



101 EXERCISES

TYPING EXERCISES : 58

MS-EXCEL EXERCISES: 20

MS-POWERPOINT EXERCISES: 20

ACTUAL CPT EXERCISES (SSC): 3

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(Owner of "Mandal Maths" Channel)

Message to the aspirants

A. Regarding Typing Materials:

- i. The typing materials containing 58 exercises are created from the chapters of Class 9 NCERT Textbooks.
- ii. In most of the exams, the typing test is done in two ways i.e.
 - 2000 key depressions in 15 minutes. (27 wpm)
 - 1750 key depressions in 10 minutes. (35 wpm)
- iii. Hence, 1750th word and 2000th word for the starting 20 exercises are highlighted for trial version. If you like it, please send a mail.
Note: Please ignore the underline (or highlighted) part while typing.
- iv. If you have time left, don't type the material again. Use your time in finding the error. You can use backspace, delete button and mouse in actual exam.
- v. Don't worry about single (or double) space.
My suggestion: Use only single space.
Note: You may see more space between some words, it is mostly due to Alignment/Justification both sides.
- vi. Use tab button at the start of the paragraph if spaces are visible. In 95% cases, spaces are there and tab should be used.
- vii. Use Enter at the end of the paragraph only (not for the every line).

B. Regarding MS-Excel Exercises

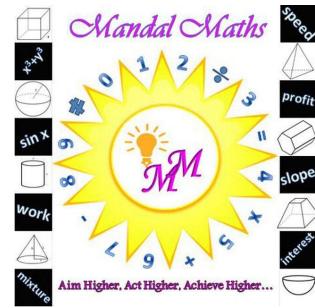
- i. Exercises 59 to 63 and Exercises 73 to 78 are similar to actual exercise of SSC CGL.
- ii. I have added Exercises 64 to 72 to give you some knowledge about salary and tax calculation (with cess).

C. Regarding MS-PowerPoint Exercises:

- i. Nearly all exercises are similar to actual exercise of SSC CGL.
- ii. Some terms like Leave, HBA, Allowance, Advance, etc. are referred in Exercises which may help in your service.



I have tried my Best to make all the exercises error free. Still, there may be some error. If you find any error or have any message, you are requested to send an e-mail to mandalmaths@gmail.com. Regards, Varun Kumar Mandal



1. Organisation of Production

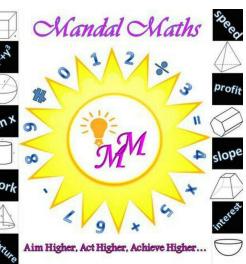
The aim of production is to produce the goods and services that we want. There are four requirements for production of goods and services. Every production is organised by combining land, labour, physical capital and human capital, which are known as factors of production.

The first requirement is land, and other natural resources such as water, forests, minerals etc. The second requirement is labour, i.e. people who will do the work. Some production activities require highly educated workers to perform the necessary tasks. Other activities require workers who can do manual work. Each worker is providing the labour necessary for production.

The third requirement is physical capital, i.e. the variety of inputs required at every stage during production. What are the items that come under physical capital? Tools, machines, buildings can be used in production over many years, and are called fixed capital. Production requires a variety of raw materials such as the yarn used by the weaver and the clay used by the potter. Also, some money is always required during production to make payments and buy other necessary items. Raw materials and money in hand are called working capital. Unlike tools, machines and buildings, these are used up in production.

There is a fourth requirement too. You will need knowledge and enterprise to be able to put together land, labour and physical capital and produce an output either to use yourself or to sell in the market. This these days is called human capital. Investment in human capital (through education, training, medical care) yields a return just like investment in physical capital. This can be seen directly in the form of higher incomes earned because of higher productivity of the more educated or the better trained persons, as well as the higher productivity of healthier people.

In fact, human capital is in one way superior to other resources like land and physical capital: human resource can make use of land and capital. Land and capital cannot become useful on its own!



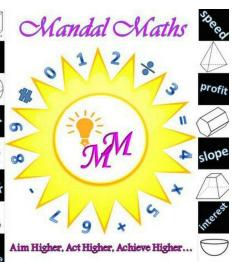
2. Village and its production activities

Farming is the main production activity in the village. Over the years there have been many important changes in the way farming is practiced. These have allowed the farmers to produce more crops from the same amount of land. This is an important achievement, since land is fixed and scarce. But in raising production a great deal of pressure has been put on land and other natural resources.

The new ways of farming need less land, but much more of capital. The medium and large farmers are able to use their own savings from production to arrange for capital during the next season. On the other hand, the small farmers who constitute about 80 per cent of total farmers in India, find it difficult to obtain capital. Because of the small size of their plots, their production is not enough. The lack of surplus means that they are unable to obtain capital from their own savings, and have to borrow. Besides the debt, many of the small farmers have to do additional work as farm labourers to feed themselves and their families.

Labour being the most abundant factor of production, it would be ideal if new ways of farming used much more labour. Unfortunately, such a thing has not happened. The use of labour on farms is limited. The labour, looking for opportunities is thus migrating to neighbouring villages, towns and cities. Some labour has entered the non-farm sector in the village.

In the future, one would like to see more non-farm production activities in the village. Unlike farming, non-farm activities require little land. People with some amount of capital can set up non-farm activities. How does one obtain this capital? One can either use his own savings, but more often has to take a loan. It is important that loan be available at low rate of interest so that even people without savings can start some non-farm activity. Another thing which is essential for expansion of non-farm activities is to have markets where the goods and services produced can be sold. Neighbouring villages, towns and cities provide the markets for milk, jaggery, wheat, etc.

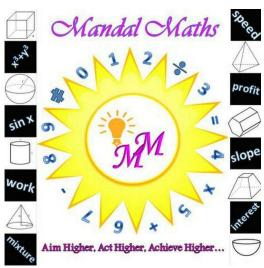


3. Poverty as seen by social scientists

Since poverty has many facets, social scientists look at it through a variety of indicators. Usually the indicators used relate to the levels of income and consumption. But now poverty is looked through other social indicators like illiteracy level, lack of general resistance due to malnutrition, lack of access to healthcare, lack of job opportunities, lack of access to safe drinking water, sanitation etc. Analysis of poverty based on social exclusion and vulnerability is now becoming very common.69
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According to social exclusion, poverty must be seen in terms of the poor having to live only in a poor surrounding with other poor people, excluded from enjoying social equality of better-off people in better surroundings. Social exclusion can be both a cause as well as a consequence of poverty in the usual sense. Broadly, it is a process through which individuals or groups are excluded from facilities, benefits and opportunities that others enjoy. A typical example is the working of the caste system in India in which people belonging to certain castes are excluded from equal opportunities. Social exclusion thus may lead to, but can cause more damage than, having a very low income.

Vulnerability to poverty is a measure, which describes the greater probability of certain communities (say, members of a backward caste) or individuals (such as a widow or a physically handicapped person) of becoming, or remaining, poor in the coming years. Vulnerability is determined by the options available to different communities for finding an alternative living in terms of assets, education, health and job opportunities. Further, it is analysed on the basis of the greater risks these groups face at the time of natural disasters (earthquakes, tsunami), terrorism etc. Additional analysis is made of their social and economic ability to handle these risks. In fact, vulnerability describes the greater probability of being more adversely affected than other people when bad time comes for everybody, whether a flood or an earthquake or simply a fall in the availability of jobs!

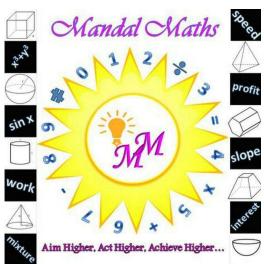


4. Poverty and the challenges ahead

Poverty has many dimensions. Normally, this is measured through the concept of “poverty line”. Through this concept we analysed main global and national trends in poverty. But in recent years, analysis of poverty is becoming rich through a variety of new concepts like social exclusion. Similarly, the challenge is becoming bigger as scholars are broadening the concept into human poverty.63
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Poverty has certainly declined in India. But despite the progress, poverty reduction remains India’s most compelling challenge. Wide disparities in poverty are visible between rural and urban areas and among different states. Certain social and economic groups are more vulnerable to poverty. Poverty reduction is expected to make better progress in the next ten to fifteen years. This would be possible mainly due to higher economic growth, increasing stress on universal free elementary education, declining population growth, increasing empowerment of the women and the economically weaker sections of society.456
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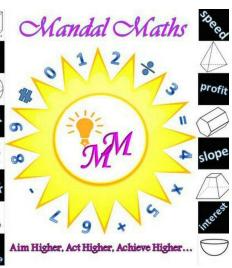
The official definition of poverty, however, captures only a limited part of what poverty really means to people. It is about a “minimum” subsistence level of living rather than a “reasonable” level of living. Many scholars advocate that we must broaden the concept into human poverty. A large number of people may have been able to feed themselves. But do they have education? Or shelter? Or health care? Or job security? Or self confidence? Are they free from caste and gender discrimination? Is the practice of child labour still common? Worldwide experience shows that with development, the definition of what constitutes poverty also changes. Eradication of poverty is always a moving target. Hopefully we will be able to provide the minimum “necessary” in terms of only income to all people by the end of the next decade. But the target will move on for many of the bigger challenges that still remain: providing health care, education and job security for all, and achieving gender equality and dignity for the poor.1074
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5. Food Security

In the 1970s, food security was understood as the “availability at all times of adequate supply of basic foodstuffs”. Amartya Sen added a new dimension to food security and emphasised the “access” to food through what he called ‘entitlements’- a combination of what one can produce, exchange in the market alongwith state or other socially provided supplies. In 1995 World Food Summit declared, “Food security at the individual, household, regional, national and global levels exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”.

Food security of a nation is ensured if all of its citizens have enough nutritious food available, all persons have the capacity to buy food of acceptable quality and there is no barrier on access to food. The people living below the poverty line might be food insecure all the time while better off people might also turn food insecure due to calamity or disaster. Although a large section of people suffer from food and nutrition insecurity in India, the worst affected groups are landless or land poor households in rural areas and people employed in ill paid occupations and casual labourers engaged in seasonal activities in the urban areas. The food insecure people are disproportionately large in some regions of the country, such as economically backward states with high incidence of poverty, tribal and remote areas, regions more prone to natural disasters etc. To ensure availability of food to all sections of the society the Indian government carefully designed food security system, which is composed of two components: buffer stock and public distribution system. In addition to PDS, various poverty alleviation programmes were also started which comprised a component of food security. Some of these programmes are as: Integrated Child Development Services; Food-for-Work; Mid-Day Meals; Antyodaya Anna Yojana etc.

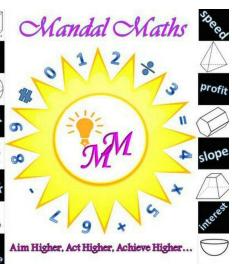


6. Matter in our surroundings

Matter is made up of small particles. The matter around us exists in three states:- solid, liquid and gas. The forces of attraction between the particles are maximum in solids, intermediate in liquids and minimum in gases. The spaces in between the constituent particles and kinetic energy of the particles are minimum in the case of solids, intermediate in liquids and maximum in gases. The arrangement of particles is most ordered in the case of solids, in the case of liquids layers of particles can slip and slide over each other while for gases, there is no order, particles just move about randomly.

The states of matter are inter-convertible. The state of matter can be changed by changing temperature or pressure. Sublimation is the change of solid state directly to gaseous state without going through liquid state. Deposition is the change of gaseous state directly to solid state without going through liquid state. Boiling is a bulk phenomenon. Particles from the bulk (whole) of the liquid change into vapour state. Evaporation is a surface phenomenon. Particles from the surface gain enough energy to overcome the forces of attraction present in the liquid and change into the vapour state. The rate of evaporation depends upon the surface area exposed to the atmosphere, the temperature, the humidity and the wind speed. Evaporation causes cooling. Latent heat of vaporisation is the heat energy required to change 1 kg of a liquid to gas at atmospheric pressure at its boiling point. Latent heat of fusion is the amount of heat energy required to change 1 kg of solid into liquid at its melting point.

Now scientists are talking of five states of matter: Solid, Liquid, Gas, Plasma and Bose-Einstein Condensate (BEC). The Plasma consists of super energetic and super excited particles. These particles are in the form of ionised gases. The BEC is formed by cooling a gas of extremely low density, about one-hundred-thousandth the density of normal air, to super low temperatures. You can log on to www.chem4kids.com to get more information on these fourth and fifth states of matter.

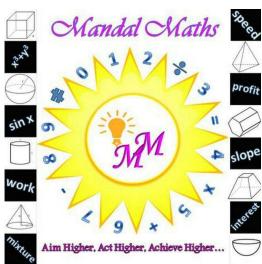


7. Is Matter around us pure

How do we judge whether milk, ghee, butter, salt, spices, mineral water or juice that we buy from the market are pure? Have you ever noticed the word 'pure' written on the packs of these consumables? For a common person pure means having no adulteration. But, for a scientist all these things are actually mixtures of different substances and hence not pure. For example, milk is actually a mixture of water, fat, proteins etc. When a scientist says that something is pure, it means that all the constituent particles of that substance are the same in their chemical nature. A pure substance consists of a single type of particles. In other words, a substance is a pure single form of matter. As we look around, we can see that most of the matter around us exist as mixtures of two or more pure components. For example: sea water, minerals, soil etc. are all mixtures.

Mixtures are constituted by more than one kind of pure form of matter. We know that dissolved sodium chloride can be separated from water by the physical process of evaporation. However, sodium chloride is itself a pure substance and cannot be separated by physical process into its chemical constituents. Similarly, sugar is a substance which contains only one kind of pure matter and its composition is the same throughout. Soft drink and soil are not single pure substances. Whatever the source of a pure substance may be, it will always have the same characteristic properties. Therefore, we can say that a mixture contains more than one pure substance.

Based on the composition, mixture can be defined as homogeneous mixture and heterogeneous mixture. A mixture in which its constituents are distributed uniformly is called homogeneous mixture, such as salt in water. A mixture in which its constituents are not distributed uniformly is called heterogeneous mixture, such as sand in water. Based on the particle size of the component, mixture are further classified into solution, a suspension and a colloid. We will see these in the next exercise.

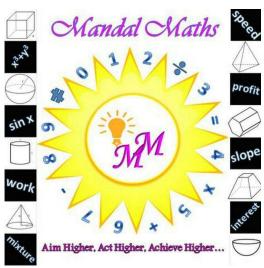


8. A solution, a suspension and a colloid

A solution is a homogeneous mixture of two or more substances.62
A solution has a solvent and a solute as its components. The component of the solution that dissolves the other component in it is called the solvent. The component of the solution that is dissolved in the solvent is called the solute. Depending upon the amount of solute present in a solution, it can be called a dilute or concentrated solution; a saturated or unsaturated solution. A solution that has dissolved as much solute as it is capable of dissolving, is said to be a saturated solution. The amount of the solute present in the saturated solution at this temperature is called its solubility. The particles of a solution are smaller than 1 nm in diameter. So, they cannot be seen by naked eyes. Because of very small particle size, they do not scatter a beam of light passing through the solution. So, the path of light is not visible in a solution. The solute particles cannot be separated from the mixture by the process of filtration. The solute particles do not settle down when left undisturbed, that is, a solution is stable.133
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A colloid is a heterogeneous mixture. Molecule sizes of colloids are from 1 nanometer to 1 micrometer. The different substances in a colloid can be disconnected by a centrifuge. The size of particles of a colloid is too small to be individually seen by naked eyes. Colloids are big enough to scatter a beam of light passing through it and make its path visible (Tyndall effect). A colloid is stable.

A suspension is a heterogeneous mixture in which the solute particles do not dissolve but remain suspended throughout the bulk of the medium. Particles of a suspension are visible to the naked eye. The particles of a suspension scatter a beam of light passing through it and make its path visible. The solute particles settle down when a suspension is left undisturbed, that is, a suspension is unstable. They can be separated from the mixture by the process of filtration. When the particles settle down, the suspension breaks and it does not scatter light any more.

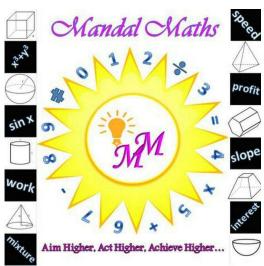


9. Pure Substances, Mixture, and Separating Techniques

A mixture contains more than one substance (element and/ or compound) mixed in any proportion. Mixtures can be separated into pure substances using appropriate separation techniques. A solution is a homogeneous mixture of two or more substances. The major component of a solution is called the solvent, and the minor, the solute. The concentration of a solution is the amount of solute present per unit volume or per unit mass of the solution. Materials that are insoluble in a solvent and have particles that are visible to naked eyes, form a suspension. A suspension is a heterogeneous mixture. Colloids are heterogeneous mixtures in which the particle size is too small to be seen with the naked eye, but is big enough to scatter light. Colloids are useful in industry and daily life. The particles are called the dispersed phase and the medium in which they are distributed is called the dispersion medium.

Pure substances can be elements or compounds. An element is a form of matter that cannot be broken down by chemical reactions into simpler substances. A compound is a substance composed of two or more different types of elements, chemically combined in a fixed proportion. Properties of a compound are different from its constituent elements, whereas a mixture shows the properties of its constituting elements or compounds.

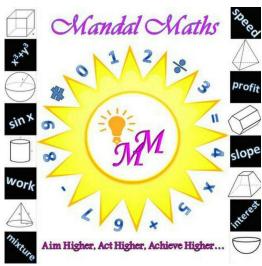
There are several types of separation techniques that are used in segregating a mixture of substances. As for the need for separation, it is usually done to remove all the unwanted materials and obtain useful components. Some of the common methods of separating substances or mixtures are: Crystallization, Filtration, Decantation, Sublimation, Evaporation, Simple distillation, Fractional distillation, Chromatography, Centrifugation, Separating funnel, Magnetic separation, Precipitation. Thus, by choosing one of the methods according to the nature of the components of a mixture, we get a pure substance. With advancements in technology many more methods of separation techniques have been devised.



10. Atoms and Molecules

During a chemical reaction, the sum of the masses of the reactants and products remains unchanged. This is known as the Law of Conservation of Mass. In a pure chemical compound, elements are always present in a definite proportion by mass. This is known as the Law of Definite Proportions. An atom is the smallest particle of the element that cannot usually exist independently and retain all its chemical properties. Scientists use the relative atomic mass scale to compare the masses of different atoms of elements. Atoms of carbon-12 isotopes are assigned a relative atomic mass of 12 and the relative masses of all other atoms are obtained by comparison with the mass of a carbon-12 atom. Atoms of most elements are not able to exist independently.66
A molecule is the smallest particle of an element or a compound capable of independent existence under ordinary conditions. It shows all the properties of the substance. Compounds composed of metals and nonmetals contain charged species. The charged species are known as ions. Ions may consist of a single charged atom or a group of atoms that have a net charge on them. An ion can be negatively or positively charged. A negatively charged ion is called an "anion" and the positively charged ion, "a cation". In ionic compounds, the charge on each ion is used to determine the chemical formula of the compound. Clusters of atoms that act as an ion are called polyatomic ions. They carry a fixed charge on them. The combining capacity of an element is known as its valency. Valency can be used to find out how the atoms of an element will combine with the atoms of another element to form a chemical compound. The valency of the atom of an element can be thought of as hands or arms of that atom.126
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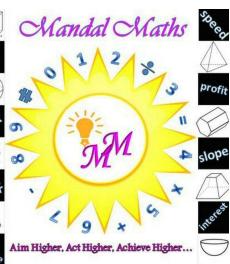
The Avogadro constant is defined as the number of atoms in exactly 12 g of carbon-12. The mole is the amount of substance that contains the same number of particles as there are atoms in exactly 12 g of carbon-12. Mass of 1 mole of a substance is called its molar mass.



11. Structure of an Atom

The existence of different kinds of matter is due to different atoms constituting them. Now the questions arise: What makes the atom of one element different from the atom of another element? Are atoms really indivisible, as proposed by Dalton, or are there smaller constituents inside the atom? We will learn about sub-atomic particles and the various models that have been proposed to explain how these particles are arranged within the atom.

Credit for the discovery of electron and proton goes to J.J. Thomson and E. Goldstein, respectively. J.J. Thomson proposed that electrons are embedded in a positive sphere. Rutherford's alpha-particle scattering experiment led to the discovery of the atomic nucleus. Rutherford's model of the atom proposed that a very tiny nucleus is present inside the atom and electrons revolve around this nucleus. The stability of the atom could not be explained by this model. Niels Bohr's model of the atom was more successful. He proposed that electrons are distributed in different shells with discrete energy around the nucleus. If the atomic shells are complete, then the atom will be stable and less reactive. J. Chadwick discovered presence of neutrons in the nucleus of an atom. So, the three sub-atomic particles of an atom are: electrons, protons and neutrons. Electrons are negatively charged, protons are positively charged and neutrons have no charges. The mass of an electron is about 0.0005 of the mass of a hydrogen atom. The mass of a proton and a neutron is taken as one unit each. Shells of an atom are designated as K, L, M, N, etc. Valency is the combining capacity of an atom. The atomic number of an element is the same as the number of protons in the nucleus of its atom. The mass number of an atom is equal to the number of nucleons in its nucleus. Isotopes are atoms of the same element, which have different mass numbers. Isobars are atoms having the same mass number but different atomic numbers. Elements are defined by the number of protons they possess.

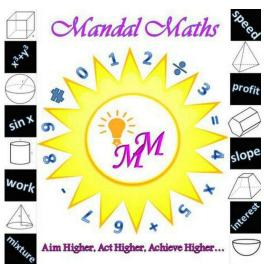


12. The Fundamental Unit Of Life

The fundamental organizational unit of life is the cell. Cells are66
enclosed by a plasma membrane composed of lipids and proteins. The133
cell membrane is an active part of the cell. It regulates the movement of207
materials between the ordered interior of the cell and the outer272
environment. In plant cells, a cell wall composed mainly of cellulose is345
located outside the cell membrane. The presence of the cell wall enables418
the cells of plants, fungi and bacteria to exist in hypotonic media without494
bursting.504

The nucleus in eukaryotes is separated from the cytoplasm by565
double-layered membrane and it directs the life processes of the cell.636
The ER functions both as a passageway for intracellular transport and as709
a manufacturing surface. The Golgi apparatus consists of stacks of776
membrane-bound vesicles that function in the storage, modification and847
packaging of substances manufactured in the cell. Most plant cells have919
large membranous organelles called plastids, which are of two types –989
chromoplasts and leucoplasts. Chromoplasts that contain chlorophyll are1061
called chloroplasts and they perform photosynthesis. The primary1126
function of leucoplasts is storage. Most mature plant cells have a large1199
central vacuole that helps to maintain the turgidity of the cell and stores1275
important substances including wastes. Prokaryotic cells have no1340
membrane-bound organelles, their chromosomes are composed of only1406
nucleic acid, and they have only very small ribosomes as organelles.1475
Cells in organisms divide for growth of body, for replacing dead cells,1547
and for forming gametes for reproduction.1589

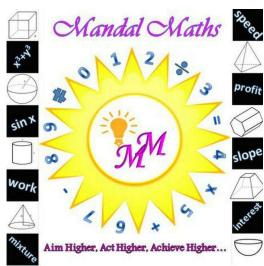
Cells were first discovered by Robert Hooke in 1665. He observed1654
the cells in a cork slice with the help of a primitive microscope. It was1728
Robert Brown in 1831 who discovered the nucleus in the cell. Purkinje1798
in 1839 coined the term ‘protoplasm’ for the fluid substance of the cell.1872
The cell theory, that all the plants and animals are composed of cells and1947
that the cell is the basic unit of life, was presented by two biologists,2021
Schleiden (1838) and Schwann (1839).2058



13. Tissues

In unicellular organisms, a single cell performs all basic functions.69
For example, in Amoeba, a single cell carries out movement, intake of food, gaseous exchange and excretion. But in multicellular organisms there are millions of cells. Most of these cells are specialised to carry out specific functions. Each specialised function is taken up by a different group of cells. Since these cells carry out only a particular function, they do it very efficiently. In human beings, muscle cells contract and relax to cause movement, nerve cells carry messages, blood flows to transport oxygen, food, hormones and waste material and so on. In plants, vascular tissues conduct food and water from one part of the plant to other parts. So, multi-cellular organisms show division of labour. Cells specialising in one function are often grouped together in the body. This means that a particular function is carried out by a cluster of cells at a definite place in the body. This cluster of cells, called a tissue, is arranged and designed so as to give the highest possible efficiency of function. Blood, phloem and muscle are all examples of tissues.1143

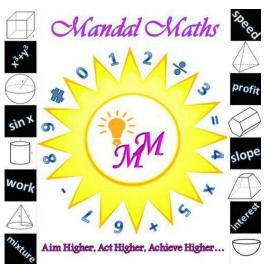
Tissue is a group of cells similar in structure and function. Plant tissues are of two main types – meristematic and permanent. Meristematic tissue is the dividing tissue present in the growing regions of the plant. Permanent tissues are derived from meristematic tissue once they lose the ability to divide. They are classified as simple and complex tissues. Parenchyma, collenchyma and sclerenchyma are three types of simple tissues. Xylem and phloem are types of complex tissues. Animal tissues can be epithelial, connective, muscular and nervous tissue. Depending on shape and function, epithelial tissue is classified as squamous, cuboidal, columnar, ciliated and glandular. The different types of connective tissues in our body include areolar tissue, adipose tissue, bone, tendon, ligament, cartilage and blood. Striated, unstriated and cardiac are three types of muscle tissues.2030



14. Diversity In Living Organisms

Classification helps us in exploring the diversity of life forms. The major characteristics considered for classifying all organisms into five major kingdoms are: whether they are made of prokaryotic or eukaryotic cells; whether the cells are living singly or organised into multi-cellular and thus complex organisms; whether the cells have a cell wall and whether they prepare their own food. All living organisms are divided on the above bases into five kingdoms, namely Monera, Protista, Fungi, Plantae and Animalia. The classification of life forms is related to their evolution. Plantae and Animalia are further divided into subdivisions on the basis of increasing complexity of body organisation. Plants are divided into five groups: Thallophytes, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms. Animals are divided into ten groups: Porifera, Coelenterata, Platyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata, Protochordata and Vertebrata. The binomial nomenclature makes for a uniform way of identification of the vast diversity of life around us. The binomial nomenclature is made up of two words - a generic name and a specific name.

Biodiversity means the diversity of life forms. Diverse life forms share the environment, and are affected by each other too. As a result, a stable community of different species comes into existence. Humans have played their own part in recent times in changing the balance of such communities. Of course, the diversity in such communities is affected by particular characteristics of land, water, climate and so on. Rough estimates state that there are about ten million species on the planet, although we actually know only one or two millions of them. The warm and humid tropical regions of the earth, between the tropic of Cancer and the tropic of Capricorn, are rich in diversity of plant and animal life. This is called the region of megadiversity. Of the biodiversity on the planet, more than half is concentrated in a few countries.

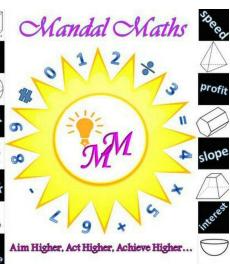


15. Motion and Force

Motion is a change of position; it can be described in terms of the distance moved or the displacement. The motion of an object could be uniform or non-uniform depending on whether its velocity is constant or changing. The speed of an object is the distance covered per unit time, and velocity is the displacement per unit time. The acceleration of an object is the change in velocity per unit time. Uniform and non-uniform motions of objects can be shown through graphs. The motion of an object moving at uniform acceleration can be described with the help of the equations. If an object moves in a circular path with uniform speed, its motion is called uniform circular motion.

First law of motion: An object continues to be in a state of rest or of uniform motion along a straight line unless acted upon by an unbalanced force. The natural tendency of objects to resist a change in their state of rest or of uniform motion is called inertia. The mass of an object is a measure of its inertia. Force of friction always opposes motion of objects. Second law of motion: The rate of change of momentum of an object is proportional to the applied unbalanced force in the direction of the force. The unit of force is known as newton and represented by the symbol N. The momentum of an object is the product of its mass and velocity and has the same direction as that of the velocity. Third law of motion: To every action, there is an equal and opposite reaction and they act on two different bodies. In an isolated system, where there is no external force, the total momentum remains conserved.

All conservation laws such as conservation of momentum, energy, angular momentum, charge etc. are considered to be fundamental laws in physics. These are based on observations and experiments. It is important to remember that a conservation law cannot be proved. It can be verified, or disproved, by experiments. An experiment whose result is in conformity with the law verifies or substantiates the law. A single experiment whose result goes against the law is enough to disprove it.

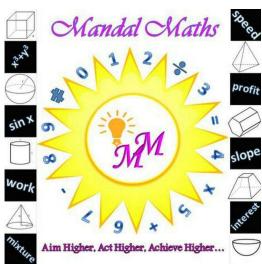


16. Gravitation

In the previous exercises, we have learnt about the motion of objects and force as the cause of motion. We have learnt that a force is needed to change the speed or the direction of motion of an object. We always observe that an object dropped from a height falls towards the earth. We know that all the planets go around the Sun. The moon goes around the earth. In all these cases, there must be some force acting on the objects, the planets and on the moon. Isaac Newton could grasp that the same force is responsible for all these. This force is called the gravitational force. In this chapter we shall learn about gravitation and the universal law of gravitation. We shall discuss the motion of objects under the influence of gravitational force on the earth. We shall study how the weight of a body varies from place to place. We shall also discuss the conditions for objects to float in liquids.

The law of gravitation states that the force of attraction between any two objects is proportional to the product of their masses and inversely proportional to the square of the distance between them. The law applies to objects anywhere in the universe. Such a law is said to be universal. The law is universal in the sense that it is applicable to all bodies, whether the bodies are big or small, whether they are celestial or terrestrial. Gravitation is a weak force unless large masses are involved. The force of gravity decreases with altitude. It also varies on the surface of the earth, decreasing from poles to the equator. The weight of a body is the force with which the earth attracts it. The weight is equal to the product of mass and acceleration due to gravity. The weight may vary from place to place but the mass stays constant.

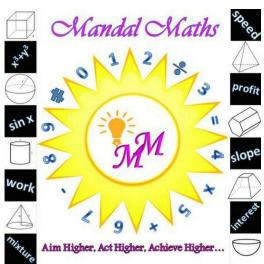
All objects experience a force of buoyancy when they are immersed in a fluid. Objects having density less than that of the liquid in which they are immersed, float on the surface of the liquid. If the density of the object is more than the density of the liquid in which it is immersed then it sinks in the liquid.



17. Work and Energy

We have talked about ways of describing the motion of objects,62
the cause of motion and gravitation. Another concept that helps us129
understand and interpret many natural phenomena is ‘work’. Closely196
related to work are energy and power. All living beings need food.263
Living beings have to perform several basic activities to survive. We call338
such activities ‘life processes’. The energy for these processes comes409
from food. We need energy for other activities like playing, singing,479
reading, writing, thinking, jumping, cycling and running. Activities that553
are strenuous require more energy. Animals too get engaged in activities.627
For example, they may jump and run. They have to fight, move away693
from enemies, find food or find a safe place to live. All such activities767
require energy. Think of machines. List the machines that you have834
come across. What do they need for their working? Why do some896
engines require fuel like petrol and diesel? Why do living beings and966
machines need energy?988

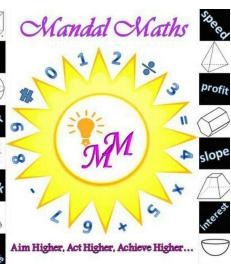
Work done on an object is defined as the magnitude of the force1052
multiplied by the distance moved by the object in the direction of the1123
applied force. The unit of work is joule. Work done on an object by a1193
force would be zero if the displacement of the object is zero. An object1266
having capability to do work is said to possess energy. Energy has the1337
same unit as that of work. An object in motion possesses what is known1408
as the kinetic energy of the object. The energy possessed by a body due1481
to its change in position or shape is called the potential energy.1548
According to the law of conservation of energy, energy can only be1615
transformed from one form to another; it can neither be created nor1683
destroyed. The total energy before and after the transformation always1754
remains constant. Energy exists in nature in several forms such as kinetic1829
energy, potential energy, heat energy, chemical energy etc. The sum of1900
the kinetic and potential energies of an object is called its mechanical1973
energy. Power is defined as the rate of doing work.2025



18. Sound

Sound is produced due to vibration of different objects. Sound travels as a longitudinal wave through a material medium. Sound travels as successive compressions and rarefactions in the medium. In sound propagation, it is the energy of the sound that travels and not the particles of the medium. Sound cannot travel in vacuum. The change in density from one maximum value to the minimum value and again to the maximum value makes one complete oscillation. The distance between two consecutive compressions or two consecutive rarefactions is called the wavelength. The time taken by the wave for one complete oscillation of the density or pressure of the medium is called the time period. The number of complete oscillations per unit time is called the frequency. The speed of sound depends primarily on the nature and the temperature of the transmitting medium. The law of reflection of sound states that the directions in which the sound is incident and reflected make equal angles with the normal to the reflecting surface at the point of incidence and the three lie in the same plane.

For hearing a distinct sound, the time interval between the original sound and the reflected one must be at least 0.1 s. The persistence of sound in an auditorium is the result of repeated reflections of sound and is called reverberation. Sound properties such as pitch, loudness and quality are determined by the corresponding wave properties. Loudness is a physiological response of the ear to the intensity of sound. The amount of sound energy passing each second through unit area is called the intensity of sound. The audible range of hearing for average human beings is in the frequency range of 20 Hz to 20 kHz. Sound waves with frequencies below the audible range are termed “infrasonic” and those above the audible range are termed “ultrasonic”. Ultrasound has many medical and industrial applications. The SONAR technique is used to determine the depth of the sea and to locate under water hills, valleys, submarines, icebergs, sunken ships etc.



19. Why do we fall ill?

When we do this exercise, we realise that health and disease in human communities are very complex issues, with many interconnected causes. We also realise that the ideas of what ‘health’ and ‘disease’ mean are themselves very complicated. When we ask what causes diseases and how we prevent them, we have to begin by asking what these notions mean.63

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Health is a state of physical, mental and social well-being. The health of an individual is dependent on his/her physical surroundings and his/her economic status. Diseases are classified as acute or chronic, depending on their duration. Disease may be due to infectious or non-infectious causes. Infectious agents belong to different categories of organisms and may be unicellular and microscopic or multicellular. The category to which a disease-causing organism belongs decides the type of treatment. Infectious agents are spread through air, water, physical contact or vectors. Prevention of disease is more desirable than its successful treatment. Infectious diseases can be prevented by public health hygiene measures that reduce exposure to infectious agents. Infectious diseases can also be prevented by using immunisation. Effective prevention of infectious diseases in the community requires that everyone should have access to public hygiene and immunisation.414

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Traditional Indian and Chinese medicinal systems sometimes deliberately rubbed the skin crusts from smallpox victims into the skin of healthy people. They thus hoped to induce a mild form of smallpox that would create resistance against the disease. Famously, two centuries ago, an English physician named Edward Jenner, realised that milkmaids who had had cowpox did not catch smallpox even during epidemics. Cowpox is a very mild disease. Jenner tried deliberately giving cowpox to people, and found that they were now resistant to smallpox. This was because the smallpox virus is closely related to the cowpox virus. ‘Cow’ is ‘vacca’ in Latin, and cowpox is ‘vaccinia’. From these roots, the word ‘vaccination’ has come into our usage.1379

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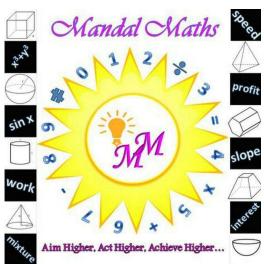
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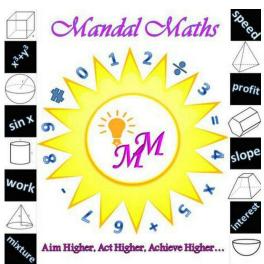
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20. Natural Resource and Food Resource

Life on Earth depends on resources like soil, water and air, and energy from the Sun. Uneven heating of air over land and water-bodies causes winds. Evaporation of water from water-bodies and subsequent condensation give us rain. Rainfall patterns depend on the prevailing wind patterns in an area. Various nutrients are used again and again in a cyclic fashion. This leads to a certain balance between the various components of the biosphere. Pollution of air, water and soil affect the quality of life and harm the biodiversity. We need to conserve our natural resources and use them in a sustainable manner.64
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There are several nutrients essential for crops. Of these, some are required in large quantities and are known as macro-nutrients whereas rest of the nutrients are required in small quantities and are known as micro-nutrients. Manure and fertilizers are the main sources of nutrient supply to crops. Organic farming is a farming system with minimal or no use of chemicals as fertilizers, herbicides, pesticides etc. and with a maximum input of organic manures, recycled farm wastes, and bio-agents, with healthy cropping systems. Mixed cropping is growing of two or more crops simultaneously on the same piece of land. Growing two or more crops in definite row patterns is known as inter-cropping. The growing of different crops on a piece of land in pre-planned succession is called crop rotation. Varietal improvement is required for higher yield, good quality, biotic and abiotic resistance, shortening the maturity duration, wider adaptability and desirable agronomic characteristics. Farm animals require proper care and management such as shelter, feeding, breeding and disease control. This is called animal husbandry. Poultry **farming** is done to raise domestic fowls. Poultry production includes egg production and broiler production for poultry meat. Fish may be obtained from marine resources as well as inland resources Composite fish culture system is commonly used for fish **farming**.2004



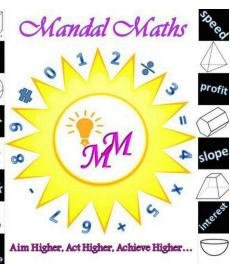
21. Health and diseases

As defined by World Health Organization (WHO), health is “a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity”. While illness and disease are at times used interchangeably, these in fact, are different from each other. Disease refers to a biomedically defined deviation from norms of body function or structure, whereas, illness is the experience of this deviation. However, it is not appropriate to conclude that any one being merely free from illness or disease is healthy.

Let us understand how communicable diseases are spread. These diseases are caused by certain infectious agents which may be bacteria or viruses. These are capable of being transmitted from person to person or from the environment to person.

The modes of transmission can be classified as direct and indirect transmission. As we have studied in our earlier classes, direct transmission of diseases takes place as Direct contact or touching; Droplet infection; Contact with soil; Inoculation into skin or mucosa; etc. Communicable diseases are also transmitted indirectly in the following ways that are popularly known as ‘5Fs’- flies, fingers, fomites (material capable of carrying infections, like towels, handkerchiefs etc.), food and fluid. Some diseases are spread through water, food, ice, blood and body tissues and organs. For example, typhoid, diarrhea, polio, intestinal parasites and infective hepatitis. Flies contaminate food and other eatables.

The measures help in prevention and control the spread of communicable diseases are Food and water hygiene, Environmental sanitation Vaccines, Treatment of diseases using medicines, Isolation of patients with communicable diseases, It is important to make people aware about communicable diseases, their causes and modes of spread. People should also be made aware of their responsibilities towards control of communicable diseases, e.g. ensuring use of safe water, healthy food and proper management of garbage and waste disposal.

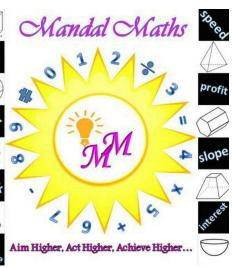


22. Health and diseases (continue...)

The non-communicable diseases may occur due to genetic and lifestyle factors. When these are caused by an unhealthy lifestyle, these diseases are also called lifestyle diseases. Risk factors of non-communicable diseases include lack of physical exercises, poor dietary habits, inadequate sleep, stress and habits like smoking, taking alcohol and tobacco chewing. In India, non-communicable diseases cause major health problems. These diseases cause disability, loss of income, disruptions in family environment and poor quality of life in the most productive years. We are going to have the highest incidence of diabetes in the world by 2020. Non-communicable diseases can be prevented in the following by Healthy diet; Adequate sleep; Regular exercise; Mental relaxation; Avoiding the use of tobacco, alcohol and drugs; Antioxidants, etc.

Ayurveda is the science of life and health, developed in India since ages. It lays emphasis on prevention and promotion of health in addition to curing the diseases. The treatment under Ayurveda can be successfully used in early stages of diabetes, liver-disorders, skin diseases, stress, insomnia (sleeplessness) and anorectal-diseases. Some specialized Ayurvedic treatments can be helpful in diseases like joint-pains, neuromuscular diseases and paralysis.

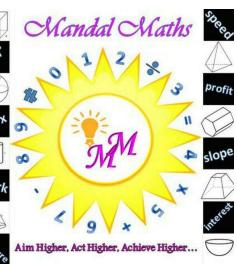
Both Homeopathy and Unani systems of medicine are also used in the treatment of non-communicable diseases. Homeopathy is that system of medicine which is based on the nature's law of cure. It is a safe and effective method of treatment. It helps in increasing the immunity of the body and offers in many cases a long lasting cure. Unani system of medicine is also the natural way of treatment with the help of herbal medicines. According to this system, the health of a person depends on the balance of four elements in the body. These are Dam (blood), Balgham (phlegm), Safra (yellow bile), and Sanda (black bile). The Unani medicines are given to the person suffering from a disease to promote an equilibrium of these elements in the body.



23. Growth: A Natural Phenomenon

Let us understand what is growth? Growth may be defined as the quantitative increase in size or mass. When weight is measured in kilograms and height in centimeters from time to time, we can know how much growth has occurred in a child. When the organs of the body grow, the number, the size and the weight of their cells increase. Growth can be measured in terms of the change in length, width, depth and volume in a specific time period. Although growth is a characteristic of living beings, in all living beings, the rate of growth also depends on nutrition and living conditions, including the environment at home.

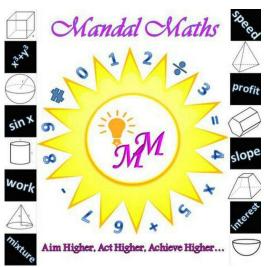
Growth, development and maturation occur side by side. Growth is a quantitative increase in size through increase in number of cells or elongation of cells. Development may be defined as the progression of changes, both qualitative and quantitative, which lead to an undifferentiated mass of cells to a highly organized state. Maturation is a measure of functional capacity. For example, a child begins to speak by making unintelligible sounds. Then, slowly it acquires the capacity for speaking in a manner, which is easily understood by others. Another example of maturation is when a child begins to crawl and then matures to a state of walking on two legs. Similarly, organs of reproduction reach maturity at the end of puberty. Although age related events of growth, development and maturation in human beings are mostly the same in all cultures, however, some variations do exist. This is because growth is affected by both genetic and the environmental factors. Growth is also influenced by the socio cultural context. For example, in the economically backward families, the growth of family members gets stunted due to undernourishment. But even in economically sound households, the members may not be taking a nutritious diet. Many children who eat junk food all the time become obese. In fact, growth and development of a human being is a result of a combination of heredity and environment.



24. Self-Concept and Self-Esteem

Growth and development during adolescence do affect self-concept and self-esteem. The concept of 'self' becomes evident in boys and girls as they enter their 'teen' age. Several changes begin to occur in their body and psyche. As a result, the attention is focused towards 'self'. As the concept of 'self' develops, it makes the teenager develop less dependence on parents. Self-image becomes important not only for oneself but also in the eyes of others. Grooming oneself to look beautiful or handsome to others is always at the back of the mind of young boys and girls. Support and guidance from parents and teachers and friendship with peers help in developing 'positive self-esteem'. Self-esteem is also a kind of self-recognition. The consequences of low self-esteem and self-image are detrimental to efficiency. Try to have high self-esteem and a positive self-image.57
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For developing self-confidence and self-esteem, it is essential to have a stress-free environment. Adolescence is a period of losses i.e. loss of childhood, loss of sexual innocence, loss of freedom from responsibility. Adolescents need parental support to cope with these losses. Psychological security depends a lot on how a boy or girl was valued by the family as a child. You may have seen that teenagers who have experienced encouragement from others with respect to values and parental expectations tend to be psychologically more secure than those who are subjected as children to shame and punishment. A psychologically secure teenager is able to concentrate on studies, have respect for parents, spend time judiciously on hobbies and establish healthy relationships. Adolescence has to be viewed as a period of gains too. The adolescent attains a beautiful physique, figure and face. Another gain is the maturity of brain, which leads to rational thinking and better understanding of subjects and issues. But to ignore the losses and carry the gains forward, support from parents/guardians, teachers, and peers goes a long way in helping the youngsters cope with changes occurring during adolescence.

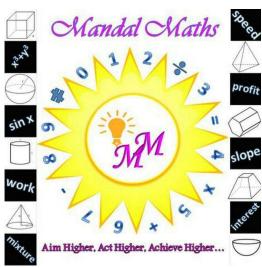


25. Psychological Insecurity

Psychological insecurity expresses as anxiety and depression and in severe cases may result in psychosis, which is a mental disorder. Psychologically insecure individuals may even attempt suicide.196

Anxiety is not abnormal. Everyone gets the feeling of anxiety sometime or the other. Anxiety is an apprehension of something unpleasant or some danger. It causes mental discomfort and pain. It may sometimes prove to be useful, for example, before an examination or competition. But an abnormally high level of anxiety is counterproductive as it distracts and lowers the span of attention. Adolescents sometimes panic out of anxiety without knowing the reason. They may even feel a fear of failure in future. This makes them tense and tired. Anxiety may manifest as a need to get medical treatment for an imaginary sleep disorder or some other physical complaint. It may also manifest as over breathing (hyperventilation syndrome). Anxiety may even be due to separation from parents or even for having to attend school out of compulsion or due to sex drive. Adolescents may try to get out of anxiety by self-help. The right treatment for anxiety lies in seeking help from parents, teachers, counselors and even friends.1215

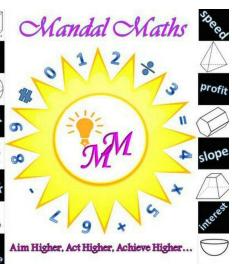
Feeling ‘sad’ or low is common among the adolescents. If the feeling is short-lived there is no problem. But sometimes symptoms of depression show up as social withdrawal, need to weep, eating and sleeping problems, and feeling of dejection and hopelessness. Depression at times leads to hostility towards parents, society and peers. ‘Anger’ is sometimes a psychological reaction for fighting depression. If an individual faces pressure, he/she should be empowered to access or seek information, advice, support through appropriate communication from significant adults such as the parents, teachers, elders, relatives, peers, counselors and health professionals. The best way to get out of depression is to engage oneself in various types of physical activities and hobbies. Hope you all will have Psychological security.2038



26. Physical Education

As we know, education, particularly school education, aims at the holistic development of children. It provides students with opportunities to grow and develop as adults to be useful for the society. It is important for us to know that one of the most important requirements for growing into healthy adulthood is the physical growth which supports cognitive development. It is, therefore, necessary that all children get adequate opportunity to participate in free play, informal and formal games, sports and yoga activities. It is in this context that health has been made a significant component of the subject of Physical Education in the school education system of the country. The subject "Health and Physical Education" adopts a holistic definition of health within which physical education and yoga contribute to the physical, social, emotional and mental development of a child.

In view of the above, the meaning of physical education becomes a little different from what is commonly understood. Physical education comprises holistic education for the development of personality of the child to its fullest and perfection in body, mind and spirit through engaging in regular physical activities. Physical education through the medium of physical activities helps individuals to attain and maintain physical fitness. It contributes to physical efficiency, mental alertness and the development of qualities like perseverance, team spirit, leadership and obedience to rules. It develops personal and social skills among the learners and makes a positive impact on their physical, social, emotional and mental development. It also contributes to the total health of learners and the community. Physical education thus, can be defined as a subject that is not only focused on physical fitness but is also concerned with development of a number of skills, abilities and attitudes for leading a healthy lifestyle. It inculcates values like cooperation, respect to others, loyalty, self-confidence, winning with grace and losing with hope.



27. Scope of Physical Education

Physical education has evolved as a multi-disciplinary subject over time and its scope is not confined to physical fitness and knowing the rules of games and sports. It includes many topics which belong to other subjects like science, biology, genetics, psychology and sociology.67
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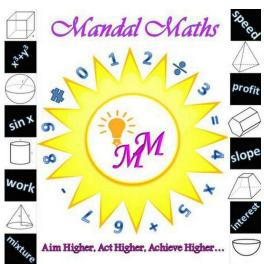
Mechanical Aspects: The concepts regarding laws of motion, lever, force and its generation, maintenance of equilibrium, centre of gravity and its impact on movements, law of acceleration, speed and its development form important content areas of physical education.338
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Biological Contents: The areas of heredity and environment, growth and development, organs and systems, understanding of joints classification, and possible movements around these joints, muscles and their properties, effect of exercise on various systems of the body are linked to physical activities.605
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Health Education and Wellness Contents: The concept of hygiene, knowledge about various communicable and non-communicable diseases, problems relating to health and their prevention, proper nutrition and balanced diet, community health, school health service programme, assessment of health status, prevention, safety and first aid for common injuries are included in the scope of physical education.912
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Psycho-social Content: Psycho-social aspect of physical education extends to the study of areas regarding individual differences, personality development, learning of various skills, motivation and its techniques, anxiety management, ethical and social values, group dynamics, cooperation, cohesiveness and learning.1314
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Talent Identification and Training Content: Physical education includes contents with regard to talent identification, development of components in relation to specific sport, understanding of various types of activities like aerobic, anaerobic, rhythmic and calisthenics. Training programmes, learning and perfection of various movements, sport skills, techniques and tactical patterns, warming up, load adaptation, recovery and cooling down are also a part of physical education.1628
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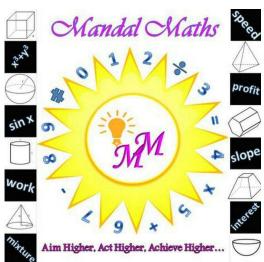
28. Methodology of teaching-learning

It is generally believed that the methodology of teaching learning is the concern of teachers only. Learners have little or nothing to do with it.73
But this is not true. The teaching and learning methods are concerns of learners as well. Knowing and understanding that how different subjects are taught are important for the learners of all subjects, but it has more relevance for the learners of physical education. When we talk about you as learners of physical education, we mean that you have actually participated in the subject area, rather than merely studied it. It needs a suitable learning environment and a positive will for participation. As you now know, physical education does not mean organisation of a few sports and games activities, involving only a selected number of students, and that too occasionally. The following two paragraphs are significant for the appreciation of this subject and the need for adopting appropriate teaching – learning methodology:

Physical education is necessary to ensure participation of all children in free play, informal and formal games and sports activities. All students must be involved in health and physical education activities. Those who choose to excel in games and sports need to be provided adequate opportunity.

Involvement of all learners means that even those students need to be involved, who are at the risk of marginalisation, for instance, who are differently abled. Such involvement will empower them to overcome the sense of helplessness, inferiority and stigma. Differences between students must be viewed as resource for supporting learning rather than as a problem. Inclusion in education is one of the components of inclusion in society.

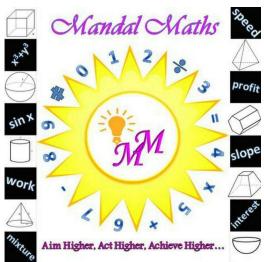
Various methodologies are being employed and efforts are on to develop innovative teaching learning methodologies, one such methodology known as PEC-India Methodology has been developed. It is the outcome of a joint initiative of the British Council and the Ministry of Human Resource Development, Government of India.



29. Components of Fitness

Cardio-respiratory endurance reflects the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity. To improve your cardio-respiratory endurance, try activities that keep your heart rate elevated at a safe level for a sustained length of time. Muscular Strength is the amount of force applied on muscle or muscle groups, is able to exert for one maximal effort (contraction). The key to making your muscles stronger is working them against resistance, whether that be from weights or gravity. If you want to gain muscle strength, try exercises such as lifting weights (under proper supervision). Muscular Endurance is the ability of a muscle or muscle group to exert force against a submaximal load for a given length of time (or number of repetition) before fatiguing to the point of failure. Body Composition refers to the proportion of team body mass to body fat, it includes amount of muscle, fat, bone, and other vital parts of the body. Body composition is important to be considered for health and managing the body fat. Flexibility is the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life. If you want to improve your flexibility, try yoga, gymnastics and basic stretching exercise programme.

Agility is the ability to change and control the direction and position of the body while maintaining a constant, rapid motion. Balance is the ability to control or stabilize the body when a person is standing still or moving. Coordination is the ability to use the senses together with body parts during movement. Speed is the ability to move your body or parts of your body swiftly. Many sports rely on speed to gain advantage over opponents. Power is the ability to move the body parts swiftly while applying the maximum force of the muscles. Power is a combination of both speed and muscular strength. Reaction Time is the ability to reach or respond quickly to what you hear, see or feel.



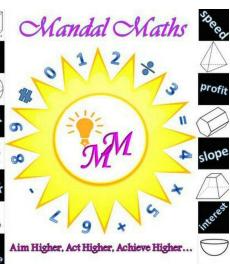
30. Warming up and Cooling Down

Warming up is usually performed before participating in any games and sports and physical activities. It is important to keep oneself free from injury, pain and how to avoid fatigue. While warming up prepares your body for intense exercise, whereas cooling down helps bring it back to near normal after rigorous activity.

Warming Up: Muscle stiffness is thought to be directly related to muscle injury and therefore, the warming up should be aimed at reducing muscle stiffness. Warming up should consist of a gradual increase in physical activity for individuals for increasing joint mobility, stretching and various ways of sports related activities. One should warm-up approximate 8-12 minutes or per specific requirements which include running, stretching of wrists, elbows, shoulders, neck, trunk, hip, knees, ankles joints.

Cooling Down: Once you are through with the workout and you reach the end of the game, it is equally important to ensure that the body cools down. Cooling down should ideally consist of: five to ten minute walk or light jog as it cools down the body temperature and relaxes the muscles; about ten minutes of static stretching exercises that include chest stretch, biceps stretch, hamstring stretch, calf stretch, hip and thigh stretch, front of trunk stretch and quadriceps stretch. Each stretch should not take more than 10 to 30 seconds. Intensity and duration of warming up and cooling down should vary according to the nature of workout or game. The more rigorous the workout or game, the more rigorous should be the warm up and cool down.

Benefits warming up and cooling down Warming up is a low intensity dynamic exercise and static stretch performed to gradually prepare the body for further exercises and to prevent damage to skeletal muscles commutative tissue and heart. Cool down exercise used to prevent rapid drop in arterial blood pressure. After completion of vigorous exercise, the person should move for few minutes until his/her breathing come down to near normal.

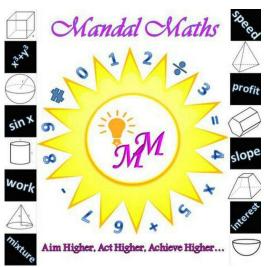


31. Sports Ethics

Before discussing various dimensions of sports ethics, it is66
important to understand the meaning of ethics. Ethics, morals and values133
are used interchangeably in everyday language, though these terms are203
not synonyms. The concept of ethics is technically understood as a270
branch of philosophy that defines what is good for the individual and340
society and establishes the nature of obligations, or duties, that people414
owe themselves and to one another. But without going into the476
complexities of this concept, it is relevant to understand ethics as the549
practice of making principled choices between right and wrong: a code619
of conduct that guides human behaviour, a set of standards that guides690
our conduct. It is generally viewed as the system or set of rules, norms or766
laws by which attitudes and actions are determined to be either “right or840
wrong”. The fundamental problem of ethics is determining what902
constitutes proper conduct. It defines how individuals, professionals in975
different fields, organisations, associations, federation and corporations1050
choose to interact with one another.1087
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In view of the above, sports ethics is a positive concept that guides human action in sports. It is defined as the code of conduct for promoting and ensuring healthy sporting practices. Sports ethics signifies not just a certain form of behaviour but also a particular way of thinking. It promotes fair play among children and young persons via educational and preventive measures and encourages the dissemination of good practices to promote diversity in sport and combat all forms of discrimination.

Every child and young person has the right to play sport and games to gain satisfaction from the experience. The code of sports ethics applies to all levels of skills and commitment, recreational activities as well as competitive sport. It involves the elimination of all types of negative behaviour on and off the field. More importantly, it promotes equity and sporting excellence. Sports ethics is also focused on equity in sport which should be an expression of human excellence.

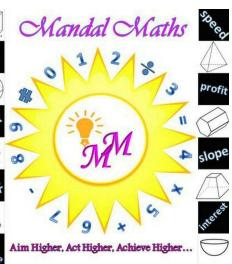


32. Solid Waste

The garbage that we generate every day has not only increased in volume phenomenally, but has also changed its composition due to changes in our lifestyles and consumption patterns. For instance, there is now an increasing use of non-biodegradable materials such as plastics, metals and glass, specifically in urban areas. Technological advancement has further brought in an increasing use of electronic items and gadgets. These are useful for us, but when discarded (known as E-Waste) they can be harmful to the environment and human health, particularly for the workers associated with this occupation.

In addition, we seem to have lost our aesthetic and civic sense, and carelessly litter garbage around on the roads, in the market-place, in open drains, ponds, rivers, seas, and so on. In fact, we keep throwing a lot of garbage every day. Have you ever thought what will happen if the garbage is not removed from our homes and surroundings? Where does this garbage ultimately go and what is done with it? If proper measures for disposal and sanitation are not followed, how will garbage affect our environment and health?

Open and unattended garbage is a common sight in the market, streets or in the vicinity of our homes. Most often, it emits such a foul smell that we have to cover our noses with a cloth. Have you ever stopped to think how unattended garbage can affect our health and our environment? If you observe carefully, you will notice that when garbage is allowed to collect in the open for a long time, it attracts flies, cockroaches and other insects. It also attracts rats and stray dogs. In fact, moist or fermenting garbage, particularly when organic waste such as kitchen waste is thrown, becomes a perfect breeding place for flies. When we eat the food, which has been contaminated by these flies, we are likely to fall ill. Water and food borne diseases such as dysentery, cholera and gastroenteritis are some of the diseases that can be transmitted by flies. Moreover, since accumulated garbage emits foul smell, it also causes air pollution.

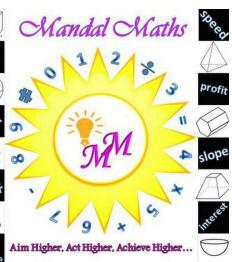


33. First Aid

We all observe that when individuals fall ill or are injured, they are taken to hospitals or doctors for treatment. But it takes time to reach them, during which if some initial care is taken, it helps treatment of such individuals and in many cases saves their lives. We also observe that some of the minor illnesses or injuries are cured by taking such initial care. However, this care cannot be taken unless we are aware and trained in first-aid. In the present lesson we shall discuss various aspects of first aid and safety.

First aid is the provision of initial care for an illness or injury. It is usually performed by a non-expert person to a sick or injured person until appropriate medical treatment can be accessed in a hospital or by going to a doctor. Certain self-limiting illnesses or minor injuries may not require further medical care after the first aid intervention. It generally consists of a series of simple and in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment. The First aid training, therefore, is of value in both preventing and treating sudden illness or accidental injury and in caring for large number of persons caught in a natural disaster. It is a measure both for self help as well as for the help of others. If you, as a first-aider, are prepared to help others, you are better able to care for yourself in case of injury or sudden illness. Even if your own condition keeps you from caring for yourself, you can direct others in carrying out correct procedures to follow on your behalf.

The main objective of first aid is not to cure, but to ensure safety until the patient or affected person accesses specialised treatment. It is the initial assistance or care of a suddenly sick or injured person. It is the care administered by a person as soon as possible after an illness or accident. It is this prompt care and attention prior to the arrival of the ambulance that sometimes creates the difference between life and death, or between a full or partial recovery.



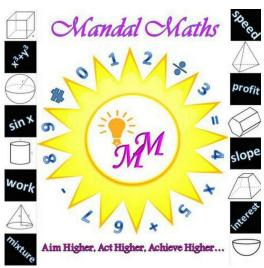
34. Protection of Natural Resources

The environment is a key determinant of social and individual health. You may be aware that many of our health problems are caused by environmental degradation. Exposure to air, water and soil pollution, chemicals in the environment, or noise, can cause cancer, respiratory, cardiovascular and communicable diseases, as well as some other serious health disorders. Although environmental degradation can affect the health of the whole population, some groups are particularly vulnerable, including children, pregnant women, the elderly and persons with pre existing family history of certain diseases.

As you are aware that number of factors contribute to environmental degradation, but the most important factor is the misuse and over use of natural resources. All that the nature has provided to us such as soil, air, water, minerals, sunshine (sunlight), animals and plants, etc., are known as natural resources. Human beings use these directly or indirectly for their survival and welfare. The problem lies in how these natural resources are distributed and used. If at any time one person or a group of people uses more than their fair share of resources, an imbalance is created. This leads to environmental health problems for others.

It is, therefore, essential for every individual to ensure that natural resources are protected and are not misused or over used, so that social and individual health is not affected adversely. In India, we have had a great tradition of environmental conservation. We have been taught since ages to respect nature and to recognize that all forms of life - human, animal and plant are closely interrelated. Disturbance in one gives rise to an imbalance in others. Our Constitution also has provisions for protection of environment.

Natural resources can be protected in two ways. Efforts are needed to ensure that natural resources are used judiciously according to the needs of the present generation, and of future generations. Secondly, care needs to be taken so that natural resources are properly maintained and sustained.

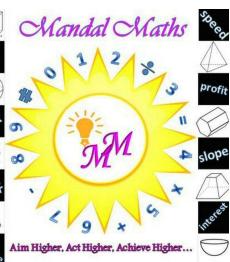


35. Adolescent Friendly Health Services

India is the second most populous country in the world with a total population of over 1.21 billion according to the 2011 Census. Adolescents (10–19 years) constitute over one-fifth of the total population, and their number is estimated to be about 243 million. They represent a resource for the future whose potential needs to be nurtured in a positive manner. The adolescents are considered to be healthy as a group; however, they do have a range of health problems that cause a lot of morbidity as well as mortality. In spite of specific health problems, it is a common observation that the existing health services do not cater to the specific problems of adolescents. Moreover, it is a challenge for the health sector to respond to their needs adequately by offering services in a friendly manner in a non-threatening environment. In this chapter, an attempt has been made to discuss the health needs of adolescents, the status of existing adolescent friendly health services and the manner in which these services can be made available to adolescents so that these can be adequately utilised by them.

As you have realised while going through the chapters ‘Growing up with Confidence’ and ‘Diet for Healthy Living’, adolescence is the most significant period in the life of human beings. It is imperative, therefore, that the needs of adolescents be recognised and met adequately. Their health needs are: Nutritional Needs, Reproductive and Sexual Health Needs, Mental Health Concerns, Substance Abuse, Accidental Injuries.

As we have seen, the health needs of young people are special in many respects. Therefore, there is a need to establish special services for them. These services are called “Adolescent Friendly Health Services” (AFHS). They have a specialised approach for giving adolescents preventive, promotive and curative health care. These services are mostly run by the government and in them diagnostic, treatment, counselling and other facilities related to health are offered for free or at a very minimal charge.

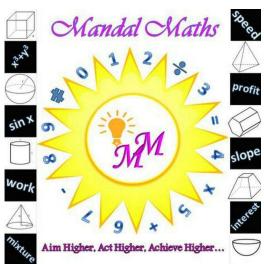


36. India and the World

The Indian landmass has a central location between the East and the West Asia. India is a southward extension of the Asian continent.63
 The trans Indian Ocean routes, which connect the countries of Europe in the West and the countries of East Asia, provide a strategic central location to India. Note that the Deccan Peninsula protrudes into the Indian Ocean, thus helping India to establish close contact with West Asia, Africa and Europe from the western coast and with Southeast and East Asia from the eastern coast. No other country has a long coastline on the Indian Ocean as India has and indeed, it is India's eminent position in the Indian Ocean, which justifies the naming of an Ocean after it.111
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India's contacts with the World have continued through ages but her relationships through the land routes are much older than her maritime contacts. The various passes across the mountains in the north have provided passages to the ancient travellers, while the oceans restricted such interaction for a long time. These routes have contributed in the exchange of ideas and commodities since ancient times. The ideas of the Upanishads and the Ramayana, the stories of Panchtantra, the Indian numerals and the decimal system thus could reach many parts of the world. The spices, muslin and other merchandise were taken from India to different countries. On the other hand, the influence of Greek sculpture, and the architectural styles of dome and minarets from West Asia can be seen in different parts of our country.

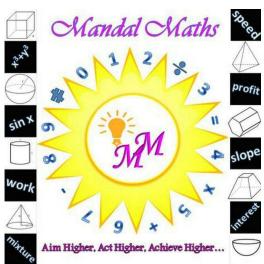
India shares its land boundaries with Pakistan and Afghanistan in the northwest, China (Tibet), Nepal and Bhutan in the north and Myanmar and Bangladesh in the east. Our southern neighbours across the sea consist of the two island countries, namely Sri Lanka and Maldives. Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar, while Maldives Islands are situated to the south of the Lakshadweep Islands. India has had strong geographical and historical links with her neighbours.



37. The Peninsular Plateau

The Peninsular plateau is a tableland composed of the old crystalline, igneous and metamorphic rocks. It is formed due to the breaking and drifting of the Gondwana land and thus, making it a part of the oldest landmass. The plateau has broad and shallow valleys and rounded hills. This plateau consists of two broad divisions, namely, the Central Highlands and the Deccan Plateau. The part of the Peninsular plateau lying to the north of the Narmada river, covering a major area of the Malwa plateau, is known as the Central Highlands. The Vindhyan range is bounded by the Satpura range on the south and the Aravalis on the northwest. The further westward extension gradually merges with the sandy and rocky desert of Rajasthan. The flow of the rivers draining this region, namely the Chambal, the Sind, the Betwa and the Ken is from southwest to northeast, thus indicating the slope. The Central Highlands are wider in the west but narrower in the east. The eastward extensions of this plateau are locally known as the Bundelkhand and Baghelkhand. The Chotanagpur plateau marks the further eastward extension, drained by the Damodar river.

The Deccan Plateau is a triangular landmass that lies to the south of the river Narmada. The Satpura range flanks its broad base in the north, while the Mahadev, the Kaimur hills and the Maikal range form its eastern extensions. Locate these hills and ranges in the Physical map of India. The Deccan Plateau is higher in the west and slopes gently eastwards. An extension of the Plateau is also visible in the northeast, locally known as the Meghalaya, Karbi-Anglong Plateau and North Cachar Hills. It is separated by a fault from the Chotanagpur Plateau. Three prominent hill ranges from the west to the east are the Garo, the Khasi and the Jaintia Hills. The Western Ghats and the Eastern Ghats mark the western and the eastern edges of the Deccan Plateau respectively. Western Ghats lie parallel to the western coast. They are continuous and can be crossed through passes only.



38. Physical Features of India

The Indian desert lies towards the western margins of the Aravali Hills. It is an undulating sandy plain covered with sand dunes. This region receives very low rainfall below 150 mm per year. It has arid climate with low vegetation cover. Streams appear during the rainy season. Soon after they disappear into the sand as they do not have enough water to reach the sea. Luni is the only large river in this region. Barchans (crescent-shaped dunes) cover larger areas but longitudinal dunes become more prominent near the Indo-Pakistan boundary.65

Hills. It is an undulating sandy plain covered with sand dunes. This134

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Barchans (crescent-shaped dunes) cover larger areas but longitudinal483

dunes become more prominent near the Indo-Pakistan boundary.544

The Peninsular plateau is flanked by stretch of narrow coastal607

strips, running along the Arabian Sea on the west and the Bay of Bengal679

on the east. The western coast, sandwiched between the Western Ghats748

and the Arabian Sea, is a narrow plain. It consists of three sections. The823

northern part of the coast is called the Konkan (Mumbai - Goa), the891

central stretch is called the Kannad Plain, while the southern stretch is965

referred to as the Malabar coast. The plains along the Bay of Bengal are1038

wide and level. In the northern part, it is referred to as the Northern1110

Circar, while the southern part is known as the Coromandel Coast. Large1182

rivers, such as the Mahanadi, the Godavari, the Krishna and the Kaveri1253

have formed extensive delta on this coast. Lake Chilika is an important1325

feature along the eastern coast.1358

A detailed account of the different physiographic units highlights1425

the unique features of each region. It would, however, be clear that each1499

region complements the other and makes the country richer in its natural1572

resources. The mountains are the major sources of water and forest1639

wealth. The northern plains are the granaries of the country. They1706

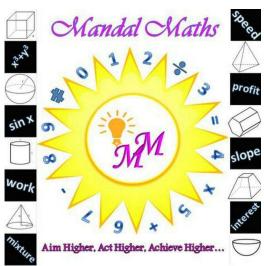
provide the base for early civilisations. The plateau is a storehouse of1779

minerals, which has played a crucial role in the industrialisation of the1853

country. The coastal region and island groups provide sites for fishing1925

and port activities. Thus, the diverse physical features of the land have1999

immense future possibilities of development.2044



39. Drainage System in India

The term drainage describes the river system of an area. Look at the physical map. You will notice that small streams flowing from different directions come together to form the main river, which ultimately drains into a large water body such as a lake or a sea or an ocean. The area drained by a single river system is called a drainage basin. A closer observation on a map will indicate that any elevated area, such as a mountain or an upland, separates two drainage basins. Such an upland is known as a water divide.

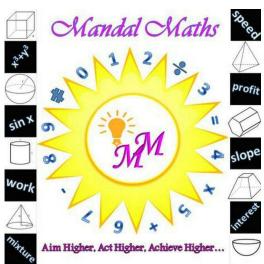
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The drainage systems of India are mainly controlled by the broad relief features of the subcontinent. Accordingly, the Indian rivers are divided into two major groups: the Himalayan rivers; and the Peninsular rivers.584
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Apart from originating from the two major physiographic regions of India, the Himalayan and the Peninsular rivers are different from each other in many ways. Most of the Himalayan rivers are perennial. It means that they have water throughout the year. These rivers receive water from rain as well as from melted snow from the lofty mountains. The two major Himalayan rivers, the Indus and the Brahmaputra originate from the north of the mountain ranges. They have cut through the mountains making gorges. The Himalayan rivers have long courses from their source to the sea.

They perform intensive erosional activity in their upper courses1376
and carry huge loads of silt and sand. In the middle and the lower1443
courses, these rivers form meanders, oxbow lakes, and many other1508
depositional features in their floodplains. They also have well developed1582
deltas.1590

A large number of the Peninsular rivers are seasonal, as their flow is dependent on rainfall. During the dry season, even the large rivers have reduced flow of water in their channels. The Peninsular rivers have shorter and shallower courses as compared to their Himalayan counterparts. However, some of them originate in the central highlands and flow towards the west. Most of the rivers of peninsular India originate in the Western Ghats and flow towards the Bay of Bengal.1658
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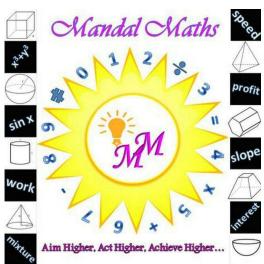


40. Lakes

You may be familiar with the valley of Kashmir and the famous Dal Lake, the house boats and shikaras, which attract thousands of tourists every year. Similarly, you may have visited some other tourist spot near a lake and enjoyed boating, swimming and other water games.

India has many lakes. These differ from each other in size and other characteristics. Most lakes are permanent; some contain water only during the rainy season, like the lakes in the basins of inland drainage of semi-arid regions. There are some lakes which are the result of the action of glaciers and ice sheets, while others have been formed by wind, river action and human activities. A meandering river across a floodplain forms cut-offs that later develops into ox-bow lakes. Spits and bars form lagoons in the coastal areas, e.g. the Chilika lake, the Pulicat lake and the Kolleru lake. Lakes in the region of inland drainage are sometimes seasonal; for example, the Sambhar lake in Rajasthan, which is a salt water lake. Its water is used for producing salt. Most of the freshwater lakes are in the Himalayan region. They are of glacial origin. In other words, they formed when glaciers dug out a basin, which was later filled with snowmelt. The Wular lake in Jammu and Kashmir, in contrast, is the result of tectonic activity. It is the largest freshwater lake in India. The Dal lake, Bhimtal, Nainital, Loktak and Barapani are some other important freshwater lakes. Apart from natural lakes, the damming of the rivers for the generation of hydel power has also led to the formation of lakes, such as Guru Gobind Sagar (Bakra Nangal Project).

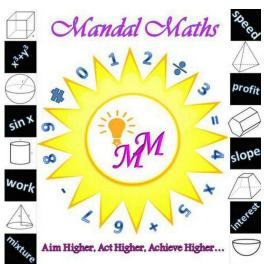
Lakes are of great value to human beings. A lake helps to regulate the flow of a river. During heavy rains, it prevents flooding and during the dry season, it helps to maintain an even flow of water. Lakes can also be used for developing hydel power. They moderate the climate of the surroundings; maintain the aquatic ecosystem, enhance natural beauty, help develop tourism and provide recreation.



41. Climate

Climate refers to the sum total of weather conditions and variations over a large area for a long period of time (more than thirty years). Weather refers to the state of the atmosphere over an area at any point of time. The elements of weather and climate are the same, i.e. temperature, atmospheric pressure, wind, humidity and precipitation. You may have observed that the weather conditions fluctuate very often even within a day. But there is some common pattern over a few weeks or months, i.e. days are cool or hot, windy or calm, cloudy or bright, and wet or dry.

There are six major controls of the climate of any place. They are:
latitude, altitude, pressure and wind system, distance from the sea
(continentality), ocean currents and relief features. Due to the curvature
of the earth, the amount of solar energy received varies according to
latitude. As a result, air temperature generally decreases from the
equator towards the poles. As one goes from the surface of the earth to
higher altitudes, the atmosphere becomes less dense and temperature
decreases. The hills are therefore cooler during summers. The pressure
and wind system of any area depend on the latitude and altitude of the
place. Thus it influences the temperature and rainfall pattern. The sea
exerts a moderating influence on climate: As the distance from the sea
increases, its moderating influence decreases and the people experience
extreme weather conditions. This condition is known as continentality
(i.e. very hot during summers and very cold during winters). Ocean
currents along with onshore winds affect the climate of the coastal areas,
For example, any coastal area with warm or cold currents flowing past it,
will be warmed or cooled if the winds are onshore. Finally, relief too
plays a major role in determining the climate of a place. High mountains
act as barriers for cold or hot winds; they may also cause precipitation if
they are high enough and lie in the path of rain-bearing winds. The
leeward side of mountains remains relatively dry.

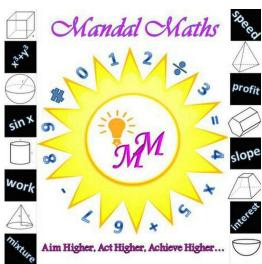


42. Types of vegetation

The major types of vegetation may be identified in our country62
are: Tropical Evergreen Forests; Tropical Deciduous Forests; Tropical132
Thorn Forests and Scrubs; Montane Forests; Mangrove Forests.193

Tropical Evergreen Forests: These forests are restricted to heavy259
rainfall areas of the Western Ghats and the island groups of320
Lakshadweep, Andaman and Nicobar, upper parts of Assam and Tamil385
Nadu coast. They are at their best in areas having more than 200 cm of456
rainfall with a short dry season. The trees reach great heights up to 60529
metres or even above. Since the region is warm and wet throughout the599
year, it has a luxuriant vegetation of all kinds - trees, shrubs and creepers677
giving it a multilayered structure. There is no definite time for trees to752
shed their leaves. As such, these forests appear green all the year round.827
Some of the commercially important trees of this forest are ebony,894
mahogany, rosewood, rubber and cinchona. The common animals found960
in these forests are elephant, monkey, lemur and deer. One horned1026
rhinoceroses are found in the jungles of Assam and West Bengal.1090
Besides these animals, plenty of birds, bats, sloth, scorpions and snails1164
are also found in these jungles.1197

Tropical Deciduous Forests: These are the most widespread forests1263
of India. They are also called the monsoon forests and spread over the1334
region receiving rainfall between 200 cm and 70 cm. Trees of this forest1407
type shed their leaves for about six to eight weeks in dry summer. On the1481
basis of the availability of water, these forests are further divided into1556
moist and dry deciduous. The former is found in areas receiving rainfall1629
between 200 and 100 cm. These forests exist, therefore, mostly in the1699
eastern part of the country - northeastern states, along the foothills of the1777
Himalayas, Jharkhand, West Odisha and Chhattisgarh, and on the1840
eastern slopes of the Western Ghats. Teak is the most dominant species1911
of this forest. Bamboos, sal, shisham, sandalwood, khair, kusum, arjun1982
and mulberry are other commercially important species.2037



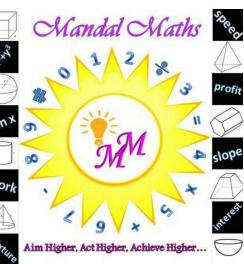
43. Wildlife

Like its flora, India is also rich in its fauna. It has approximately 90,000 animal species. The country has about 2,000 species of birds. They constitute 13% of the world's total. There are 2,546 species of fish, which account for nearly 12% of the world's stock. It also shares between 5 and 8 per cent of the world's amphibians, reptiles and mammals. The elephants are the most majestic animals among the mammals. They are found in the hot wet forests of Assam, Karnataka and Kerala. One-horned rhinoceroses are the other animals, which live in swampy and marshy lands of Assam and West Bengal. Arid areas of the Rann of Kachchh and the Thar Desert are the habitat for wild ass and camels respectively. Indian bison, nilgai (blue bull), chousingha (four-horned antelope), gazel and different species of deer are some other animals found in India. It also has several species of monkeys.

The Himalayas harbour a hardy range of animals, which survive in extreme cold. Ladakh's freezing high altitudes are a home to yak, the shaggy horned wild ox weighing around one tonne, the Tibetan antelope, the bharal (blue sheep), wild sheep, and the kiang (Tibetan wild ass). Furthermore, the ibex, bear, snow-leopard and rare red panda are found in certain pockets. In the rivers, lakes and coastal areas, turtles, crocodiles and gharials are found. The latter is the only representative of a variety of crocodile, found in the world today. Bird life in India is colourful. Peacocks, pheasants, ducks, parakeets, cranes and pigeons are some of the birds inhabiting the forests and wetlands of the country.

India is the only country in the world that has both tigers and lions. The natural habitat of the Indian lion is the Gir forest in Gujarat. Tigers are found in the forests of Madhya Pradesh, the Sundarbans of West Bengal and the Himalayan region. Leopards, too, are members of the cat family. They are important among animals of prey. To protect the flora and fauna of the country, the government has taken many steps.

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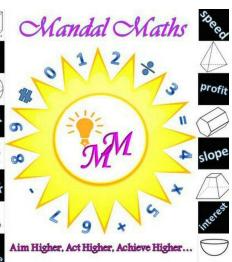
44. Events and Processes

In Section I, you will read about the French Revolution, the Russian Revolution, and the rise of Nazism. In different ways all these events were important in the making of the modern world.

Chapter I is on the French Revolution. Today we often take the ideas of liberty, freedom and equality for granted. But we need to remind ourselves that these ideas also have a history. By looking at the French Revolution you will read a small part of that history. The French Revolution led to the end of monarchy in France. A society based on privileges gave way to a new system of governance. The Declaration of the Rights of Man during the revolution, announced the coming of a new time. The idea that all individuals had rights and could claim equality became part of a new language of politics.

In Chapter II, you will read about the coming of socialism in Europe, and the dramatic events that forced the ruling monarch, Tsar Nicholas II, to give up power. The chapter will tell you about the changes that were initiated by the new Soviet government, the problems it faced and the measures it undertook. While Soviet Russia pushed ahead with industrialisation and mechanisation of agriculture, it denied the rights of citizens that were essential to the working of a democratic society. The ideals of socialism, however, became part of the anti-colonial movements in different countries.

Chapter III will take you to Germany. It will discuss the rise of Hitler and the politics of Nazism. You will read about the children and women in Nazi Germany, about schools and concentration camps. You will see how Nazism denied various minorities a right to live, how it drew upon a long tradition of anti-Jewish feelings to persecute the Jews, and how it waged a relentless battle against democracy and socialism. But the story of Nazism's rise is not only about a few specific events, about massacres and killings. It is about the working of an elaborate and frightening system which operated at different levels.

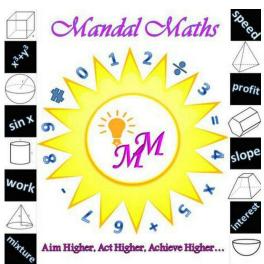


45. A Growing Middle Class

In the past, peasants and workers had participated in revolts against increasing taxes and food scarcity. But they lacked the means and programmes to carry out full-scale measures that would bring about a change in the social and economic order. This was left to those groups within the third estate who had become prosperous and had access to education and new ideas.61
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The eighteenth century witnessed the emergence of social groups, termed the middle class, who earned their wealth through an expanding overseas trade and from the manufacture of goods such as woolen and silk textiles that were either exported or bought by the richer members of society. In addition to merchants and manufacturers, the third estate included professions such as lawyers or administrative officials. All of these were educated and believed that no group in society should be privileged by birth. Rather, a person's social position must depend on his merit. These ideas envisaging a society based on freedom and equal laws and opportunities for all, were put forward by philosophers such as John Locke and Jean Jacques Rousseau. In his Two Treatises of Government, Locke sought to refute the doctrine of the divine and absolute right of the monarch. Rousseau carried the idea forward, proposing a form of government based on a social contract between people and their representatives. In The Spirit of the Laws, Montesquieu proposed a division of power within the government between the legislative, the executive and the judiciary. This model of government was put into force in the USA, after the thirteen colonies declared their independence from Britain.433
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The ideas of these philosophers were discussed intensively in salons and coffee houses and spread among people through books and newspapers. These were frequently read aloud in groups for the benefit of those who could not read and write. The news that Louis XVI planned to impose further taxes to be able to meet the expenses of the state generated anger and protest against the system of privileges.1702
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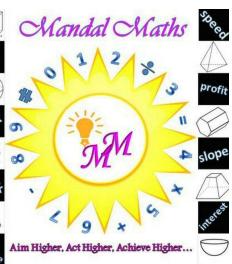


46. Rights of Women

Most women of the third estate had to work for a living. They worked as seamstresses or laundresses, sold flowers, fruits and vegetables at the market, or were employed as domestic servants in the houses of prosperous people. Most women did not have access to education or job training. Working women had also to care for their families, that is, cook, fetch water, queue up for bread and look after the children. Their wages were lower than those of men. In order to discuss and voice their interests women started their own political clubs and newspapers. About sixty women's clubs came up in different French cities. The Society of Revolutionary and Republican Women was the most famous of them. One of their main demands was that women enjoy the same political rights as men.

In the early years, the revolutionary government did introduce laws that helped improve the lives of women. Together with the creation of state schools, schooling was made compulsory for all girls. Their fathers could no longer force them into marriage against their will. Marriage was made into a contract entered into freely and registered under civil law. Divorce was made legal, and could be applied for by both women and men. Women could now train for jobs, could become artists or run small businesses.

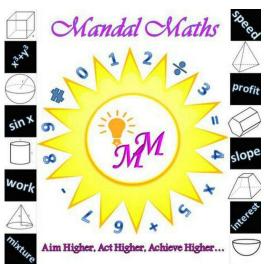
Women's struggle for equal political rights, however, continued. During the Reign of Terror, the new government issued laws ordering closure of women's clubs and banning their political activities. Many prominent women were arrested and a number of them executed. Women's movements for voting rights and equal wages continued through the next two hundred years in many countries of the world. The fight for the vote was carried out through an international suffrage movement during the late nineteenth and early twentieth centuries. The example of the political activities of French women during the revolutionary years was kept alive as an inspiring memory. It was finally in 1946 that women in France won the right to vote.



47. The Revolution and Everyday Life

Can politics change the clothes people wear, the language they speak or the books they read? The years following 1789 in France saw many such changes in the lives of men, women and children. The revolutionary governments took it upon themselves to pass laws that would translate the ideals of liberty and equality into everyday practice. One important law that came into effect soon after the storming of the Bastille in the summer of 1789 was the abolition of censorship. In the Old Regime all written material and cultural activities books, newspapers, plays - could be published or performed only after they had been approved by the censors of the king. Now the Declaration of the Rights of Man and Citizen proclaimed freedom of speech and expression to be a natural right. Newspapers, pamphlets, books and printed pictures flooded the towns of France from where they travelled rapidly into the countryside. They all described and discussed the events and changes taking place in France. Freedom of the press also meant that opposing views of events could be expressed. Each side sought to convince the others of its position through the medium of print. Plays, songs and festive processions attracted large numbers of people. This was one way they could grasp and identify with ideas such as liberty or justice that political philosophers wrote about at length in texts which only a handful of educated people could read.

The ideas of liberty and democratic rights were the most important legacy of the French Revolution. These spread from France to the rest of Europe during the nineteenth century, where feudal systems were abolished. Colonised peoples reworked the idea of freedom from bondage into their movements to create a sovereign nation state. Tipu Sultan and Rammohan Roy are two examples of individuals who responded to the ideas coming from revolutionary France. Raja Rammohan Roy was one of those who was inspired by new ideas that were spreading through Europe at that time. The French Revolution and later, the July Revolution excited his imagination.

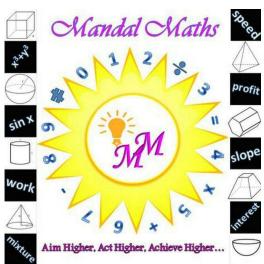


48. Livelihood, Economies and Society

In Section II we will shift our focus to the study of livelihoods and economies. We will look at how the lives of forest dwellers and pastoralists changed in the modern world and how they played a part in shaping these changes. All too often in looking at the emergence of the modern world, we only focus on factories and cities, on the industrial and agricultural sectors which supply the market.69
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But we forget that there are other economies outside these sectors, other people too who matter to the nation. To modern eyes, the lives of pastoralists and forest dwellers, the shifting cultivators and food gatherers often seem to be stuck in the past. It is as if their lives are not important when we study the emergence of the contemporary world. The chapters in Section II will suggest that we need to know about their lives, see how they organise their world and operate their economies. These communities are very much part of the modern world we live in today. They are not simply survivors from a bygone era. We cannot understand the making of the contemporary world unless we begin to see the changes in the lives of diverse communities and people.

Chapter IV will take you into the forest and tell you about the variety of ways the forests were used by communities living within them. It will show how in the nineteenth century the growth of industries and urban centres, ships and railways, created a new demand on the forests for timber and other forest products. New demands led to new rules of forest use, new ways of organising the forest. You will see how colonial control was established over the forests, how forest areas were mapped, trees were classified, and plantations were developed. All these developments affected the lives of those local communities who used forest resources. They were forced to operate within new systems and reorganise their lives. But they also rebelled against the rules and persuaded the state to change its policies. The chapter will give you an idea of the history of such developments in India and Indonesia.

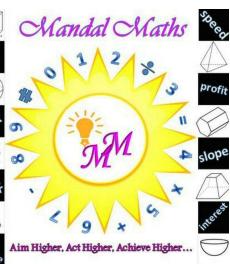


49. Sense of music without listening

Rush hour crowds jostle for position on the underground train platform. A slight girl, looking younger than her seventeen years, was nervous yet excited as she felt the vibrations of the approaching train. It was her first day at the prestigious Royal Academy of Music in London and daunting enough for any teenager fresh from a Scottish farm. But this aspiring musician faced a bigger challenge than most: she was profoundly deaf.

Evelyn Glennie's loss of hearing had been gradual. Her mother remembers noticing something was wrong when the eight-year-old Evelyn was waiting to play the piano. "They called her name and she didn't move. I suddenly realised she hadn't heard," says Isabel Glennie. For quite a while Evelyn managed to conceal her growing deafness from friends and teachers. But by the time she was eleven her marks had deteriorated and her headmistress urged her parents to take her to a specialist. It was then discovered that her hearing was severely impaired as a result of gradual nerve damage. They were advised that she should be fitted with hearing aids and sent to a school for the deaf. "Everything suddenly looked black," says Evelyn.

But Evelyn was not going to give up. She was determined to lead a normal life and pursue her interest in music. One day she noticed a girl playing a xylophone and decided that she wanted to play it too. Most of the teachers discouraged her but percussionist Ron Forbes spotted her potential. He began by tuning two large drums to different notes. "Don't listen through your ears," he would say, "try to sense it some other way." Says Evelyn, "Suddenly I realised I could feel the higher drum from the waist up and the lower one from the waist down." Forbes repeated the exercise, and soon Evelyn discovered that she could sense certain notes in different parts of her body. "I had learnt to open my mind and body to sounds and vibrations." The rest was sheer determination and hard work. By the time she was sixteen, she had decided to make music her life.

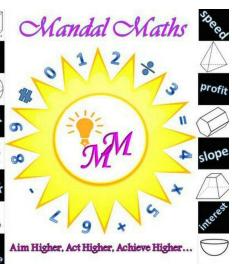


50. An extract from Wings of Fire

I was born into a middle-class Tamil family in the island town of Rameswaram in the erstwhile Madras State. My father, Jainulabdeen, had neither much formal education nor much wealth; despite these disadvantages, he possessed great innate wisdom and a true generosity of spirit. He had an ideal helpmate in my mother, Ashiamma. I do not recall the exact number of people she fed every day, but I am quite certain that far more outsiders ate with us than all the members of our own family put together.

I was one of many children i.e. a short boy with rather undistinguished looks, born to tall and handsome parents. We lived in our ancestral house, which was built in the middle of the nineteenth century. It was a fairly large pucca house, made of limestone and brick, on the Mosque Street in Rameswaram. My austere father used to avoid all inessential comforts and luxuries. However, all necessities were provided for, in terms of food, medicine or clothes. In fact, I would say mine was a very secure childhood, both materially and emotionally.

The Second World War broke out in 1939, when I was eight years old. For reasons I have never been able to understand, a sudden demand for tamarind seeds erupted in the market. I used to collect the seeds and sell them to a provision shop on Mosque Street. A day's collection would fetch me the princely sum of one anna. My brother-in-law Jallaluddin would tell me stories about the War which I would later attempt to trace in the headlines in Dinamani. Our area, being isolated, was completely unaffected by the War. But soon India was forced to join the Allied Forces and something like a state of emergency was declared. The first casualty came in the form of the suspension of the train halt at Rameswaram station. The newspapers now had to be bundled and thrown out from the moving train on the Rameswaram Road between Rameswaram and Dhanuskodi. That forced my cousin Samsuddin, who distributed newspapers in Rameswaram, to look for a helping hand to catch the bundles and, as if naturally, I filled the slot.

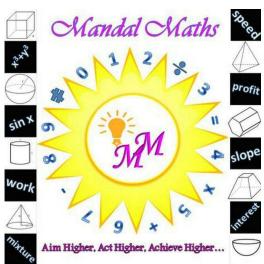


51. Reach for the Top

Wishing always to study “a bit more” and with her father slowly getting used to her urge for more education, Santosh passed the high school examinations and went to Jaipur. She joined Maharani College and got a room in Kasturba Hostel. Santosh remembers, “Kasturba Hostel faced the Aravalli Hills. I used to watch villagers from my room, going up the hill and suddenly vanishing after a while. One day I decided to check it out myself. I found nobody except a few mountaineers. I asked if I could join them. To my pleasant surprise, they answered in the affirmative and motivated me to take to climbing.”

Then there was no looking back for this determined young girl. She saved money and enrolled in a course at Uttarkashi’s Nehru Institute of Mountaineering. “My college semester in Jaipur was to end in April but it ended on the nineteenth of May. And I was supposed to be in Uttarkashi on the twenty-first. So, I did not go back home; instead, I headed straight for the training. I had to write a letter of apology to my father without whose permission I had got myself enrolled at Uttarkashi.”

Thereafter, Santosh went on an expedition every year. Her climbing skills matured rapidly. Also, she developed a remarkable resistance to cold and the altitude. Equipped with an iron will, physical endurance and an amazing mental toughness, she proved herself repeatedly. The culmination of her hard work and sincerity came in 1992, just four years after she had shyly asked the Aravalli mountaineers if she could join them. At barely twenty years of age, Santosh Yadav scaled Mt Everest, becoming the youngest woman in the world to achieve the feat. If her climbing skills, physical fitness, and mental strength impressed her seniors, her concern for others and desire to work together with them found her a special place in the hearts of fellow climbers. She then scaled the Everest a second time, thus setting a record as the only woman to have scaled the Everest twice, and securing for herself and India a unique place in the annals of mountaineering.

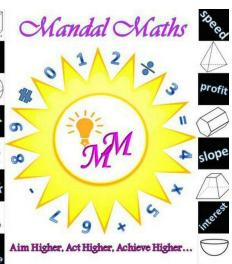


52. An orphaned Sloth Bear

I will begin with Bruno, my wife's pet sloth bear. I got him for her by accident. Two years ago we were passing through the sugarcane fields near Mysore. People were driving away the wild pigs from the fields by shooting at them. Some were shot and some escaped. We thought that everything was over when suddenly a black sloth bear came out panting in the hot sun. Now I will not shoot a sloth bear wantonly but, unfortunately for the poor beast, one of my companions did not feel that way about it, and promptly shot the bear on the spot.

As we watched the fallen animal we were surprised to see that the black fur on its back moved and left the prostrate body. Then we saw it was a baby bear that had been riding on its mother's back when the sudden shot had killed her. The little creature ran around its prostrate parent making a pitiful noise. I ran up to it to attempt a capture. It scooted into the sugarcane field. Following it with my companions, I was at last able to grab it by the scruff of its neck while it snapped and tried to scratch me with its long, hooked claws.

We put it in one of the gunny-bags we had brought and when I got back to Bangalore I duly presented it to my wife. She was delighted! She at once put a coloured ribbon around its neck, and after discovering the cub was a 'boy' she christened it Bruno. Bruno soon took to drinking milk from a bottle. It was but a step further and within a very few days he started eating and drinking everything else. And everything is the right word, for he ate porridge made from any ingredients, vegetables, fruit, nuts, meat (especially pork), curry and rice regardless of condiments and chillies, bread, eggs, chocolates, sweets, pudding, ice-cream, etc., etc., etc. As for drink: milk, tea, coffee, lime-juice, aerated water, buttermilk, beer, alcoholic liquor and, in fact, anything liquid. It all went down with relish. The bear became very attached to our two Alsatian dogs and to all the children of the tenants living in our bungalow.



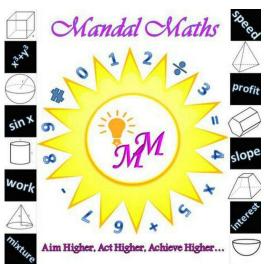
53. Kathmandu

I get a cheap room in the centre of town and sleep for hours. The next morning, with Mr Shah's son and nephew, I visit the two temples in Kathmandu that are most sacred to Hindus and Buddhists. At Pashupatinath (outside which a sign proclaims 'Entrance for the Hindus only') there is an atmosphere of 'febrile confusion'. Priests, hawkers, devotees, tourists, cows, monkeys, pigeons and dogs roam through the grounds. We offer a few flowers. There are so many worshippers that some people trying to get the priest's attention are elbowed aside by others pushing their way to the front. A princess of the Nepalese royal house appears; everyone bows and makes way. By the main gate, a party of saffron-clad Westerners struggle for permission to enter. The policeman is not convinced that they are 'the Hindus' (only Hindus are allowed to enter the temple). A fight breaks out between two monkeys. One chases the other, who jumps onto a shivalinga, then runs screaming around the temples and down to the river, the holy Bagmati, that flows below. A corpse is being cremated on its banks; washerwomen are at their work and children bathe. From a balcony a basket of flowers and leaves, old offerings now wilted, is dropped into the river. A small shrine half protrudes from the stone platform on the river bank. When it emerges fully, the goddess inside will escape, and the evil period of the Kaliyug will end on earth.

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At the Baudhnath stupa, the Buddhist shrine of Kathmandu, there is, in contrast, a sense of stillness. Its immense white dome is ringed by a road. Small shops stand on its outer edge: many of these are owned by Tibetan immigrants; felt bags, Tibetan prints and silver jewellery can be bought here. There are no crowds: this is a haven of quietness in the busy streets around. Kathmandu is vivid, mercenary, religious, with small shrines to flower-adorned deities along the narrowest and busiest streets; with fruit sellers, flute sellers, hawkers of postcards; shops selling Western cosmetics, film rolls and chocolate; or copper utensils and Nepalese antiques.

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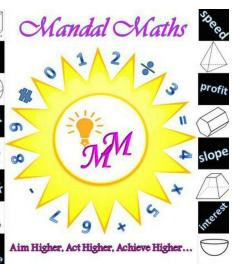
54. Why do we need elections?

Elections can be held in many ways in. All the democratic countries of the world hold elections There are more than one hundred countries in the world in which elections take place to choose people's representatives. We also read in this chapter that elections are held in many countries that are not democratic.

But why do we need elections? Let us try to imagine a democracy without elections. A rule of the people is possible without any elections if all the people can sit together everyday and take all the decisions. But as we have already seen in Chapter 1, this is not possible in any large community. Nor is it possible for everyone to have the time and knowledge to take decisions on all matters. Therefore in most democracies people rule through their representatives.

Is there a democratic way of selecting representatives without elections? Let us think of a place where representatives are selected on the basis of age and experience. Or a place where they are chosen on the basis of education or knowledge. There could be some difficulty in deciding on who is more experienced or knowledgeable. But let us say the people can resolve these difficulties. Clearly, such a place does not require elections.

But can we call this place a democracy? How do we find out if the people like their representatives or not? How do we ensure that these representatives rule as per the wishes of the people? How to make sure that those who the people don't like do not remain their representatives? This requires a mechanism by which people can choose their representatives at regular intervals and change them if they wish to do so. This mechanism is called election. Therefore, elections are considered essential in our times for any representative democracy. In an election the voters make many choices. They can choose who will make law for them. They can choose who will form the government and take major decisions. They can choose the party whose policies will guide the government and law making.



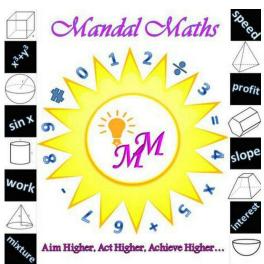
55. Challenges to free and fair election

All this leads to a simple conclusion: elections in India are61
basically free and fair. The party that wins an election and forms128
government does so because people have chosen it over its rivals. This199
may not be true for every constituency. A few candidates may win264
purely on the basis of money power and unfair means. But the overall333
verdict of a general election still reflects popular preference. There are308
very few exceptions to this rule in the last 60 years in our country. This483
is what makes Indian elections democratic.526

Yet the picture looks different if we ask deeper questions: Are590
people's preferences based on real knowledge? Are the voters getting a661
real choice? Is election really level playing field for everyone? Can an734
ordinary citizen hope to win elections? Questions of this kind bring the807
many limitations and challenges of Indian elections to our attention.877
These include:892

Candidates and parties with a lot of money may not be sure of954
their victory but they do enjoy a big and unfair advantage over smaller1026
parties and independents. In some parts of the country, candidates with1099
criminal connection have been able to push others out of the electoral1170
race and to secure a 'ticket' from major parties. Some families tend to1242
dominate political parties; tickets are distributed to relatives from these1318
families. Very often elections offer little choice to ordinary citizens, for1395
both the major parties are quite similar to each other both in policies and1471
practice. Smaller parties and independent candidates suffer a huge1538
disadvantage compared to bigger parties.1579

These challenges exist not just in India but also in many1637
established democracies. These deeper issues are a matter of concern for1710
those who believe in democracy. That is why citizens, social activists1781
and organisations have been demanding reforms in our electoral system.1852
Can you think of some reforms? What can an ordinary citizen do to face1923
these challenges? In this chapter we will see the answer of all these1993
questions.2004



56. A Statement

Suppose your family owns a plot of land and there is no fencing around it. Your neighbour decides one day to fence off his land. After he has fenced his land, you discover that a part of your family's land has been enclosed by his fence. How will you prove to your neighbour that he has tried to encroach on your land? Your first step may be to seek the help of the village elders to sort out the difference in boundaries. But, suppose opinion is divided among the elders. Some feel you are right and others feel your neighbour is right. What can you do? Your only option is to find a way of establishing your claim for the boundaries of your land that is acceptable to all. For example, a government approved survey map of your village can be used, if necessary in a court of law, to prove (claim) that you are correct and your neighbour is wrong.

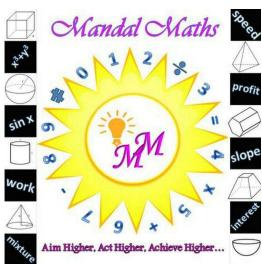
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Let us look at another situation. Suppose your mother has paid the electricity bill of your house for the month of August, 2005. The bill for September, 2005, however, claims that the bill for August has not been paid. How will you disprove the claim made by the electricity department? You will have to produce a receipt proving that your August bill has been paid.915
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You have just seen some examples that show that in our daily life we are often called upon to prove that a certain statement or claim is true or false. However, we also accept many statements without bothering to prove them. But, in mathematics we only accept a statement as true or false (except for some axioms) if it has been proved to be so, according to the logic of mathematics.

In fact, proofs in mathematics have been in existence for thousands of years, and they are central to any branch of mathematics. The first known proof is believed to have been given by the Greek philosopher and mathematician Thales. While mathematics was central to many ancient civilisations like Mesopotamia, Egypt, China and India, there is no clear evidence that they used proofs the way we do today.

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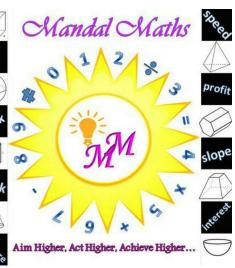


57. Geometry

The word ‘geometry’ comes from the Greek words ‘geo’, meaning the ‘earth’, and ‘metrein’, meaning ‘to measure’. Geometry appears to have originated from the need for measuring land. This branch of mathematics was studied in various forms in every ancient civilisation, be it in Egypt, Babylonia, China, India, Greece, the Incas, etc. The people of these civilisations faced several practical problems which required the development of geometry in various ways.

For example, whenever the river Nile overflowed, it wiped out the boundaries between the adjoining fields of different land owners. After such flooding, these boundaries had to be redrawn. For this purpose, the Egyptians developed a number of geometric techniques and rules for calculating simple areas and also for doing simple constructions. The knowledge of geometry was also used by them for computing volumes of granaries, and for constructing canals and pyramids. They also knew the correct formula to find the volume of a truncated pyramid. You know that a pyramid is a solid figure, the base of which is a triangle, or square, or some other polygon, and its side faces are triangles converging to a point at the top.

In the Indian subcontinent, the excavations at Harappa and Mohenjo-Daro, etc. show that the Indus Valley Civilisation (about 3000 BCE) made extensive use of geometry. It was a highly organised society. The cities were highly developed and very well planned. For example, the roads were parallel to each other and there was an underground drainage system. The houses had many rooms of different types. This shows that the town dwellers were skilled in mensuration and practical arithmetic. The bricks used for constructions were kiln fired and the ratio length:breadth:thickness, of the bricks was found to be 4:2:1. In ancient India, the Sulbasutras (800 BCE to 500 BCE) were the manuals of geometrical constructions. The geometry of the Vedic period originated with the construction of altars (or vedis) and fireplaces for performing Vedic rites.



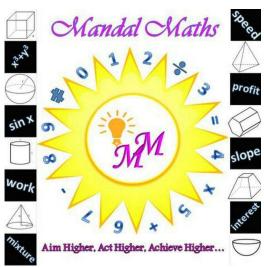
58. Statistics

Everyday we come across a lot of information in the form of facts, numerical figures, tables, graphs, etc. These are provided by newspapers, televisions, magazines and other means of communication. These may relate to cricket batting or bowling averages, profits of a company, temperatures of cities, expenditures in various sectors of a five year plan, polling results, and so on. These facts or figures, which are numerical or otherwise, collected with a definite purpose are called data. Data is the plural form of the Latin word datum. Of course, the word ‘data’ is not new for you. You have studied about data and data handling in earlier classes. Our world is becoming more and more information oriented. Every part of our lives utilises data in one form or the other. So, it becomes essential for us to know how to extract meaningful information from such data. This extraction of meaningful information is studied in a branch of mathematics called Statistics.

....66
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....207
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....967

The word ‘statistics’ appears to have been derived from the Latin word ‘status’ meaning ‘a (political) state’. In its origin, statistics was simply the collection of data on different aspects of the life of people, useful to the State. Over the period of time, however, its scope broadened and statistics began to concern itself not only with the collection and presentation of data but also with the interpretation and drawing of inferences from the data. Statistics deals with collection, organisation, analysis and interpretation of data. The word ‘statistics’ has different meanings in different contexts. First, statistics is used in a plural sense, meaning numerical data. These may include a number of educational institutions of India, literacy rates of various states, etc. Second, the word ‘statistics’ is used as a singular noun, meaning the subject which deals with the collection, presentation, analysis of data as well as drawing of meaningful conclusions from the data. In this chapter, we shall briefly discuss all these aspects regarding data.

....1034
....1109
....1183
....1248
....1315
....1388
....1459
....1532
....1610
....1678
....1752
....1822
....1897
....1971
....2030



59. Expenses of a person

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<i>Expenses of a person</i>				
5	PARAMETER	Financial Year 2018-2019 (in Rupees)	Financial Year 2019-2020 (in Rupees)	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Rent	147,857.72	207,596.28		
7	Food	96,748.38	103,145.64		
8	Travel	29,137.48	13,378.19		

3. Format the cells such that the Text size is 12, Font is Arial for all the cells. The Title row (4) should be **Bold** and **Italicized** with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease w.r.t. Value of Column B for each Parameter.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



60. Vacancies Comparison

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	SSC CGL Vacancies				

5	Grade Pay	Vacancies in 2017	Vacancies in 2018	Difference in Vacancies	Percent Increase/Decrease
6	4800	600	300		
7	4600	2866	3531		
8	4200	792	521		
9	2800	1081	4362		
10	2400	2795	2557		

3. Format the cells such that the Text size is 14, Font is Calibri for all the cells. The Title row (4) should be **Bold** and **Underlined** with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Difference (Absolute Increase/Decrease) from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease w.r.t. Value of Column B for each Parameter. The required value should have 2 decimal places.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as "SSC_" followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.

PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



61. IPL Teams Win Percentage

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
<u>IPL Teams Win Percentage</u>					
5	Teams	Matches	Lost	Win	Win Percentage
6	Mumbai Indians	187	80		
7	Chennai Super Kings	165	65		
8	Kolkata Knight Riders	181	89		
9	Royal Challengers Bangalore	182	99		
10	Kings XI Punjab	176	96		

3. Format the cells such that the Text size is 11, Font is Times New Roman for all the cells. The Title row (4) should be **Bold**, **Italicized** and **Underlined** with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Find Lost: Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Win Percentage (upto 2 decimal places) w.r.t. Value of Column B for each Parameter.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



62. Population Comparison

Test in Microsoft Excel

- Start "Microsoft Excel" program and open new worksheet.
- Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	Population comparison b/w India and China (in crores)				
5	Year	India	China	Population Difference	Difference in Percentage
6	1971	56.62	84.11		
7	1981	71.31	99.39		
8	1991	88.81	115.08		
9	2001	107.15	127.18		
10	2011	124.72	134.41		

- Format the cells such that the Text size is 12, Font is Bookman Old Style for all the cells. The Title row (4) should be Bolds and Underlined with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
- Create the border only for the cells that have a solid line shown above.
- Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Find Population Difference: Absolute Increase/Decrease of Column B to Column C for each parameter with proper sign.
 - Difference in Percentage w.r.t. Value of Column B for each Parameter.
- After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
- Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
- Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
- PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



63. Savings Options in India

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<u>Savings Options in India</u>				
5	PARAMETER	Value in 2019	Value in 2020	Difference in Value	Difference in Percentage
6	PPF rate (in Percentage)	7.80	7.10		
7	Gold rate (22 carat: 1 gram)	3639.00	4945.00		
8	SBI Tax Saving FD	6.00	5.30		
9	Silver rate 1 gram	45.71	67.99		

3. Format the cells such that the Text size is 11, Font is Calibri for all the cells. The Title row (4) should be **Bold**, **Italicized** and **Underlined** with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Difference in Value of Column B with Column C for each parameter with proper sign.
 - Difference in Percentage w.r.t. Value of Column B for each Parameter.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.

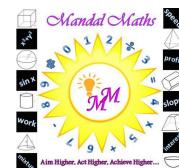


64. Gross Salary in X-city

1. Start "Microsoft Excel" program and open new worksheet.
 2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	9120092020				
3						
4	<u>Gross salary in X-city (if allowances=0)</u>					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	HRA (24%)	6120	7008	8496	10776	11424
8	DA (17%)	4335	4964	6018	7633	8092
9	TA	3600	3600	3600	3600	3600
10	DA on TA	612	612	612	612	612
11	Gross salary reflected in salary slip	40167	45384	54126	67521	71328
12	Govt. contribution on NPS (14 % of Basic+DA)	4177	4783	5799	7355	7797
13	Actual Gross salary	44344	50167	59925	74876	79125

3. Set paper size to "Letter", orientation to "Portrait" and Margin "Normal".
 4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 5. Create the border only for the cells (i.e. the table) that have a solid line shown above.
 6. Use appropriate Formulae to find the value in the shaded/coloured cells.
 7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
 10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



65. Gross Salary in Y-city

1. Start "Microsoft Excel" program and open new worksheet.
2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	9120092020				
3						
Gross salary in Y-city (if allowances=0)						
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	HRA (16%)	4080	4672	5664	7184	7616
8	DA (17%)	4335	4964	6018	7633	8092
9	TA	1800	1800	1800	1800	1800
10	DA on TA	306	306	306	306	306
11	Gross salary reflected in salary slip	36021	40942	49188	61823	65414
12	Govt. contribution on NPS (14 % of Basic+DA)	4177	4783	5799	7355	7797
13	Actual Gross salary	40198	45725	54987	69178	73211

3. Set paper size to "Letter", orientation to "Portrait" and Margin "Normal".
4. Format the cells such that the Text size is 12, Font is Calibri for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to find the value in the shaded/coloured cells.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



66. Gross Salary in Z-city

1. Start "Microsoft Excel" program and open new worksheet.
2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	9120092020				
4	Gross salary in Z-city (if allowances=0)					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	HRA (8%)	2040	2336	2832	3592	3808
8	DA (17%)	4335	4964	6018	7633	8092
9	TA	1800	1800	1800	1800	1800
10	DA on TA	306	306	306	306	306
11	Gross salary reflected in salary slip	33981	38606	46356	58231	61606
12	Govt. contribution on NPS (14 % of Basic+DA)	4177	4783	5799	7355	7797
13	Actual Gross salary	38158	43389	52155	65586	69403

3. Set paper size to "Letter", orientation to "Portrait" and Margin "Normal".
4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to find the value in the shaded/coloured cells.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



67. In-hand Salary in X-city

1. Start "Microsoft Excel" program and open new worksheet.
 2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
3						
4	In-hand salary in X-city (if Tax=0)					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	3600	3600	3600	3600	3600
8	Gross salary reflected in salary slip	40167	45384	54126	67521	71328
9	CGHS	250	250	450	650	650
10	CGEGIS	30	30	30	60	60
11	Contribution to NPS	2984	3416	4142	5253	5569
12	In-Hand Salary	36904	41688	49504	61558	65049

3. Set paper size to "A4", orientation to "Portrait" and Margin "Narrow".
 4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 5. Create the border only for the cells that have a solid line shown above.
 6. Use appropriate Formulae to find the value in the shaded/coloured cells.
 7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
 10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



68. In-hand Salary in Y-city

1. Start "Microsoft Excel" program and open new worksheet.
2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
3						
4	In-hand salary in Y-city (if Tax=0)					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	1800	1800	1800	1800	1800
8	Gross salary reflected in salary slip	36021	40942	49188	61823	65414
9	CGHS	250	250	450	650	650
10	CGEGIS	30	30	30	60	60
11	Employee Contribution to NPS	2984	3416	4142	5253	5569
12	In-Hand Salary	32758	37246	44566	55860	59135

3. Set paper size to "Letter", orientation to "Portrait" and Margin "Normal".
4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to find the value in the shaded/coloured cells.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



99. In-hand Salary in Z-city

1. Start "Microsoft Excel" program and open new worksheet.
2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
3						
4	In-hand salary in Z-city (if Tax=0)					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	1800	1800	1800	1800	1800
8	Gross salary reflected in salary slip	33981	38606	46356	58231	61606
9	CGHS	250	250	450	650	650
10	CGEGIS	30	30	30	60	60
11	Employee Contribution to NPS	2984	3416	4142	5253	5569
12	In-Hand Salary	30718	34910	41734	52268	55327

3. Set paper size to "Letter", orientation to "Portrait" and Margin "Normal".
4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to find the value in the shaded/coloured cells.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.

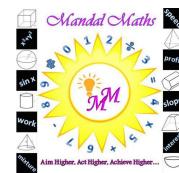


70. Tax Calculation with cess (X-city)

1. Start "Microsoft Excel" program and open new worksheet.
 2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
3						
4		Tax calculation (X-city)				
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	3600	3600	3600	3600	3600
8	Gross salary reflected in salary slip	40167	45384	54126	67521	71328
9	Gross salary in 12 months w.r.t. Row 8	482004	544608	649512	810252	855936
10	Tax to be paid (New Tax Regime)	0	17639	28549	48399	55526
11	Tax to be paid (Old Tax Regime)	0	0	0	35932	45435
	(Assume Savings + SD = 2 lakh)					

3. Set paper size to "A4", orientation to "Portrait" and Margin "Narrow".
 4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 5. Create the border only for the cells that have a solid line shown above.
 6. Use appropriate Formulae to find the value in the shaded/coloured cells.
 7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
 10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.

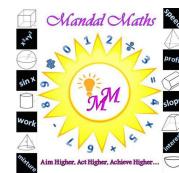


71. Tax Calculation with cess (Y-city)

1. Start "Microsoft Excel" program and open new worksheet.
 2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
3						
4	<u>Tax calculation (Y-city)</u>					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	1800	1800	1800	1800	1800
8	Gross salary reflected in salary slip	36021	40942	49188	61823	65414
9	Gross salary in 12 months w.r.t. Row 8	432252	491304	590256	741876	784968
10	Tax to be paid (New Tax Regime)	0	0	22387	38155	44455
11	Tax to be paid (Old Tax Regime) (Assume Savings + SD = 2 lakh)	0	0	0	21710	30673

3. Set paper size to "A4", orientation to "Portrait" and Margin "Narrow".
 4. Format the cells such that the Text size is 12, Font is Times New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 5. Create the border only for the cells that have a solid line shown above.
 6. Use appropriate Formulae to find the value in the shaded/coloured cells.
 7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
 10. PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



72. Tax Calculation (Z-city)

1. Start "Microsoft Excel" program and open new worksheet.
2. Make exercise similar to the picture as given below:

	A	B	C	D	E	F
1	Name	VKM				
2	Roll No	1234567890				
4	Tax calculation (Z-city)					
5	PARAMETERS	Pay-Level 4 (2400 GP)	Pay-Level 5 (2800 GP)	Pay-Level 6 (4200 GP)	Pay-Level 7 (4600 GP)	Pay-Level 8 (4800 GP)
6	Basic Pay	25500	29200	35400	44900	47600
7	TA	1800	1800	1800	1800	1800
8	Gross salary reflected in salary slip	33981	38606	46356	58231	61606
9	Gross salary in 12 months w.r.t. Row 8	407772	463272	556272	698772	739272
10	Tax to be paid (New Tax Regime)	0	0	18127	32377	36427
11	Tax to be paid (Old Tax Regime) (Assume Savings + SD = 2 lakh)	0	0	0	0	21169

3. Set paper size to "A4", orientation to "Portrait" and Margin "Narrow".
4. Format the cells such that the Text size is 12, Font is Calibri for all the cells. The Title row (4) should be Bold and Underlined with Font size 16. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to find the value in the shaded/coloured cells.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



73. Examination Result Level-wise Pass Out

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<u>Examination Result Level-wise Pass Out</u>				
5	Level	For Year 2017-18	For Year 2018-19	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Certificate	75,383	75,358		
7	Diploma	737,077	783,914		
8	Under Graduate	6,419,639	6,474,715		
9	Post Graduate	1,504,403	1,500,064		
10	Ph. D.	34,400	40,813		

3. Set paper size to "A4", orientation to "Portrait" and Margin "Normal".
4. Format the cells such that the Text size is 12, Font is Calibri for all the cells. The Title row (4) should be Bold and Underlined with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease (upto 2 decimals) w.r.t. Value of Column B for each Parameter.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.

PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



74. Per Capita Food Availability

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<i>Per Capita Food Availability</i>				
5	Category	Value in Year 2018	Value in Year 2019	Absolute Increase/Decrease	Percent Increase/Decrease
6	Rice	69.20	69.10		
7	Wheat	61.50	65.20		
8	Other Cereals	30.60	27.80		
9	Cereals	161.30	162.10		
10	Pulses	18.70	17.50		
11	Food Grains	180.10	179.60		

3. Set paper size to "A4", orientation to "Portrait" and Margin "Wide".
4. Format the cells such that the Text size is 12, Font is Century for all the cells. The Title row (4) should be **Bold** and *Italicized* with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
5. Create the border only for the cells that have a solid line shown above.
6. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease w.r.t. Value of Column B for each Parameter.
7. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
8. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
9. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.

PLEASE NOTE: Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.

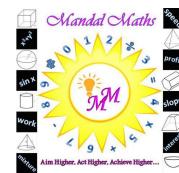
75. Land Use in India

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<u>Land Use in India (in 000' Hectare)</u>				
5	PARAMETER	For Year 1996-97	For Year 2014-15	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Forest	69103	71794		
7	Non-agriculturable land	22554	26883		
8	Net Area Sown	142931	140130		
9	Total Cropped Area	189502	198360		

3. Format the cells such that the Text size is 12, Font is Arial for all the cells. The Title row (4) should be **Bold** and **Underlined** with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease (upto 2 decimal places) w.r.t. Value of Column B for each Parameter.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



76. Forest Cover in India

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	Forest Cover in India-classwise				
5	Class	Area in 2013-14 (in sq. km)	Area in 2015-16 (in sq. km)	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Very Dense Forest	85904	98158		
7	Moderately Dense Forest	315374	308318		
8	Open Forest	300395	301797		

3. Format the cells such that the Text size is 12, Font is Calibri for all the cells. The Title row (4) should be **Bold** and **Underlined** with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease (upto 2 decimal places) w.r.t. Value of Column B for each Parameter.
6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



77. Production of Energy in India by Commercial Sources

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<u>Production of Energy in India by Commercial Sources</u>				
5	PARAMETER	For Year 2017-18	For Year 2018-19	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Coal (in million tonnes)	675.40	728.72		
7	Lignite (in million tonnes)	46.64	44.28		
8	Crude Oil (in million tonnes)	35.68	34.20		
9	Natural Gas (in million tonnes)	32.65	32.87		
10	Electricity from Renewable Energy Sources (Gwh)	266308.30	299465.00		

3. Format the cells such that the Text size is 12, Font is Time New Roman for all the cells. The Title row (4) should be Bold and Underlined with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 4. Create the border only for the cells that have a solid line shown above.
 5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease w.r.t. Value of Column B for each Parameter.
 6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
- PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.





78. First Salary and Increment (X-city)

Test in Microsoft Excel

1. Start "Microsoft Excel" program and open new worksheet.
2. Enter your Name and Roll Number in first two rows of the Worksheet as shown below. Enter the rest of the content as per instruction below in the same cells.

	A	B	C	D	E
1	Name	Your Name			
2	Roll No	XXXXXXXXXX			
3					
4	<u>First Salary and Increment (for X-city)</u>				
5	Grade Pay	Gross Salary (Initially) (if DA=17%)	Gross Salary after an year (if DA=23%)	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	2400	40,167	43,089		
7	2800	45,384	48,675		
8	4200	54,126	58,083		
9	4600	67,521	72,342		
10	4800	71,328	76,458		

3. Format the cells such that the Text size is 12, Font is Arial for all the cells. The Title row (4) should be Bold , Italicized and Underlined with Font size 14. Merge and centre the cells in the Title row, so that the Title appears as shown above. The Table Heading's row (5) should be either Left or Centre or Right aligned as shown above.
 4. Create the border only for the cells that have a solid line shown above.
 5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each parameter with proper sign.
 - Percent Increase/Decrease (upto 2 decimal places) w.r.t. Value of Column B for each Parameter.
 6. After preparing the worksheet as shown above, save it on your assigned Desktop & Naming the file as “SSC_” followed by your Roll number e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000.
 7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
 8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
- PLEASE NOTE:** Exercised XLS Worksheet Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and thus you will be awarded ZERO Marks.



79. Gazette Holidays

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

GAZETTE HOLIDAYS

GAZETTE HOLIDAYS

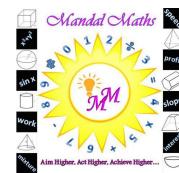
- ❖ There are total 17 gazette/mandate holidays in a year.
- ❖ 14 out of 17 gazette holidays are compulsory for each state.
- ❖ 3 other gazette holidays are chosen by the Central Government Employees Welfare Coordination Committee in the state capitals.
- ❖ There are 12 options to choose the above mentioned 3 gazette holidays.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use “Century” as the Font Type for both “Title” as well as “Sub-Title”.
3. Use Font Size of “40 Point” for “Title”
4. Use Font Size of “24 Point” for the “Sub-Title”.
5. Size of the Font should be 20 Points in “Century” Font.
6. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
7. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
8. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
9. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



80. Restricted Holidays

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

RESTRICTED HOLIDAYS

Some Points

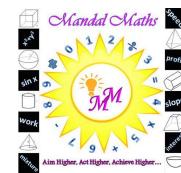
- ❖ The State capitals may draw up a list of holidays in view of the occasion of Local Importance.
- ❖ The government offices don't close on these days.
- ❖ The CG employee can avail 2 RH during a calendar year.

September 20, 2020

Roll Number: XXXXXXXXX

Name: XXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use “Calibri” as the Font Type for both “Title” as well as “Sub-Title”.
3. Use Font Size of “48 Point” for “Title”
4. Use Font Size of “32 Point” for the “Sub-Title”.
5. Size of the Font should be 24 Points in “Calibri” Font.
6. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
7. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
8. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
9. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



81. Casual Leaves

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Casual Leaves

Some Facts

- In a calendar year, total 8 days of casual leave is permissible.
- No accumulation for the next year.
- Have to avail within the year only.
- It may be taken for emergency purposes.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use “Bookman Old Style” as the Font Type for both “Title” as well as “Sub-Title”.
3. Use Font Size of “44 Point” for “Title”
4. Use Font Size of “28 Point” for the “Sub-Title”.
5. Size of the Font should be 24 Points in “Bookman Old Style” Font.
6. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
7. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Times New Roman” Font.
8. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
9. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.

PLEASE NOTE: Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.

10



82. Earned Leave and Half Pay Leave

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Earned Leave and Half Pay Leave

Few Points

- ✓ On 1st January and on 1st July, 15 EL and 10 HPL are credited.
- ✓ These leaves can be accumulated.
- ✓ EL can be accumulated upto 300.
- ✓ A central Government employee can avail EL upto a maximum limit of 180 days.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use “Agency FB” as the Font Type for both “Title” as well as “Sub-Title”.
3. Use Font Size of “44 Point” for “Title”
4. Use Font Size of “28 Point” for the “Sub-Title”.
5. Size of the Font should be 24 Points in “Agency FB” Font.
6. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
7. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
8. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
9. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



83. Service Book

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

SERVICE BOOK

SOME POINTS:

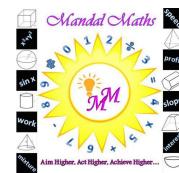
- Record of every event occurring in the entire service period.
- From the date of entry till the service of an employee ends.
- Maintained by the head of office.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “48 Point” in “Algerian” Font for “Title”
3. Use Font Size of “32 Point” in “Bookman Old Style” for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Bookman Old Style” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Times New Roman” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



84. Modified Assured Career Progressions

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Modified Assured Career Progressions

10-10 years

- This is a non-functional financial upgradation scheme.
- The benchmark to get MACP is very good as recorded in APAR.
- Your basic pay is increased and adjusted according to next Pay-Level.

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “40 Point” in “Agency FB” Font for “Title”
3. Use Font Size of “28 Point” in “Century” for the “Sub-Title”.
4. Size of the other Font should be 24 Points in “Century” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Calibri” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



85. National Pension Scheme

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

NATIONAL PENSION SCHEME

About NPS

- NPS is a government-sponsored pension scheme.
- It was launched in January 2004 for government employees. Everyone is allowed for NPS later.
- Employee Contribution: 10% of (Basic+DA)
- Employer Contribution: 14% of (Basic+DA)

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in "Algerian" Font for “Title”
3. Use Font Size of “28 Point” in " Calibri " for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Calibri” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Calibri” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



86. Transport Allowance

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Employees drawing pay in Pay Level	Rates of Transport Allowance per month	
	Employees posted in the 18 cities (including all X-cities) as mentioned by Ministry of Finance	Employees posted at all other cities
9 and above	Rs. 7200 + DA thereon	Rs. 3600 + DA thereon
3 to 8	Rs. 3600 + DA thereon	Rs. 1800 + DA thereon
1 and 2	Rs. 1350 + DA thereon	Rs. 950 + DA thereon

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use Slide Type having “Title only”.
2. Use Font Size of “44 Point” in “Algerian” Font for “Title”
3. Insert table and use Font Size of “24 Point” in “Calibri” for the “Table Title”.
4. Size of the Font for the body of Table should be 18 Points in “Calibri” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



87. Leave Travel Concession

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Leave Travel Concession

Few Points:

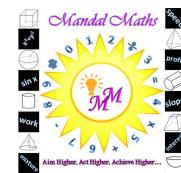
- LTC is granted to Central Government employees to facilitate home travel as well as travel to different parts of the country.
- Two hometown visits are allowed in a block of four years with one hometown visit substitutable with “All India” visit.
- **For the first two 4-year blocks, three hometown visits and one “All India” visit are permissible.**

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Aharoni” Font for “Title”
3. Use Font Size of “28 Point” in “Rockwell” for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Rockwell” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Verdana” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



88. Travel Entitlement within the country

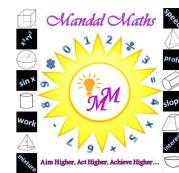
Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Level	Travel entitlement
14 and above	Business/Club class by air OR AC-I by train
12 and 13	Economy class by air OR AC-I by train
9 to 11	Economy class by air OR AC-II by train
6 to 8	AC-II by train
5 and below	First Class/AC-III/AC Chair car by train

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use Slide Type having “Title only”.
2. Use Font Size of “40 Point” in " Calibri" Font for “Title”
3. Insert table and use Font Size of “24 Point” in "Calibri" for the “Table Title”.
4. Size of the Font for the body of Table should be 20 Points in “Calibri” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Rockwell” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



89. Briefcase Allowance

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Briefcase Allowance

The periodicity of reimbursement is restricted to once in three years.

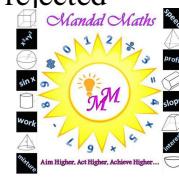
Pay Band/GP	Ceiling (in Rs.)
Apex	10000
HAG, HAG+	8000
GP 10000	6500
GP 7600 to GP 8700	5000
GP 4800 to GP 6600	4000
GP 4200 to GP 4600	3500

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Century” Font for “Title”
3. Use Font Size of “24 Point” in “Times New Roman” for the “Sub-Title”.
4. Insert Table within the “Sub-Title” box.
5. Use Font Size of “24 Point” in “Times New Roman” for the “Table Title”.
6. Size of the Font for the body of Table should be 20 Points in “Times New Roman” Font.
7. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
8. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
9. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
10. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
11. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



90. Children Education Allowance

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Children Education Allowance

BASIC POINTS

- ✓ The reimbursement of Children Education Allowance can be availed only for the two eldest surviving children.
- ✓ There is an exception i.e. if the second child birth results in multiple birth.
- ✓ The amount of reimbursement of Children Education Allowance will be Rs. 2250/- per month (fixed) per child.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Agency FB” Font for “Title”
3. Use Font Size of “28 Point” in “Calibri” for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Calibri” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Arial” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



91. Daily Allowance

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Daily Allowance

- It is meant to cover living expenses when employees travel out of their headquarters for work.

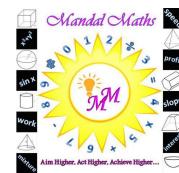
- It covers:
 - Reimbursement of staying accommodation charges
 - Reimbursement of travelling charges
 - Reimbursement of food bills*

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Bookman Old Style” Font for “Title”
3. Use Font Size of “28 Point” in “Arial” for Bulleted points.
4. Size of the Font should be 24 Points in “Arial” Font for sub-bulleted points.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Times New Roman” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



92. Reimbursement of staying accommodation charges

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Reimbursement of staying accommodation charges

Level	Ceiling for Reimbursement (per day)
14 and above	Rs. 7500
12 and 13	Rs. 4500
9 to 11	Rs. 2250
6 to 8	Rs. 750
5 and below	Rs. 450

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use Slide Type having “Title only”.
2. Use Font Size of “36 Point” in “Agency FB” Font for “Title”
3. Insert table and use Font Size of “24 Point” in “Arial Narrow”.
4. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
5. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Calibri” Font..
6. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
7. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
8. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



93. Reimbursement of travelling charges

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

Reimbursement of travelling charges

Level	Ceiling for Reimbursement (per day)
14 and above	AC Taxi charges up to 50 km
12 and 13	Non-AC Taxi charges up to 50 km
9 to 11	Rs. 338 per day
6 to 8	Rs. 225 per day
5 and below	Rs. 113 per day

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use Slide Type having “Title only”.
2. Use Font Size of “40 Point” in “Times New Roman” Font for “Title”
3. Insert table and use Font Size of “24 Point” in “Calibri” Font.
4. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
5. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 16 Points in “Century” Font..
6. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
7. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
8. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



94. Interest Bearing Advances

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

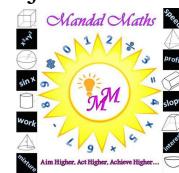
INTEREST-BEARING ADVANCES

➤ Two following interest-bearing advances are recommended in report of 7th Pay Commission Report:

- Advance for purchase of Personal Computer
- House Building Advance (HBA)

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “40 Point” in "Algerian" Font for “Title”
3. Use Font Size of “24 Point” in "Calibri" for Bulleted points.
4. Size of the Font should be 20 Points in “Calibri” Font for sub-bulleted points.
5. Use Line-spacing of 2.0 for "Sub-Title".
6. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
7. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Times New Roman” Font.
8. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
9. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
10. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



95. Advance for purchase of Personal Computer

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

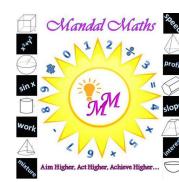
Advance for purchase of Personal Computer

Two points to remember:

- Rs. 50000 or actual price of PC, whichever is lower.
- As per 7th CPC report, it is allowed maximum five times in the entire service.

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “40 Point” in “Agency FB” Font for “Title”
3. Use Font Size of “28 Point” in “Rockwell” for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Rockwell” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Verdana” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number us 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



96. House Building Advance (HBA)

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

House Building Advance (HBA)

➤ Recommended Ceiling

- 34 times Basic Pay, Or
- Rs. 25 lakh, Or
- anticipated price of house, whichever is least

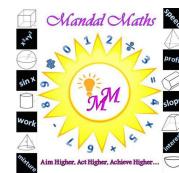
➤ As per 7th CPC report, 5 years of continuous service is required to avail HBA.

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Calibri” Font for “Title”
3. Use Font Size of “28 Point” in “Rockwell” for Bulleted points.
4. Size of the Font should be 24 Points in “Rockwell” Font for sub-bulleted points.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Times New Roman” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



97. No Internet

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

NO INTERNET

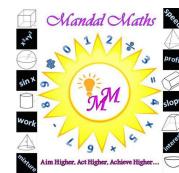
Try

- ✓ Checking the network cables, modem, and router
- ✓ Reconnecting to Wi-Fi
- ✓ Running Windows Network Diagnostics

DNS_PROBE_FINISHED_NO_INTERNET

September 20, 2020 Roll Number: XXXXXXXXXX Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “54 Point” in “Algerian” Font for “Title”
3. Use Font Size of “28 Point” in “Century” for the “Sub-Title”.
4. Size of the Font should be 24 Points in “Century” Font.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Agency FB” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



98. Feedback

Test in Microsoft Power Point

Start “Microsoft Power Point” program and create a Blank Slide, Reproduce the content as mentioned in the Sample Slide given below:

FEEDBACK

- Did you like the material and its content?
 - Yes
 - No
- Please send your feedback at mandalmaths@gmail.com.
- If possible, try to make some exercises of Excel and Power Point.
 - It will take time but it's easy.
 - You may mail the material to mandalmaths@gmail.com

September 20, 2020

Roll Number: XXXXXXXXXX

Name: XXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e. “Add Title” and “Add Sub-Title”.
2. Use Font Size of “44 Point” in “Algerian” Font for “Title”
3. Use Font Size of “24 Point” in “Rockwell” for Bulleted points.
4. Size of the Font should be 20 Points in “Rockwell” Font for sub-bulleted points.
5. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide.
6. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in “Bookman Old Style” Font.
7. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_followed by your Roll Number** (e.g. if your Roll Number is 1001001000, then the name of the file should be SSC_1001001000).
8. Take a print of your slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Your prepared Slide’s Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.



99. Actual Typing Exercise of SSC CGLE Exam

As the House knows, the Prime Minister sent out a circular to all the States a few years ago requesting that the portfolio of agriculture in the States should not be neglected; it should be entrusted to an important Minister. I think the National Development Council considered this question and they said that as far as possible, the Chief Ministers in the States should handle the portfolio themselves. And then, they have started a Food Production Board in the Cabinet itself at the Centre, and the National Development Council has decided that an agricultural production board should be started in each State with the Chief Minister as the Chairman. They have started an agricultural machinery board for supplying machinery. They have taken many steps in addition to the normal measures.

The Government has been doing their very best in this regard. But with all that, it has not kept up with the targets fixed, unless earnest and vigorous attempts are made. I wish to throw out my own suggestions in this regard. They may not be very pleasant but I wish to be excused because I am speaking from experience.

Madam, the first thing is that so far as the producing agency is concerned, its voluntary interest and its enthusiasm must be won. For instance, in industrial labour relations, we go out of the way to invite labour and give it even participation in the management and to do everything for labour. This is just to see that the industrial relations are good and the industrial output will be increasing day by day. Should we not show some consideration for this producing agency, namely, the farmer? Mr. Thomas has shown how agricultural products, even at these increased prices, are not paying to the agriculturist. He has shown that very correctly, and everyone who has intimate connection with agriculture at least will agree to that, and if at all anything, that is an underestimate, not an over-estimate. When that is so, how can we expect the farmer to produce unless he is enthused?

73
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1389
1472
1549
1621
1701
1785
1862
1945
2028
2060

100. Actual Excel Exercise of SSC CGLE Exam

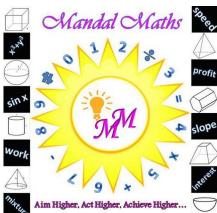
Test in Microsoft Excel

Q1528 - Q15

1. Start Microsoft Excel program and open a new file.
2. Enter your Name and Roll Number in the first two cells of the Worksheet as shown below. Enter the rest of the contents as per instructions given below in the same cell.

	A	B	C	D	E
1	Name	Your Name			
2	Roll Number	XXXXXXXXXX			
3					
4	Balance Sheet of OGT Enterprises Ltd.				
5	PARAMETER	Financial Year 2016-2017 ... (In Crores)	Financial Year 2017-2018 (In Crores)	Absolute Increase/ Decrease	Percent Increase/ Decrease
6	Plants	12,351.73	12,196.42		
7	Investments	121.57	120.87		
8	Others Assets	4,706.16	0.13		

3. Format the cells such that the Text size is **12**, Font is **Century** for all the cells. The Title row (4) should be **Bold** and **Underlined** with Font size **14**. **Merge and center** the cells in the Title row, so that the Title appears as shown. Adjust the column widths, so that the Table appears as shown above. The Table Headings row (5) should be either **Left** or **Center** or **Right** aligned as shown above.
4. Create the border only for the cells that have a solid line shown above.
5. Use appropriate Formulae to calculate the following and populate the shaded cells shown above:
 - Absolute Increase/Decrease from Values of Column B to Column C for each Parameter with proper sign.
 - Percent Increase/Decrease w.r.t. Value of Column B for each Parameter.
- PS: **NO CALCULATIONS SHOULD BE DONE MANUALLY AS YOUR WORKSHEET SOFTCOPY MIGHT BE CHECKED AT LATER STAGE.**
6. After preparing the worksheet as above, save it on your assigned Desktop & Naming the file as "SSC_" followed by your Roll Number (e.g., if your Roll Number is 1001001000, then the name of the file should be **SSC_1001001000**).
7. Insert a Header for the page with [file path] on left hand corner and &[Time]/&[Date] on right hand corner.
8. Take a print of the XLS Worksheet that you have created as per design/data shown above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the file name with complete path, current date and time, are visible on the printout. Please ensure that your Roll Number & Name, are also appearing clearly in the printout at appropriate places.
9. **PLEASE NOTE:** Exercised XLS Worksheet Printout without **correct Roll Number, Name, Handwritten Signature and Handwritten Date**, will be summarily rejected and thus you will be awarded **ZERO Marks**.



101. Actual PowerPoint Exercise of SSC CGLE Exam

Test in Microsoft Power Point
PP2019-12

Start "Microsoft Power Point" program and create a Blank Slide. Reproduce the content as mentioned in the Sample Slide given below:

RETENTION OF e-RECORDS
PP2019-12

CATEGORIZATION OF e-RECORDS

- ❖ Like the physical files, e-Records too are to be stored and categorized.
- ❖ As per CSMOeP, there are only two categories of electronic records: Category I and Category II.
- ❖ Category I are records that qualify for permanent retention for administrative purposes or which are of historical importance.
- ❖ Category II are records of secondary value that are not required to be retained for more than 20 years.

May 14, 2019 RollNumber- XXXXXXXXX0000 Name - XXXXXXXXXXXXXXXXXXXXXXXXXX

1. Use the default Slide Type having 2 Sections i.e., "Add Title" and "Add Sub-Title".
2. Use "Century" as the Font Type for both "Title" as well as "Sub-Title".
3. Use Font Size of "40 Point" for "Title" and Font Size of "24 Point" for the "Sub-Title".
4. Text Content should be bold, italic, underline, aligned and bulleted as per the given sample slide. Size of the Font should be 20 Points in "Century" Font.
5. Insert Footer with Date, Roll Number and Name on their respective locations as shown in the sample slide. Size of the Font should be 14 Points in "Arial" Font.
6. After preparing your Slide as shown above, save it on your assigned Desktop & Naming the file as **SSC_** followed by your Roll Number (e.g., if your Roll Number is 1001001000, then the name of the file should be **SSC_1001001000**).
7. Take a print of your Slide as per design/text shown in the sample slide above on a single A4 Page and put your Signature adjacent to your printed Name with Current Date. Please ensure that the current date and time are visible on the printout. Please ensure that your Roll Number & Name are also appearing clearly in the printout at appropriate places.
8. **Please Note:** Your prepared Slide's Printout without correct Roll Number, Name, Handwritten Signature and Handwritten Date, will be summarily rejected and therefore, you will be awarded ZERO Marks automatically.

