looks like a field covered with snow.na From these bolls, cotton is usually picked by hand.", ["It", "a field", "snow.na", "these bolls", "cotton", "hand"], ["looks", "covered", "is usually picked"]],

["Fibres are then separated from the seeds by combing.", ["Fibres", "the seeds"], ["are then separated", "combing"]],

["This process is called **ginning** of cotton.", ["This process", "**ginning**", "cotton"], ["is called"]],

["Ginning was traditionally done by hand (Fig.3.7).", **["Ginning**", "hand", "Fig.3.7"], ["Ginning was traditionally done"]],

["**These days**, machines are also used for ginning.", ["machines", "**ginning**"], ["are also used", "ginning"]]]