

UNIT – 4
EMERGENCE OF MODERN WORLD

Lesson Structure

4.0 Objective

4.1 Introduction -Modern World

4.2 Meaning of Renaissance

4.2.1 Causes of Renaissance

4.2.2 Italy - The Birth place of Renaissance

4.2.3 Characteristics of Renaissance

4.2.4 The Impact of Renaissance on Literature

4.2.5 The Impact of Renaissance on Politics

4.2.6 The Impact of Renaissance on Arts

4.2.7 The Impact of Renaissance on Science

4.3 Emergence of Scientific Revolution

4.4 Eighteenth Century Philosophers

4.4.1 Pieree Bayle

4.4.2 Montesquieu

4.4.3 Voltaire

4.4.4 Emannel Kant

4.4.5 Rousseau

4.4.6 Adam Smith

4.5 Humanism

4.6 Reformation

4.6.1 Causes of the Reformation

4.6.2 Role of Martin Luther

4.6.3 The Reformation in other European Countries

4.6.4 Counter Reformation

4.6.5 Effects of Reformation

- 4.7 Absolutism and Emergence of Nation States**
 - 4.7.1 Responsible factors of the Emergence of Nation States**
 - 4.7.2 Absolutism in European Countries**
- 4.8 Capitalist Economy**
 - 4.8.1 History of Capitalism**
- 4.9 Secularism**
- 4.10 Post-Industrial Society**
 - 4.10.1 Characteristics and Impact of Post-Industrial Society**
- 4.11 Summary**
- 4.12 Questions for Exercise**
- 4.13 Suggested Readings**

4.0. Objectives :

The objective of this chapter is to highlight the events of Modern World. As we know there is no general consensus on what date or event cuts off the modern history from the medieval one. Historians however generally agree that between the fourteenth and sixteenth century Europe underwent such transformation in its political, economic and social structure that we can call it an age that marks the beginning of the modern period.

4.1 Modern World - An Introduction :

New geographical discoveries initiated prospective changes. Now the European could easily fulfill their economic, political and cultural ambitions. Renaissance provided a strong basis for the realization of cultural and ideological speculations. The expression of man's rational and creative disposition pushed Europe from middle ages into the modern period. Renaissance literature deals with man and everything that relates to him and is written in the language of common people. It was different from the literature of the middle ages whose dominating theme was religion and which was written in Latin. In this period not only literature but art also freed itself from the religious bonds and became realistic. Renaissance encouraged rational thinking and a spirit of enquiry, and demanded religious reform. As a result of continued changes people began to lose faith in the authority of the Church. In place of political units, such nation-states arose as thought it better to rebuff the intervention of the Medieval Church. The rulers in this period proclaimed their sovereignty and Machiavelli's. The Prince greatly helped them by providing a theoretical justification for doing so. However, these changes occurred neither simultaneously nor uniformly at all places. By the seventeenth century, Europe had rapidly changed. It was much different from what it had been in the fourteenth century. This period witnessed several spectacular changes. Geographical discoveries, Renaissance, Reformation, decline of feudalism, rise of new nation states, scientific inventions etc. The seventeenth century prepared an environment which encouraged secularism and rationalism

in Europe and warned the people against the danger of narrow-minded sectarianism. These ideas paved the way for the Age of Enlightenment.

4.2 Renaissance :

The French word 'Renaissance' means rebirth. The movement denotes the rebirth of learning and art as well as the revival of the study and interest in old classics and in the civilizations of Greece and Rome. The Renaissance marked the beginning of an era, when the thinking, attitudes and outlook of the people underwent a drastic change. It ushered in a period of all-round awakening and broadened the horizons of knowledge. This awakening roused the spirit of curiosity and inquiry in the people. An intellectual revolt against the rigid rules conventions and mental slavery was initiated. In short, the Renaissance heralded an age of intellectual, commercial, social, geographical and artistic expansion.

The term Renaissance stands for all those intellectual upheavals which were discernible towards the end of the middle ages. It comprises the intellectual changes which occurred at the end of the medieval and the outset of the modern periods. The changes signify the decline of feudalism; the study of ancient literature; the rise of nation - states; the beginning of modern science, the inventions of moving letters, gun-powder and compass; the discovery of new trade routes; the introduction of primary capitalism etc.

4.2.1 Causes of Renaissance

1. Crusades—The military expeditions undertaken in Europe from the end of the 11 th to the end of the 13th century to recover the Holy Land, Jerusalem, from the Muslims were called crusades. Because of the crusades, the Christians (European) came in contact with the enlightened people of the East. The crusaders met strange people and got new ideas from them. They helped in ending European segregations. Aristotle's scientific books, Arabic numerals, Algebra, mariner's compass and paper reached West through the crusades. Thus the crusades played an important role in bringing forth Renaissance.

2. Commercial Prosperity—The commercial prosperity shaped the Renaissance in four stages:

- (i) The European businessmen came to know about new ideas and progressive elements when they travelled across many countries in connection with business. They came back to their countries with new ideas.
- (ii) The development of business built new cities like Venice, Milan, Florence, Angel Bourg and Nuremburg which influenced the life of the people. The European cities became the centers of international trade and businessman and tourists from different countries frequently visited these cities. This facilitated the exchange of idea and development of knowledge.
- (iii) Businessman accumulated enormous wealth with the expansion of business. The big businessman in cities became the patrons of art and gave shelter to scholars who commenced the creation of extraordinary literature and researches in the field of science.
- (iv) The business class criticized the Church and tried to reduce its importance.

3. Paper and the Printing Press—The invention of paper and printing press resulted in revolutionary changes. Now books were printed in large numbers at a relatively low cost. The monopoly of distinctive persons over knowledge came to an end. With the dissemination of knowledge through books, superstitions and orthodox practices weakened and self-confidence increased in the people and with it the desire for literacy. The drive for cultural awareness intensified. They became aware of their rights.

4. Capture and Constantinople by the Turks—In 1453 the Turks captured Constantinople the capital of East Roman (Byzantine) Empire. With it the East Roman Empire fell for ever and in consequence of it the great learning that spread in the Western Europe heralded the arrival of the new

epoch. Thousands of Greek scholars, philosophers and artists migrated from Constantinople to Italy, France, Germany and England in order to seek subsistence. These intellectuals took with them the science of ancient Rome and Greece as well as the new ways of things.

5. The Rise of the Mongolian Empire—The Mongolian state council was graced and glorified by the cardinals of Pope, the Buddhist monks of India, the craftsmen of Paris, Italy and China and the mathematician and astrologers of India. Therefore, East and West came in the close contact and Europeans were greatly influenced by the exchange of views and learning as well as with close contacts with the people of various countries.

4.2.2 Italy The Birth Place of Renaissance

The gleam of Renaissance first spread in Italy and from there its light diffused in Germany, England and other European countries. Why did the Renaissance begin in Italy only ?

The development of social classes there, had been different from that in other European countries. The prestigious sections of Italian aristocracy, old decadent families and newly rich business classes assembled in cities and established, for the first time in Europe, a consolidated community. Virtually, the atmosphere of liberal and free thinking was conducive to sowing the seed of Renaissance.

(2) Italy was a rich country; its source of richness was overseas trade. Thus Italy becomes a famous commercial centre. The increasing trade and prosperity in Italy afforded solid ground for the fruition of Renaissance.

- (a) Because of commercial activities, some important cities like Milan, Naples, Florence and Venice were established. The Italian businessmen frequently visited Baikan Peninsula, West Asia, Byzantine and Egypt. Arabian and Iranian businessmen often visited the above-mentioned cities. Besides, the soldiers returning from crusades took a respite for a few days in the cities of Italy before marching ahead. They related the details of Muslim cities and Muslim civilization to Italian citizens. It enlarged their outlook. Cities provided a backdrop for Renaissance, for they had museums, public libraries and theatres, which are organs of cultured life.
- (b) The bourgeoisie (the business or middle class) emerged out of Italian prosperity. The Italian business class became so influential that it did not care feudal lords and the Pope. This class violated most of the medieval conventions and strengthened the spirit of Renaissance in Italy.
- (c) On the strength of business and industry, Italy became a rich and prosperous country in Europe and the businessmen made up their minds to patronize artists and literary persons in order to make good use of their surplus money. Men of letters, writers and artists got opportunities of producing good works bearing the imprint of their unrestrained spirit, under the patronage of Italian businessmen. Florence alone patronized maximum number of artist, writers and poets. They included Dante, Petrarch, Boccaccio and others.

(3) Another reason for the birth of Renaissance in Italy is that it has been the birth place of ancient Roman Civilization. It is apparent that the Roman culture turned out to be centre of inspiration for Renaissance.

(4) Rome, where the Pope dwelt, was still the centre of the entire West European Christianity. Moved by the spirit of Renaissance, some Pope brought great scholars to Rome and got the Greek manuscripts translated into Latin. Pope Nicholas V (1447-1455) opened Vatican Library and built

Saint Peters' Cathedral. Entire Rome was built under his guidance. Pope's work affected other parts of the World.

(5) When the Turks captured Constantinople in 1453, a large number of fugitive Greek scholars, artists and businessmen first took shelter in Italy and then many of them settled there. The fugitive scholars brought with them the most invaluable manuscripts of ancient Greek Literature containing as deep knowledge of which the European were quite ignorant. This learned class became the precursor of awakening.

4.2.3 Characteristics of Renaissance

Renaissance redeemed people from the grip of medieval religion and conventions and proposed logical rational thinking and resolve to accept only those facts which conformed to the logical standards.

(1) In this age the spirit of empiricism (relying on experiment for the validity of thoughts) was encouraged. Roger Bacon was the fore-runner of empiricism.

(2) One of the characteristics aspects of Renaissance was 'humanism'. Humanism means to take interest in human life, to show respect to human beings, to accept the importance of human life and to make creative efforts to improve it. The humanists maintained that the good of life and culmination of happiness lay in the welfare of people and not in serving God or demonstrating military valour. The name of Erasmus figured at the top in the field of humanism. Johann Reuchlin and Philip Melancthon were noted German humanists. The impact of Renaissance can be seen in various fields. These are discussed as follows.

4.2.4 The Impact on Literature

The literature written in the Renaissance period was very important. People in various countries produced literature in their native tongues, which caused the development of Italian, French, Spanish, Portuguese, German, English, Dutch and Swedish languages. The Bible was translated into several languages in this period. The other key characteristics of the Renaissance literature is its theme. The Renaissance literature put stress on description of human life and activities in place of religious subjects. Now literature reflected critical, humanistic and individual spirit. Three great writers of that period - Shakespeare, the English dramatist; Rabelais, the French satirist and Cervantes, the Spanish poet and playwright, did not choose religious themes. They endeavored to describe the simple incidents of human life in their writings.

(a) Italian Literature: The foremost Italian writers who imbibed the Renaissance spirit are: Dante (1265-1321), Francesco Petrarca (1304-1374) and Giovanni Boccaccio (1313-1375). Italian literature was enriched by Dante's poetry, Petrarca's biographies and Boccaccio's stories. Dante's famous work 'The Divine Comedy' deals with his imaginary journey through Hell, Purgatory and Paradise. This great comedy imparts the moral that a man should lead his life with morality and austerity. Through it the poet teaches how to love people, land and nature. He is called the father of Italian poetry. Petrarca did not choose a religious theme for his work because people were tired of reading such a boring theme. He opened several libraries and inspired among people a love for books. His greatest contribution is that he ignited the interest of his countrymen in ancient Greek and Roman literature. It is the humane interpretation of the works of antiquity, from which the term 'humanism' is derived. Petrarca strengthened the spirit of humanism in entire Europe. As a humanist, he was the first person to represent the Renaissance. He is therefore, called the father of 'humanism'.

Boccaccio, a disciple of Petrarch, represented the Renaissance whole-heartedly. His best work '*Decameron*' proves his story-writing forte. He has projected a new style of story - telling in these humorous stories and has highlighted the moral degradation that prevailed among the elite of Italian society. Besides Dante, Petrarch and Boccaccio, other Italian poets like, Ariosto, Tasso, and Cellutani made distinctive contribution to Italian literature.

(b) French Literature: - Rabelais (1495-1553) and Montaigne (1553-1592) of France belong to the Renaissance period. Rabelais raised his voice against religious fanaticism and orthodoxy. He ridiculed the fanaticism and superstitions of the rich. In his prose and poetry, he has followed satiric tone. The keynote of Rabelais' literature is: "Thirst for intelligence, morality, experience and truth" This thirst became the foundation of Renaissance.

Montaigne occupies the foremost position among French writers. The credit for the art of essay-writing goes to him. He has written a good deal of essays in the simple and Lucid French. The topics of his essays relate to friendship, polity, education, war etc. He was not only an essayist but a humanist too. In the matter of writing and thinking, he was Voltaire's fore-runner. He stood, up against the prevailing rule and the medieval anarchy. Therefore, the title "The first modernist" was bestowed on him.

(c) English Literature:- English literature too was affected and inspired by Renaissance. The great poet Geoffrey Chaucer (1340-1400) is called "The father of English Poetry". His significant work is '*Canterbury Tales*'. It reflects the impact of Boccaccio's *Decameron*. Thomas Moore (1478-1539), who furthered the cause of Renaissance. His great but controversial work is *Utopia*. He analyzed the social evils and economic discrepancies which dominated the life of the English people. Francis Bacon (1561-1626) was the best essayist of this period. He possessed a multidimensional talent. He had the fine traits of, a politician, advocate, humorist, philosopher and writer.

The greatest contribution that English had made to the cause of Renaissance is William Shakespeare (1564-1616). He was the greatest poet and dramatist of this period. His literary works are outstanding and matchless in terms of style, language and presentation. He has written famous comedies and tragedies. His most significant plays are: Merchant of Venice, Romeo and Juliet, Hamlet, King Lear and Macbeth.

(d) Literature in Other Languages : The Renaissance influenced many other countries such as Holland, Germany, Spain and Portugal. Significant literary works were produced in the languages of these countries. Erasmus of Holland a prominent humanist writer pursued his study at different places and absorbed the message of plain and clear moral truth. On the strength of his inimitable style and great erudition, he became a great scholar of Europe. He wrote many books but his "*In the Praise of Folly*" is famous. He has satirized in this book, the hollow and hypocritical religious ways of life, superstitions of the public, greedy rulers, ignorance of the religious luminaries, defects of the educational system and ferocity of war. "*In the Praise of Folly*" was the first book that had the highest sale in the world. Cervantes (1547-1616) wrote "Don Quisote" in Spain. He is considered a great writer of Spain. His book is a great satire on the feudal life of that period.

4.2.5 The Impact on Politics

The spirit of the Renaissance did not immediately bring about democracy in the political field. The Greek spirit of democracy did not penetrate into Europe but Renaissance brought about the downfall of feudalism. The feudal order with its serfs and lords began to disappear. The unsettled

conditions produced by the transitional phase where the existing political system had weakened often led to conditions of anarchy and led people to place their trust in strong monarchies.

Dante is at the top of political thinkers. In his book, "The Monarch" he stated that the sovereign should be supreme in non-religious matters. Mareiglio (1275-1343) in this book '*Defender of peace*' has criticized Pope's political intervention. The greatest thinker of that age was Machiavelli (1469-1527). He lived in Florence and had been a secretary to many kings. His famous work is "*The Prince*". Machiavelli's thinking was above religion. He firmly believed that religion weakened states. Pope as well as Christian priests censured Machiavelli. His outlook was based on reality and he justified adopting any means for achieving the goal. His ideology influenced many European rulers. Another important thinker of the Renaissance period was Hobbes of England.

4.2.6 The Impact on Art

The art of this period aimed at establishing harmony between life and nature. No doubt religious subjects were still chosen for artistic expression but beauty, decoration and love were not totally disregarded and humanity was given prominence. In this age art prospered considerably in comparison to other things and a new form of art originated.

(a) **Painting**—During the Renaissance the highest development was achieved in the field of painting. The style of art advanced to culmination by becoming attractive, pleasant, and graceful. Giotto of Italy (14th Century) dispensed with the Byzantine style and made paintings of man and nature. Giotto is called 'the father of painting'. The artist and painters of the Renaissance period carried out a minute study of human anatomy and observed how the muscles and joints of human body bulged in different activities. So they made their works very life-like.

Among the early painters of new style, Italy's Fra Angelico (14-15th Century) and Masaccio (15th Century) are very famous. But the contribution of three Italian artists was unprecedented and they gave full exposure to the spirit of Renaissance. These famous painters are: Leonardo da Vinci (1452-1519), Michael Angelo (1425-1564) and Raphael (1483-1520).

Leonardo of Florence was an inimitable and versatile genius. He was a scientist, mathematician, engineer, musician, philosopher and painter - all rolled in one. He is highly honored in the world of painting. At the age of fifteen he became a disciple of the famous painter Varragnio and surprised his master with his great innate skill, and beauty of his portraits. At the age 28 he had established himself as the greatest painter of his times although there were great artists like Michael Angelo, Raphael and Bottavellis. He drew innumerable sketches of warriors, old people and veins and muscles of human body in such a way that every painting exhibited the apparent structure of distinct objects. 'The Last Supper' and 'Mona Lisa' are his masterpieces.

Michael Angelo is reckoned as an accomplished painter. In addition to being an artist, he was a sculptor, an architect, an engineer and a poet too. He takes man for the most excellent work of nature. On the ceiling of Sistine Chapel in Rome, he has painted in fresco the scenes from the Bible. The 'Last Judgment' is his greatest painting which he completed in eight years in 1541.

Raphael also occupied an important place in the history of Renaissance arts. He is influenced by both Michael Angelo and Leonardo Da Vinci. He has beautifully painted the emotions, affection and motherhood. His greatest work is the portrait of Madonna - the mother of Jesus.

The influence of Italian paintings was manifest on other European countries. A few famous artists of that period were Lucas, Duirer and Henis Dalvin in Germany; Degavallis Kaith in Spain and Van Eyek brother in Holland.

(b) Architecture—A great progress was made in the field of architecture. In the middle ages, the Gothic style prevailed everywhere, but a new style was born in the age of Renaissance. It was a blend of Greek, Roman and the Arabian styles and laid great stress on design and decoration. Round arches were built. This new style originated in Italy and spread over other countries rapidly. The Florentine architect Filippo Brunelleschi (1377-1446) was the fore-runner of this new style. Arches, cupolas and columns were prominent in this style. He built horseshoes (round) arches in place of the pointed ones.

Michael Angelo was the most famous architect of 16th Century. With of Raphael, Michael Angelo built the St. Peter's Cathedral in Rome. The' magnificent and massive dome of this cathedral is the marvelous achievement of the Renaissance architecture. Lubre Palace in Paris, St. Paul's Cathedral in London and Escorial Palace in Spain are the matchless monuments of the Renaissance architecture.

(c) Sculpture—The architectural art and sculptural art flourished together. Lorenzo Gipperti (1378-1455). Donatello (1386-1466) and Michael Angelo were great sculptors of that period. They not only sculpted the idols of Jesus and Mary but also chiseled the statues of some prominent personalities.

The art of Italian sculpture left a great impact on the art of England, Germany, France and Spain. The tombs of Isabella and Emperor Ferdinand in Spain reflect a new style. Henry VII in England and Francis I in France promoted this new style. Both the rulers invited Italian sculptors to their countries. By and by the new style spread over the entire Western Europe.

(d) Music—Music progressed considerably in Renaissance period. Martin Luther introduced a new religion and kept the provision for songs in its. Giovanni Palestrina (1524-94) was a famous Italian composer who earned immense popularity. Pope approved of Palestrina's musical notes (printed music) meant for prayers. Maskindas was another famous composer of this period. With the co-operation of some Italian musicians, he developed a new style of Renaissance music. The importance of music increased in the 16th century. Instrumental music gained popularity and catered to the public entertainment. Violin replaced the medieval ribic which sent strident notes. Harpsichord was another important new musical instrument. It was the prototype to piano.

4.2.7 The Impact on Science

The significant cause of scientific progress may be summed up as: - (i) The Protestant Revolt redeemed people from the clutches of religions and urged them to think freely and independently, (ii) The spirit of humanism cultivated an intellectual insight among people, (iii) The thinking of philosophers underwent a considerable change as they focused their attention on future, (iv) A scientific outlook gained momentum because of the rise of nation states and new social set-up, (v) The discovery of new countries inspired people to gain more knowledge about new things and new countries.

Francis Bacon (1561-1626) of England defined scientific outlook in these words, "Knowledge is gained by means of observation and experiment." According to Bacon, "The person who wants to seek knowledge should, first of all, study the series of incidents that take place around him. Then he should concentrate on the events. When he formulates a theory of feasibility in respect of the possible causes of happenings and when he is convinced to his observation, he should examine it practically." This type of scientific process was started in the Renaissance Period.

The Alexandrian astronomer Ptolemy asserted in the 2nd Century that the earth is the centre of the universe. But the Polish scientist Copernicus (1473-1543) rejected this theory in the 16th Century. He explained that the earth is a planet and rotates round the sun. Copernicus deduced it by way of observation and calculation. Since, the theory of Copernicus was against the Bible, people did not give credence to it. Copernicus was constrained to stop propagation on his new theory under the order of Pope. The Italian scientist, Giordano Bruno (1548-1600) was burnt at the stake by the Inquisition when he supported Copernicus' Theory and disseminated it. The German astronomer Johann Kepler (1571-1630) justified the theory of Copernicus on the basis of mathematical proofs. He stated that planets rotate round the sun and their course of rotation is not circular but elliptical. The renowned Italian scientist Galileo (1564-1642) also subscribed to the theory of Copernicus and saw the sun stars and other planets through a telescope made by him. Because of his revolutionary new theory, Galileo became the target of the Church-wrath. Contrary to Aristotle's theory, Galileo also proved that the velocity of falling masses depends not on their weight but on the distance from which they fall.

In this age the great scientist of England, Issac Newton (1642-1727), formulated the law of gravitation which greatly influenced the science of astronomy. He proved that owing to the gravitation force of the earth, everything falls on the earth, Newton's observation influenced people immensely. It became clear to them that the world is regulated by well organized laws of nature and it is not a divine creation or a sudden happening as so many people thought.

Besides astronomy, there was a remarkable progress in the field of Medicine, Chemistry, Physics and Mathematics. Andreas Vesalius (1514-64) of Netherlands studied Medicine and Surgery deeply and wrote a famous book entitled 'The Structure of Human Body' in which he described in detail the anatomy of human body. William Harvey (1578-1657) of England enunciated the law of blood circulation. This knowledge corrected old misconceptions, and the symptoms of diseases were diagnosed properly. In the field of industrial technology, there was an enormous progress in Mineralogy, Metallurgy and Chemistry. The need for metal led to digging mines. In order to cope with the capitalistic production, mines were dug on a large scale. As the mines became deeper, pumps and drilling tools were required. After that people's interest in the laws of Mechanical and Hydraulic operations increased. Some general laws of chemistry were formulated in connection with division, use and smelting of some metals like Iron, Copper, Zinc, Bismuth and Cobalt. So the process of oxidation, reduction and distillation were invented. For the first time alloys were used in Medicines. The contribution of Paracelsus and Holdmont in the field of Chemistry is very significant. Paracelsus has proved a close affinity between Chemistry and Medical science. Holdmont discovered Carbon-d ioxide gas. Descartes (1596-1650) was a French Mathematician and Philosopher. He was the first person to make use of algebra in Geometry. He originated skepticism in science which accelerated its progress. Galileo has contributed greatly to the cause of Physics. He invented the Law of Pendulum which made the production of watches possible. He also invented the barometer.

Thus, the Renaissance scientist coursed through skepticism, observation and experiment and invented a specific scientific approach which is being followed even today. The inventions and discoveries of the Renaissance period laid the foundation of a new epoch and directed people towards a better and progressive way of life.

4.3 Emergence of the Scientific Revolution :

From the mid sixteenth to the mid-eighteenth century, the new scientific outlook based on observation and experiment achieved overwhelming success. Because of this scientific outlook, the tremendous growth of science and industry was termed 'scientific revolution'. The scientific revolution shattered the ancient, inveterate and universal beliefs. The scientific outlook began to cover the world. Because of the developments which occurred in the latter half of the seventeenth century the diverse fields of modern science were inundated with novel activities. The stable governments of England and France also contributed to it. The people who enjoyed independent rich resource, contributed money for scientific pursuits and established their own observatories and laboratories. Science became more institutionalized. In 1645, informal sessions of scholars were held in London which resulted in the formation of "The Royal Society of London." These sessions included scientists, businessmen, noblemen and priests. The Royal Society of London was systematically founded in 1662. It (Royal Society) entertained correspondence with the council of scholars in foreign countries and started the publication of magazine called the 'Philosophical Transactions'. The "French Royal Academy" also has done remarkable work in connection with promoting scientific pursuits in Europe. The French Royal Academy was established in Paris in 1666, by Louis XIV on the recommendations of his Finance Minister Colbert.

The roots of scientific outlook were seen in three different centers and subjects. Italy was the first centre and the subject was realistic art. The second centre was South Germany. It was a hilly region that stretched from Nuremburg to Crachko. The scientists there demonstrated keen interest in mines and metallurgy. Here, the principles and practice of metallurgy were developed. The third centre comprised Spain and Portugal. By means of geographical discoveries, these centers explored the geographical dimensions of the world and opened the doors of the new world. Their collective efforts and overall impact of geographical discoveries provided new horizons of thinking and understandings. New methodology of experiment and observation and the idea of looking at the world as a machine, not only influenced the natural sciences but also affected the feelings of educated people and the ways of their thinking about the world. The scientific methodology influenced politics, economics and other subjects.

The Renaissance provided a background to the origin of scientific outlook. The Renaissance artists also helped to promote science. They expressed their tastes in human anatomy, Physiology and geometry. Leonardo Da Vinci was the first modern thinker and scientist who differed from the majority of the fifteenth century thinks and bypassed the statements of scriptures. He made unremitting efforts for understanding the functions and causes of different aspects of life and nature by means of direct observation and experiments.

Prior to Copernicus, Leonardo had clarified that the sun does not revolve round the earth and the earth is a planet like the moon. He declared much before Galileo that distance accelerated the speed of a falling object. He was the foremost genius in the study of light hydraulics and Phonetics. He stated that sound travels in waves. From the phenomenon of thunder-light, he deduced that the speed of light is faster than that of sound.

Much before the industrial revolution, he invented a huge crane which could lift any church from the ground. He manufactured a steam-operated piston and a bicycle-type chain having ball-roller structure which did not slip. He was first person to reveal the fact that energy might be produced

by way of the force of air; for divers he prepared a special suit having a breathing tube; and also a two-mast warship which because of its inner-mast, could float even when its outer structure was wrecked. Leonardo's original genius may be observed even in aerodynamics. With his extraordinarily keen vision, he would observe the moving objects and draw their sketches.

Earlier it was held that the sun and stars revolved round the earth, but Copernicus refuted and changed that concept. He had a keen interest in astronomy and observed heavenly bodies for 30 years with the help of a very simple apparatus. He kept his discoveries secret for a long time. He knew that his new doctrines would fetch him the wrath of the Church, public ignominy and ridicule. In 1543, when he was on his death bed his friends handed over to him the first volume of his book .

Copernicus refused Ptolemy's doctrine by declaring firmly that, "The sun is the planetary centre and the earth and other planets revolve round the sun. 'Copernicus' theory generated the idea that the world stretched to infinitude and the earth is a small part of it. His work 'De Revolutionibus Copernicus' (the rotation of heavenly bodies), did not start a scientific revolution but accelerated scientific progress .

Undoubtedly, his 'Solar Centre Universe-Hypothesis' influenced the overall human thinking. The earth did not remain the centre of universe. Like innumerable planets, it is also revolving with its numerous creatures. The planetarium is not very near. All these discoveries proved man a dwarf before the universe. The Italian scientist Giordano-Bruno (1548-1600) made certain improvements in the theory of Copernicus. He was marvelous exponent of science. Bruno secretly studied Copernicus' book and became aware that religion is based on a wrong concept regarding the facts about the world. The priests were tutored by back-bitters against his scientific outlook. So he disappeared from the monastery to escape punishment. He wandered from place to place. The Church did not allow him too, peacefully.

Bruno firmly declared that the universe is infinite; it is limitless and unfathomable. Neither the sun nor the earth is the centre of universe. The universe is a collection of innumerable stars where every star like the sun is far away from it. He emphasized the fact that the earth revolves round the sun and it's flat at poles. Because of his anti-religious thoughts, Bruno had to struggle for seven years with the Christian courts-inquisition. Finally, according to the verdict of the priests he was burnt alive on the stake on 16 February, 1600.

Several of Bruno's conceptions were authenticated and verified by the Danish scientist Tycho Brahe (1546-1601). With the help of the King of Denmark, Brahe built a modern observatory for the first time. On the strength of Bruno's observations on planets Kepler succeeded in discovering the orbits of planets.

The German astronomer Johannes Kepler (1571-1630) pointed out, in his work 'Mysterium Cosmographicum' that the planets revolve round the sun and their orbits are not circular but elliptical. It confuted the conceptions of Plato and Pythagoras that the planets have circular orbits.

Like Copernicus, the noted scientist of Italy Galileo Galilee (1564-1642) invented a telescope. As a matter of fact, the telescope was the greatest scientific apparatus of that period. By means of the telescope, Galileo observed the heavens and found the evidence of the truth of the conceptions of Copernicus. The telescope disproved the heavenly conceptions of the medieval period. He saw that the moon is not totally spherical but contains mountains and seas: He could see the satellites revolving round Jupiter. After observing spots on the sun, Galileo deduced that the sun rotates on its axis. He published his scientific observations in his Book 'Sidrus Nontius'.

Other exhaustive work of Galileo, "Dialogue Concerning the Two chief Systems of the World, the Ptolemaic and the Copernican" was published in 1632. He bitterly criticized Ptolemy's cosmology and ridiculed him. The new theories shook the foundation of old religious thoughts. Galileo's theories clashed with the Church. Galileo was prosecuted and compelled to retract his ideas at the age of 70 .

Galileo discovered new facts in the field of Physics also. He stipulated a theory that the speed of falling masses depends upon the distance travelled by them and not on their weight. The methods of diagnosis had begun to improve since the sixteenth century. First of all, the veronese pathologist Girolamo Fracastoro (1474-1553) revealed that the cause of diseases is not only the deficiency of body fluids or their imbalance but there may be some outward causes also Fracastoro's great fame rests on his significant researches on syphilis. Before the sixteenth century people did not have any specific knowledge about this disease. He wrote a voluminous book on the contagious diseases in 1546. He revealed for the first time how a contagious disease is transmitted from one person to another.

William Harvey (1578-1658) an Englishman was one of the prominent scientists of the sixteenth century. In a book published in 1628, Harvey proved that the blood has a definite circulation because it goes out from one part of the heart and enters through the other. Harvey revealed that our body is like a hydraulic machine and has no place for an esoteric soul. He held that heart has as much importance in the body as the sun has in the world. Harvey's discovery paved the way for a systematic physiology. From that time, new facts regarding human anatomy were explored by means of post-mortem.

Robert Boyle (1627-91) did-remarkable work in the field of chemistry. He demonstrated that the volume of gas is inversely proportional to pressure. Boyle also stipulated that there are certain elements which combine together to make other objects. Boyle's law proved to be very helpful in the growth of Chemistry. The credit for transforming Chemistry into a pure science of modern age goes to Boyle. The British scientist Francis Bacon and the French scientist Rene Descartes strove hard to popularize the scientific discoveries. Francis Bacon greatly influenced the thinking of the seventeenth century. In this book 'Novum Organum', he explained the ways of scientific study. He formulated the scientific method of experiment and observation.

Newton's discoveries proved that it was not possible for the Church to crush the scientific tradition in the changed socio-economic conditions of that time. Bruno was burnt on the stake and Complena (1568-1639) was put in prison for many years for refuting Aristotelian thoughts and supporting the Copernican theories. The Church almost stopped its intervention in the scientific pursuits by the time Newton came of age.

The Great British scientist Issac Newton (1642-1727) began to ponder over the unique power which keeps the planets in their orbits and checks them from going astray in space. In his important work "Principia Mathematica" published in 1685, Newton, proved on the basis of mathematical laws that the nature works on the principle of "Universal Gravitation" which explains why earthly bodies move downwards instead of upwards. Newton revealed how the universal gravitation maintains the existence of cosmos. From the synthesis of physical knowledge presented by Newton, it became clear that the process and objective reality of the world can be fully understood. Other significant contribution of Newton to the scientific progress was his discovery of the method of infinitesimal calculus. With the application of infinitesimal calculus, Newton formulated the law of motion. Newton's inventions left an indelible impact on the world. It was now clear that the world was not a heavenly incident or a sudden event as so many people had thought earlier, but it is a thing which is regulated

by the well-organized, systematic laws of nature. Political, social, religious and commercial institutions were studied from a scientific point of view. The conventional ways of thinking began to evaporate and modern scientific outlook originated.

4.4 Eighteenth Century Philosophers :

The thinking of eighteenth century manifests the influence of scientific outlook. In that century, a new outlook developed in the intellectual sphere which promoted rational inquiry collective called 'enlightenment'. During the age of enlightenment, many writers made a good use of their intelligence in exposing social evils. The slogan of the intelligentsia was 'reason, tolerance and humanity'. Some of the important intellectuals are discussed below.

4.4.1 Pierre Bayle (1647-1706)

Pierre Bayle the contemporary writer of Louis XIV was a lecturer of Philosophy in Geneva. His works display facts and logic in abundance. He opposed pedanticism which had gripped the people's mind badly for a long time. On seeing a comet in December, 1680, Bayle wrote a scientific article on comets in order to dispel the inveterate superstition about them. He explained that comets are like other stars. To utter something against religion was an unusual act in that period. Bayle's important works carried the imprint of the Calvinistic interpretation of religion but he formulated an impartial outlook. He backed the truth. In the matter of religious outlook, Bayle seems too modern. In 1688, he wrote another books entitled, "What Holy Catholic France under the Regime of Louis XIV Really Is?" He condemned the "Edict of Nantes" passed by Louis. In 1697, Bayle published his book entitled, "Historical and Critical Dictionary". In his dictionary, he has taken up an in-depth study of the lives of scientists, historians, theologians and Philosophers and their works and thoughts. Bayle's great importance becomes apparent from the fact that later on great writers like Montesquieu and Diderot imitated his style.

4.4.2 Montesquieu

Montesquieu was a philosopher, idealist and historian. He was born on January 18, 1689, at 'Chateau de la Brede'. In his early works he tried to prove that the study of human beings without a study of their natural environment is incomplete. His first famous work 'Letters Persanes' appeared in 1721. It is an amusing work, written in a satirical tone. These letters aim at social reforms by means of satire.

'De Le Spirit des Lois' (The Spirit of Laws) is the most famous book of Montesquieu. It was published in 1748 and deals with Montesquieu's conception of jurisprudence. In that book, he has raised to show relation among social, geographical, political and economic forces and has discussed various systems of governments. He condemned the divine rights of the king and supported constitutional monarchy. He maintained that in order to exercise an effective control over the absolute monarchy, it is essential to keep the three organs of government the executive (which enforces laws), the legislative (Which makes laws) and the judiciary (which implements laws) separate. The separation of powers exercises goods check upon one another. He recognized two essential conditions for legal government. First, the separation of powers and second, checks and balance.

4.4.3 Voltaire

Among the French writers of the eighteenth century Voltaire is very popular. He was a writer, poet, philosopher, journalist, critic and above all the satirist. In dozens of his novels, historical books, letters, essays, plays and poems, he condemned the corruption in the Church, the privileges of the aristocrats, censorship, slavery and war.

In his famous book "Letters on English" published in 1733, he narrated the experiences of his stay in English. He supported the view that the interests of the governed masses should be kept in view while making laws for them. He held that punishment should be commensurate with crime and should be awarded only when there is full evidence against a criminal. He also stressed that the language of law should be simple so that people might easily understand. His famous work was 'The Age of Louis XIV',. In his book, 'Treatise on Tolerance' published in 1763, Voltaire called intolerance not only undesirable but also a blemish on human behavior. Voltaire has the credit of diffusing knowledge, intelligence and principles of nature not only in French but in entire Europe. Voltaire's writings proved to be very effective inclining people towards intellectualism and new ideas.

4.4.4 Emmanuel Kant (1724-1804)

The German philosopher Kant was born in a poor family in 1724. His writings include - (i) Critique of Pure Reason, (ii) Judgment, (iii) Practical Reason, (iv) Metaphysics: First Principle of the Theory of Law and (v) Eternal Peace. Kant enjoys a very high place among the German scholar. He opposed extreme materialism spread by the philosophy of individualism and emphasized that man's soul force is more important than his physical force. Personal experience is not always right and reason is essential for distinguishing between right and wrong. He also developed the concept of universal moral law and freedom. He believed that law protects and inspires freedom. He also awakened the spirit of nationalism and national integration. He gave greatest importance to the concept of moral will and freedom.

Kant is criticized for advocating the sovereignty of the people on the one hand and justifying the existence of an absolute monarchy on the other. He gave too much importance to moral freedom and in spite of his idealism leaned towards individualism.

4.4.5 Rousseau

Rousseau was the most intelligent philosopher of France. He wrote several essays and novels and in the end, his autobiography. In his essay entitled "Discourses on Science and Arts", Rousseau criticized modern civilization openly and severely. According to him, material happiness does not indicate progress. Modern progress is leading man to his downfall. The progress is connected with moral development. In modern society, morality is replaced by disparity, corruption, cruelty and jealousy. Rousseau's most famous books entitled "Social Contract" (1762) opens with this sentence: "Man is born free but he is everywhere in chains." In the primitive age, people enjoyed freedom, equality and fraternity. As man became civilized, he made a contract to consolidate power and gave birth to state. In fact, the growth of property necessitated the origin of state.

Rousseau condemned the artificiality of the society and laid stress upon following the ways of nature. The slogans of equality, liberty and fraternity during the French Revolution were inspired by his ideas. Napoleon has truly stated that "If Rousseau had not taken birth, the emergence of French Revolution would have been impossible."

4.4.6 Adam Smith (1722-1790)

Adam Smith was a Scottish writer considered freedom of business essential for the prosperity of a nation. He stated that businessmen should be permitted to do any trade and laborers should have the freedom to do any job. Smith influenced the principles of economics so much so that he is called the father of modern economics. His policy of 'Laissez-faire' gained enormous popularity among businessmen in the eighteenth century.

4.5 Humanism :

During the intellectual revolution man was the centre of thinking. The welfare of human beings was considered the ultimate goal. It was widely accepted that the state, the Church and other institutions should strive only for the welfare of mankind. Instead of bowing to the will of a superpower, emphasis was laid on all human activities for making the human destiny. The intellectual revolution established human prestige, human rights and human ideals.

This revolution rejected the medieval conventions, and people tried to understand the reality of every subject by examining it through the norms of science and wisdom. The intellectuals of that period were influenced by their earlier scientific progress. They focused their attention on the demerits of the Church, shortcomings of governmental administration, social disparity as well as exploitation and degenerating economic condition. With the establishment of new ideals in various fields, a hope for bright future stirred the mind the people. The new thoughts which developed in various field contained some common features which, despite dissimilarities, may be enumerated as follows: -

- (a) Generally, the new thinkers held that the world is like a machine which works according to some natural laws. The world is governed by laws of nature-which are eternal and everlasting.
- (b) It is good for man if he discovers natural laws and acts according to them instead of violating them.
- (c) The natural laws may be understood by means of intellect and reasoning. Only those laws which are logical and intelligible are true and beneficial for people. The Laws which are irrational and based on old conventions, practices and beliefs may not be beneficial.
- (d) Everybody is endowed with intelligence with which he can acquire the knowledge of natural laws. Everyone is born alike. The prime reason of disparity among the intellect and people is that everyone does not get an equal opportunity of education and progress. Hence every man is entitled to an equal position and importance in society.

The enlightenment movement played a very decisive role in France in the eighteenth century. Most protagonists of that period were either French 'or influenced by French ideas. The tradition of the protagonists of French intellectual revolution is known as "intellectualism". The intellectuals were chiefly rationalists. They fostered the spirit of humanism which gives priority to human freedom. Humanists preferred human prestige, human rights and ideals. They were selfless activists. As soon as the humanists identified any fact in terms of truth and humanism, they did not shirk from unremitting struggle in order to establish it.

4.6 Reformation :

The Reformation may be perceived as a religious movement which brought about a revolt against the supremacy of the Roman Catholic Church and established a new form of Christianity called Protestantism. As a consequence, papal authority was fully cast off in countries where the Reformation had been successfully introduced. Reformation swept the whole of Europe and loosened the hold of the Church. In the Middle Age, the Church controlled every aspect of man's life and activity. Political institutions, economic, literary, and artistic activities were dictated by the Church. It was a period of absolute and unquestioned faith in the Church and whatever the Church preached was followed blindly. There were a few individuals who protested mildly against the Church but they

could do nothing to improve the situation. With the onset of the Renaissance, the doctrines and ways of the Church were subjected to scientific inquiry. Ideas of absolute faith were discarded and reformers like Wycliffe, Huss, Luther and Knox advocated the idea of need for a change.

4.6.1 Causes of the Reformation

Renaissance—The beginnings of the Reformation were closely related to the Renaissance. The spirit of inquiry led to a thorough investigation of the affairs of the Church and attempts were made to expose the weakness of the Church. Scholars began to realize that many doctrines preached by the Church were not mentioned in the Bible, they regarded the Bible as a original word of God and they criticized the Roman Church for deviating from it. In the middle ages, a Latin translation of the Bible called *Vulgate* was read by the scholars of Latin. The common people without any knowledge of Latin were supposed to accept the teachings of the Bible as explained to them by the priests. This situation was changed by the advent of the Renaissance. Scholars tried to eliminate the errors which had crept into the translation of the Bible from Hebrew and Greek into Latin and denounced the corrupt practices of the clergy. Reuchlin in Germany, Lefebvre in France spent their lives critically examining the text of the scriptures on which the Christian teachings were based. These thinkers wanted to purify and rejuvenate the Church.

Religious—At the close of the fifteenth century, the Church had lost much of its early piety. The clergy had become rich and worldly and lead luxurious lives. The teachings of Christ had been forgotten, the clergy openly broke the vows of celibacy, poverty, and service. Corruption had crept in, and the popes led a life of unrestrained and scandalous dissipation, and most of the clergy followed in their footsteps. There was a strong protest against the growing practice of the sale of Indulgences. These Indulgences were pardons for sins committed which could be bought by paying a certain sum of money. These purchasable pardons further corrupted morals because it was believed that a person could commit any number of sins and still be pardoned by paying money to the Church. The evil of simony or the sale of Church office was a very common practice. The Church started paying more attention to secular matters rather than to spiritual problems. People who wanted to lead their lives in accordance with religious sanctions were disgusted with the decadence and moral degeneration of the Church.

Economic—The Church exerted an overpowering influence on political life as well. Along with political power, the Church acquired economic power as well, with the emergence of the Holy Roman Empire. Pope became haughty and vain because of their unlimited power. The Church overstepping its boundaries assumed control of the political activity of the princes and kings. In England, Spain and France, powerful monarchies grew, and the rulers tried to limit the powers of the Church so as to minimize its' interference in the political affairs of their kingdoms. To assert their authority, rulers began to disobey papal orders and levied tax on the Church property. Prior to this, the clergy had been exempted from taxation, and were not subject to the jurisdiction of the royal court, but at the same time were empowered to set up courts and impose punishments. The Kings and princes did not enjoy sharing their secular powers with the clergy.

Nationalistic Feeling—The Renaissance gave rise to a nationalistic feeling in Europe. As a result, people began to resent the spiritual authority of foreigners - the Roman Church. They hated contributing money for the papal court, and for the buildings which were constructed to beautify Rome. The practice of the sale of pardons and Indulgences, and other forms of ecclesiastical revenue proved to be a burden on the treasury of most of the countries in Europe. Intelligent men rebelled

against this outflow of money from their countries to Rome. Moreover, when it was realized by the people that the Church was not able to lead them morally and spiritually, they withdrew all financial aids to the Church. The Reformation, like the Renaissance, spread slowly and gradually and culminated only in the sixteenth century. As early as the thirteenth century, the French king, Philip IV (1288-1314) tried to undermine the importance of the papal authority. He wanted to impose taxes on the clergy and also wanted them to be under the jurisdiction of the Royal Court. Pope Boniface VIII tried to retort by holding out threats of ex-communication but had to give in as the King stopped the outflow of Gold and Silver from France to Rome. Pope Boniface VIII was succeeded by the King's friend who instead of living in Rome, lived in France and made Avignon his headquarters. From 1309-1377, the popes lived at Avignon under French control. The Popes, though humiliated, still led a debauched life. During the year 1378 to 1417, the Church had two Popes - one in Rome and the other at Avignon and there was considerable rivalry between them, historians have called this the Great Schism.

Philosophers—In England, John Wycliffe (1320-1385) denounced the degrading agreement contracted by King John to pay tribute to the Pope. Wycliffe was a Professor at Oxford and had a large following. He deemed the Pope unworthy of being the representative of Christ. Wycliffe considered the state higher than the Church because he was aware of the shortcomings of the Church and the malpractices of the clergy. His followers were called 'Lollards' meaning the poor priests. Some writers have named Wycliffe the Morning Star of the Reformation because he was the first man to openly voice his feelings against the Church. Erasmus, a Dutchman, born in 1469, also criticized the Church through his vitriolic writings. Jestingly, he exposed the ills of the Church in his famous book *In Praise of Folly*. He wanted to reach out to the masses and educate them so that they may become aware of the incapacity of the Church to act as their moral and spiritual mentor. In spite of his criticism, he remained loyal to the Church till the end. He himself admitted that he 'laid the egg' of the Reformation but Luther hatched a bird of quite a different breed. Erasmus considered Luther's pronouncements against the Church as heresy.

Even in Czechoslovakia, in the fifteenth century, John Huss had opposed the Church and criticized the corrupt practices of the clergy. Huss was declared a heretic and was burned. All these factors were responsible for the open attack against the Church, and the people felt that it was essential to reform the Church.

4.6.2 Role of Martin Luther

Martin Luther was born in 1483. Once when walking through a forest with a friend, a sudden streak of lightning struck his friend and killed him. Luther survived, and felt that God had saved his life. This induced him to become a monk, but for a long time he remained unhappy leading the life of a monk. Eventually, he became a Professor in the University of Wittenberg. Luther was brutally frank, both as a teacher and as a monk. He had placed great hopes in the Church but when he came to close contact with it, he realized that the clergy were very corrupt. Disillusioned, he began to propagate ideas which were quite contrary to Roman Church and its theology.

In 1517, a man named Tetzel set out on a tour of Germany to sell Indulgences to raise funds for rebuilding St. Peter's Church in Rome. Tetzel took advantage of the superstitious nature of the people and amassed a lot of money. Luther was disgusted with the idea of selling Indulgences. When he realized that some of his own followers were buying pardons, Luther decided to raise his voice

against this evil practice. He nailed up on the Church door of Wittenberg Ninety-Five Theses condemning the practice of Indulgences. He also challenged the opposing views of the theologians. Through the Medium of the printing press, Luther's ideas spread all over Germany and the neighboring countries. The people in Germany were greatly impressed by Luther who they felt had the courage to protest against what was wrong. Princes, knights, merchants, town folk and peasant supported his movement. Tetzel was mobbed and was forced to give up selling Indulgences. People were so critical of the clergy that in some German towns the Bishop and the clergy were actually afraid of being seen in their clerical dress.

When Pope Leo X found his authority threatened by the teachings of Luther, he issued a Bull or papal edict in which he warned Luther of excommunication. Luther remained undaunted and publicly burned the Bull. Emperor Charles IV, who professed to be a follower of the Roman Catholic Church, ordered Luther to appear before the high dignitaries, in the city of Worms in 1512. Luther faced the trial heroically. He refused to recant saying, "It is neither safe nor right to act against one's conscience." Luther departed from Worms unharmed but before long, there was an imperial order to arrest him and to ban his books. Luther too, would have been burnt alive like Huss, but the Elector of Saxony hid him in the Castle of Wartburg. From the castle, he continued writing pamphlets. The most famous was "*Appeal to the Christian Nobility of the German Nation*" published in 1520. With publication of this pamphlet, Luther's following increased and included people from all the classes in Germany. He translated the Bible into German, believing that people should be able to read the scriptures in their own language. Luther's version of the Bible became very popular. The followers of Luther were called Lutheran or Protestants, because they protested against the teachings of the Church. Instead of recognizing the authority of Pope, they considered the Bible as the word of God. The great religious movement started by Luther, split Europe into two camps - Protestants and Catholics.

Charles V, who became the King of Spain, Archduke of Austria, ruler of the Netherlands and other dependencies was also elected to the sovereignty of the Holy Roman Empire and as a result he wanted to maintain Catholicism in his dominions. He could have suppressed the revolt in the very beginning if he had used all his forces against the Lutherans, but he was busy fighting Francis I of France and the Turks under Suleiman I. Eventually, when the religious war broke out, the Emperor defeated the Protestant princes and imprisoned some of them. For a short while, it appeared that the movement initiated by Luther was finally suppressed. As Charles V became more powerful, the Pope became apprehensive and tried to maintain his supremacy against the Emperor. Meanwhile, the Protestants once again regained power. A struggle ensued and the Emperor was captured by the Protestants and made to abandon the struggle. In 1555, he signed the Peace of Augsburg. This agreement gave liberty to every prince and every free city in Germany to follow either religion, Catholicism or Protestantism. The subjects had to follow the religion prescribed by the ruler. This agreement gave religious liberty to the states but curbed the freedom of the individual. Lutherism came to be formally recognized with the Peace of Augsburg. The northern states of Germany were mostly Protestant while the southern states remained Catholic. Lutherism was successful in Norway and Sweden as the King himself, was a staunch follower of the movement.

4.6.3 The Reformation in Other European Countries

In Switzerland, the revolt against the Catholic Church was led by Zwingli whose doctrines differed somewhat from those of Martin Luther. Zwingli made Zurich the headquarters of his movement.

Zwingli linked religion with politics and fought against the Catholic neighbors. In the battle of Keppel in 1531, Zurich was defeated and Zwingli was killed. The Centre of the Protestant movement in Switzerland was then shifted from Zurich to Geneva.

Another great Protestant leader was John V Calvin (1509-1564). He was a French lawyer who came to Switzerland so as to escape persecution on the charges of heresy in his native country. From Geneva, he preached Protestantism and it spread quickly to Holland, Scandinavia, England, Scotland and France. The Protestants in France were called Huguenots.

John Knox, who was a disciple of Calvin, converted more than half the population of Scotland to Calvinism. This form of Protestantism established by Calvin was called 'Presbyterianism' as the Church was supposed to be managed by the Presbyters or Elders. In 1560, Knox issued the confession of faith which established the sovereign authority of the Presbyterian Church of Scotland in all matters.

In England Henry VIII ascended the throne, being young, 'he was proud of his comprehension of theological issues and he even wrote a tract against Luther. The Pope was so happy with him that he bestowed on him the title Defender of the Faith. Very soon however, there was a clash between Henry VIII and the Church over a personal issue. Henry VIII married Catherine of Aragon, the widow of his deceased elder brother. Though the Church did not approve of marrying one's brother's widow, the Pope granted a dispensation and upheld the marriage. Catherine could not give the King an heir to the throne, so Henry wanted to get rid of her and marry the beautiful Anne Boleyn. Only the Pope could grant him divorce. Henry tried to obtain a divorce on the grounds that his marriage to Catherine was illegal. The Pope could not please Henry VIII by granting the divorce for fear of annoying Charles V, who was Catherine's Nephew. The Pope decided to play it safe and tried to delay the question of divorce for years so as not to displease either king. Henry VIII decided strip the pope of his authority and the Act of Supremacy 1534 made the King the Supreme head of the England Church. This move of his was backed by the support of the people who resented the corrupt practices and laxity of the monks. Henry distributed lands belonging to the Church among those people who had faithfully served the Tudor dynasty. The English Reformation was mainly political and the religion which the English King prescribed to his subjects was not much different from Roman Catholicism. The powers of the Pope were now in the hands of the sovereign. After Henry VIII, there were considerable shifts in the official policy of England, but it was stabilized under Elizabeth who firmly established the Anglican system.

4.6.4 Counter Reformation

With the spread of Protestantism, the hold of the papal authority weakened. The Catholic Church in an attempt to reform itself, decided to remove the causes which led to its decadence. A council was held at Trent in the Tyrol to decide on the measure to be adopted to strengthen the Church. At this Council, the clergy clarified the doctrines of Christianity, introduced reforms and compiled a list of books which the Catholics were not supposed to read. The practice of sale of Indulgences and simony were also condemned. Men worthy of holding high offices were given ecclesiastical posts after intensive screening. This self reform on the part of the Catholic Church is known as the Counter Reformation

To check the further growth of Protestantism, a new religious order, called the Society of Jesus was established in 1534 by Ignatius Loyola, a Spanish soldier, who was wounded in the war and who during his stay in hospital, made up his mind to devote the rest of his life in the service of God. The Jesuits gave a great impetus to the Counter Reformation. The Jesuits took the vows that the

monks had taken earlier but they did not renounce the world to shut themselves up in the monasteries. Instead, they engaged themselves in constructive activities and travelled all over Europe as teachers and missionaries. They struggled hard to win converts to the Catholic Church even in the countries which had a majority of Protestants. Their sincerity of purpose and their perseverance brought them success. They were able to revive Catholicism in Poland and in some parts of Germany, Belgium, Czechoslovakia and Hungary and introduced it in China, India and America. The Roman Catholic Church revived and slowly gained ground. Another reason for the arrest of the Reformation was the dissensions among the Protestants. Martin Luther considered Zwingli, a heretic and Calvin doubted all the non-Calvinists. People were confused because of conflicting doctrines.

Moreover, the Pope established an ecclesiastical court called the Holy Office or the Inquisition which was supposed to try the heretics and punish them. Any one guilty of heresy was burnt alive. The Inquisition spread a wave of terror in Spain and Italy; people once again chose to confine their doubts to themselves, rather than to pronounce them for fear of being branded as heretics.

4.6.5 The Effects of Reformation

The Reformation movement induced numerous people to claim freedom of thought in spiritual matters. This awakening brought about a revolt against the established Church which lost its age long hold on the lives of the people. The Reformation forced the Church to reform itself in what is termed as the Counter Reformation. With the advent of the Reformation, Christianity was liberalized and it became more rational. Catholic missionaries worked hard to purge the Church of its evils.

With the Reformation, the European world was divided into two religious groups—Catholics and Protestants. Though it heralded the beginning of the modern age, yet the spirit of tolerance was still unknown, millions of people suffered because of their religion. In reality, the Reformation and the Counter Reformation ushered in a period of religious persecutions and religious wars. Protestants were persecuted by Philip II in Spain and by Bloody Mary in England. Catholic subjects were punished by their Protestant rulers in Germany. The Thirty Years War between Catholics and Protestants in Germany caused much bloodshed and havoc. Intolerance became the by-product of the Reformation. With the onset of the Reformation, monarchy acquired more power as compared to the Church. Henry VII under the pretext of the Reformation deprived the Pope of his powers. The German princes were freed from the papal hold and other European kings built their monarchies without interference from the Church. Reformation gave a great momentum to the spirit of nationalism, which had recently germinated in Europe.

Liberated from the clutches of the orthodox Church, people felt free to pursue economic and creative activities. The tyranny of the Church came to an end and the Reformation brought about drastic changes in many fields.

4.7 Absolutism and Emergence of the Nation State :

During the Middle age, Europe was divided into several small political units. The people living in these units attached great importance to religious feelings and regional interests. During the sixteenth century in place of small units there arose the nation - states among which England, France, Spain, Portugal and Sweden etc. were the strongest. These states developed national language and literature as well as new awakening. The rise of nation states nationalized national boundaries on historical basis. A new type of political state began to gain importance by the beginning of the sixteenth century.

It was different from such empires like Ottoman Empire as well as from the small city states like Venice, Florence or Genoa. Such a state did not exist in the early times and gradually and imperceptibly developed during the middle ages. It was a small size state which eventually became the basis of and an essential component of the modern state system. New national monarchies were taking shape in England, France, Portugal, Spain, Denmark, Sweden, Hungary, Norway, Poland and Lithuania. Each one of these states possessed basically one nationality with its own language and literature and self awakening and as such, was described as National States or Monarchies. By the year fifteen hundred these so called national states had firmly established themselves and were fast moving towards monarchical absolutism which was a feature of these states. The political institutions were accordingly undergoing changes which were moving towards absolute governments controlled by the rulers. For one must remember that in 1500, it was the ruler who was the object of veneration and not the state. Treason to the King was a dastardly crime which would brook no excuses, for the Kings were developing a divine halo.

Responsible factors which led to the emergence of Absolutism, in sixteenth century - The significant factors responsible for the growth of new absolute monarchies were the crusade, the rise of middle class, the fall of feudalism, the rise of nationalism and spirit of patriotism of the church, Progress in the field of warfare and geographical discoveries.

4.7.1 The Responsible factors of the Emergence of the Nation States

(A) Crusade—The Holy wars between the Christians and Muslims brought the Western world in contact with oriental ideas of government. Further the Crusades promoted trade and commerce which in turn led to prosperity of the middle class which now looked up to the strong rulers to give them protection for travel and trade against the fighting nobles. The Crusades also helped to divert the attention of feudal Lord's and churchmen from the domestic politics to more profitable and lucrative - enterprises abroad which gave the much needed respite to the rulers. These very nobles and churchmen had been responsible for the establishment of constitutional government and restricting the authority of the monarchy. Some among these were killed during the Crusades while others migrated to the Near East or settled in cities and were profitably engaged in commerce. They like others, desired a strong and stable government. Feudalism was on the decline and the feudal lords could not challenge or oppose royal absolutism.

(B) Role of the Church—The Church which had been opposed to royal absolutism during the Middle Ages was no longer in a mood to continue its opposition and was gradually moving towards toleration and resignation and even aid. Though the church was hostile to royal absolutism it was in no way in favor of the confusion and chaos which had been perpetrated by the feudal society and now willingly extended its support to the middle class and supported the attempts of Kings to put down private warfare and dominate feudalism. In this way the Church contributed to the growth of Royal power. When the King turned against the church and sought to enrich them at expense of the Pope, the Church could not withstand the onslaught as it had been weakened by, the Crusades, the abuse within the Church and popular criticism and opposition, so it readily gave in to what the Kings did, and ultimately many Churchmen became ardent supporters of royal power and authority - in short royal absolutism.

(C) Growth of the Middle Class—

The growth of the middle class and its association with the king was the outstanding feature. The kings looked after its interests and in turn the middle class served and even worshipped the king.

The middle class provided the kings men and money and in return the kings showered special favors in so far as commercial monopolies and other financial benefits were concerned. In course of time the kings became the real head of a big national business in which the middle class was an important share-holder. The kings were no longer the nominal and titular heads.

(D) Invention of Gun Powder and Changes in the Method of Warfare— These contributed to the decline of feudal power. The King was able to maintain a large standing army and equip it effectively and this could be used to suppress feudal lords and people revolt in his kingdom. The Kings thus came to have an effective instatement of royal absolutism.

(E) Political Writings of the Contemporary Scholars—National Monarchy received impetus and support from the writing of the Machiavelli in the sixteenth century. In his famous book -The Prince - Machiavelli asserted that national monarchy was preferable to any other form of government, that the power of the King should be absolute and unlimited by religious or moral considerations. Further a Prince in order to promote the interest his State and Kingdom can have recourse to stratagem including deception, bribery and even assassination. Despite its criticism by the Pope and the Church Machiavelli 'Prince' was widely read, with his advice duly needed and acted upon by the ambitious rulers of the sixteenth century. In fact Machiavelli had taken the stand, the success justifies the means and that anything that works well is right.

4.7.2 Absolutism in European Countries

France: - On the continent, the National monarchy was well established politically and territorially. Political institutions which were centralized had taken firm root. The King was the source of law, order and justice. The Estates General (The French Parliament) had no final say in the levying taxes or sanctioning expenditures. What was worse, was that unlike England, there was in France no tradition of people's participation in government and no written guarantee of personal liberty .

Nationalism was slow but gradual in taking roots in France. As early as the middle of the 13th century a centralized government had existed but it was only towards the end of the 16th Century that France emerged as a Great Power. The country was fortunate to have good kings assisted by Excellent Minister.

Credit for establishing the supremacy of France must undoubtedly fo to Henry IV (1589-1610) and Sully, his Chief Minister, followed by Richelieu (1624-1642) who as the Minister of Louis XfII for eighteen years did eoman's service to his country and the king. He spotted the religious problem, put down the unruly nobles and completed the centralization of the administration. As a consequence the old feudal practices were suppressed. Unfortunately for France both Richelieu and Louis XIII died the same year and the next successor was Louis XIV (1643-1715) a boy of five years of age. The affairs during this period were only managed by his Minister Mazarin who died in 1661. In fact he carried on the work that Richelieu had begun. When Mazarin died, Louis XIV assumed control of the government himself. Louis XIV, though a well meaning ruler who spent long hours in personally supervising the details of the government, unfortunately left the government in a state of virtual bank ruptcy because of the numerous wars he allowed France to be drawn into. Before he died he advised his successor Lous XI (1715-1774) in the following words "My Child", you will soon be sovereign of a great kingdom. Do not forget your obligations to God; remember that it is to Him that you are. Endeavour to live in peace with your neighbors, do not imitate me in myfondness for war, nor in the exorbitant expenditure which I have incurred. Take counsel in all your actions. Endeavour to relieve

the people at the earliest possible moment, and thus to accomplish what, unfortunately I am unable to do myself. It was an advice which Louis XV could have usefully employed but being an unworthy successor, feeble and frivolous, he did not pay heed to and prophesized that an insurgence will erupt after his death. How right he proved! Absolutism which had a magnified beginning, fell into discredit. Under such desperate conditions, Louis XVI ascended the throne. He lacked in leadership. He neither had the potentiality of taking decision nor did he listen to the advice of others. He was least interested in the problems of his country. Like all the Bourbon Kings, Louis XVI remained under the thumb of his wife Mary Antoinette.

Louis XVI (1774-93) used to say—"A thing is legal because I want it". There was no representative council or parliament to curb the unqualified powers of the King. The only institution to restrict the waywardness of the King in France was the Parliament, the prime job so which was to register the order of the King as Laws. It could refuse registration of an order passed by the King. It had refused to register irrational laws during the early years of the revolution.

England—The two earlier nation-states in Europe were England and France. The Hundred Years War (1337-1453) between them promoted nationalism in the two countries but the victory of France proved detrimental to England. The defeat of the British King reduced his power. The 30 Years War (1455-1485) between the Lancaster and the York came to an end in 1485 and Henry VII ascended the throne. He tried to establish a powerful monarchy and took several steps to control the feudal lords and noble. He seized their estates and thereby reducing considerably the influence of the nobility. They were prohibited from keeping their private armies. The Star Chamber Court was re-established to control the arbitrary behavior of the feudal lords. He took economic measures to enhance the national income and improved trade. He raised money and was not dependent on parliamentary grants. In fact, parliament met only five times during his reign and only once during the last twelve years and all its decisions were subservient to the Royal desire. England in 1500 was a real national monarchy and in course of time the king became the supreme authority and parliament was purely a formal body, summoned only to reduce the influence of feudal lords and nobles. He patronized the middle class. Finally, he established friendly relations with Spain and Scotland etc. through matrimonial alliances. As a result of all these measures he established a powerful monarchy in England.

Henry VII the first king of the Tudor Dynasty became ruler in 1485 after the War of Roses and ushered in a new period in English History. Henry VII sought to establish what has been called a strong monarchy. The war of Roses considerably aided him in achieving his objective. Firstly, the struggle being a fight between two groups of nobles resulted in the destruction of many noble families and enabled Henry VII to seize their estates, and thereby reducing considerably the influence of the nobility. Secondly, the struggle being long and disorderly, created in the minds of the common people a desire for a strong government which could effectively establish peace and order in the kingdom. Henry VII took advantage of these conditions and established an absolute rule which lasted throughout the sixteenth century and in fact lasted till the Glorious Revolution of 1688. Henry VII put down disorder with a heavy hand. He raised money and was not dependent on parliamentary grants. In fact, Parliament met only five times during his reign and only once during the last twelve years and all its decisions were subservient to the Royal desire. England in 1500 was a real national monarchy and in course of time the king became the supreme authority and Parliament was purely a formal and perfunctory body, summoned only at the pleasure of the King.

Portugal and Spain—In South Western Europe, beyond the Pyrenees were the two national monarchies of Portugal and Spain. Portugal the smaller of the two states had become a national state by the year 1500 mainly due to the efforts of its able Kings and foreign explorations and discoveries. It was also an absolute state, keeping in tune with the spirit of the age. The Portuguese parliament - the Cortes which had played an important part in early times, failed to meet after 1521. The Spanish Monarchy received great impetus during the reign of Ferdinand and Isabella. While in principle both Ferdinand and Isabella interfered little with the representative form of government, they quietly worked towards an absolute administration, with the help of the middle class and stripped the nobles of their political power and enlisted the support of the church. The Cortes was no doubt convened regularly but its functions were gradually transferred to Royal Commissions and the state officers and the king and queen were able to raise Spain's standing, in the community of Nations, in the sixteenth century.

Denmark and Swden—In North Western Europe there were two kingdoms in 1500 - Denmark and Sweden who labored with success to dominate the church, to extend their territories and to curb the power of the parliaments and the influence of the Nobility. In the Scandinavian Peninsula, like England and France, absolutism was taking firm roots.

The rise of nation states had both positive and negative results. The chief among the positive result are the end of the chaotic feudal order and serfdom, encouragement to the search for new and improved methods a production, and expansion in production, reform in the methods of exchange and encouragement to geographical explorations etc. The stable and powerful central authority provided protection to traders and businessmen inside the country as well as secured them from external competition. Henry VII banned the import of several goods to protect home industries. Another outcome of the rise of nation-states was that the boundaries of nations became more rational and scientific. The nation now became an organization of people who were moved by similar economic interests and followed similar cultural traditions .

There were some negative results also. Very often nationalism was used as a tool against other nations - first in the form of business rivalry and then in the race for imperial expansion. There was little control on the rights of the ruler. In the beginning the autocracy of the kings was not opposed but when they became despotic there arose protest movements against absolute monarchies. The ensuing age belonged to the national consciousness and the rights of the people.

Unfortunately, the rise of national states could not establish peace in Europe. National rulers fought wars in order to end feudal struggle. But after the feudal wars, there started national wars and the wars of succession.

4.8 Capitalist Economy :

Capitalism is defined as an economic system characterized by private or corporate ownership of capital goods; by investments that are determined by private decision; and by prices, production, and the distribution of goods that are determined mainly by competition in a free market.

Capitalism is a social system which now exists in the, most countries of the world. Under this system, the means for producing and distributing goods (the land, factories, technology, transport system etc.) are owned by a small minority of people. We refer to this group of people as the capitalist classes the majority of people must sell their ability to work in return for a wage or a salary (who we refer to as the working class).

Adam Smith is often referred to as the 'Father of Capitalism'. He described a system in which an 'invisible hand' would maintain the market without government intervention. The government exists merely to protect individual rights, which according to Smith also include the establishment of an "army to protect against foreign invader; a police force to protect against domestic criminals; and a court system to settle disputes that arise, enforce contracts, and punish criminal according to objectively predefined laws."

4.8.1 History of Capitalism

Although some feature of Capitalist organization existed in the ancient world (e.g. the early Roman Empire, the medieval Caliphate in Middle East), Capitalist economic practices became institutionalized in England between the 16th and 19th Centuries, and then spread throughout Europe and across political and cultural frontiers.

- 1 With the emergence of the modern nation-states in the 16th and 18th Centuries, mercantilism (economic theory that the prosperity of a nation depends upon its capital, or economic assets, as represented by gold and silver, and that the volume of world economy and international trade is unchangeable, encouraging a protectionist role for government) became dominant in Europe.
- 1 The classical tradition in Capitalist economic thought emerged in Britain in the late 18th Century, with Adam Smith, David Ricardo (1772-1823) and John Stuart Mill, as well as with Jean-Baptiste Say (1767-1832) in France. Important contributions to the theory of property are found in the earlier work of John Locke, who had argued that the right to private is a natural right.
- 1 Adam Smith's criticism of the mercantile system in his "*The Wealth of Nation*" of 1776 is often considered the beginning of classical political economy. Adam Smith devised a set of concepts that remain strongly associated with Capitalism today, particularly his theory of the 'invisible hand' of the market, through which the pursuit of individual self-interest intentionally produces a collective good for society. He criticized monopolies, tariff, duties and other state-enforce restriction of his time, and he believed that the market is the most fair and efficient arbitrator or resources.
- 1 David Ricardo, one of the most influential economists of modern times, developed the law of comparative advantage (which explains how trade can benefit all parties involved as long as they produce goods with different relative costs) in the '*The Principle of Political Economy and Taxation*' of 1817, which supports the economic case for free trade, is a cornerstone of capitalist thinking. He also argued that inflation is closely related to change in quantity of money and credit, expanded on Say's Law of full employment in a competitive economy, and described the law of diminishing returns (which states that each additional unit of input yields less and less additional output), all essential building blocks in the theory of Capitalism.

In the wake of industrialization, the repeal of restrictive laws, and the teachings of Smith and Ricardo, the doctrine that government should not interfere in commercial affairs, laissez-faire Capitalism gained favor over mercantilism in Britain in the mid-19th Century, and it embraced Liberalism, competition and the development of a market economy, from where it rapidly spread throughout much of the western world.

In the late 19th Century, the control and direction of large area of industry came into lands of financiers, and the processes of production became subordinated to the accumulation of money profits

in a financial system (sometimes known as 'Finance Capitalism'). Late 19th and early 20th Century Capitalism was marked by the concentration of capital into large monopolistic or oligopolistic holdings by banks and financiers, and by the growth of large corporations.

During the late 19th and early 20th Century, Capitalism set itself in opposition to the rising tide of Socialist, Marxist and Communist thought, and to the whole concept of centrally-planned economies. But by the 19th Century economic depressions and 'boom and bust' business cycles had become a recurring problem. In particular, the Long Depression of the 1870s and 1880s and the Great Depression of the 1930s affected almost the entire capitalist world. In response, the state began to play an increasingly prominent role in the capitalistic system throughout much of the world, exemplified by the New Deal of American President Franklin D. Roosevelt (1882-1945). Mixed economies (containing both privately-owned and state-owned enterprise, and with a mix of market economy and planned economy characteristics) and the interventionist Keynesian economics of British economist John Maynard Keynes (1883-1946) became the norm.

After the long post-war boom, during which the Keynesian 'State Capitalism' was in the ascendant, new push towards laissez-faire Capitalism and classical Liberalism was led by the economists Friedrich Hayek (1899-1992) and Milton Friedman (1912-2006), and championed by conservative leaders like Ronald Reagan and Margaret Thatcher in the 1970's.

4.9 Secularism :

Secularism is a belief system that rejects religion in the belief that religion should not be part of the affairs of the state or a part of public education. In other words it is the principle of separation of Church and state and of keeping religion out of the public school system. One manifestation of Secularism is asserting the right to be free from religious rule and teachings, in a state declared to be neutral on matter of belief, and free from the imposition, by government, of religion or religious practices upon its people. Another manifestation of Secularism is the view that public activities and decision, especially, political ones, should be uninfluenced by religious beliefs and/or practices.

Secularism draws its intellectual roots from Greek and Roman philosophers such as Epicurus and Marcus Aurelius; from Enlightenment thinkers such as John Locke, Denis Diderot, Voltaire, Baruch Spinoza, James Madison, Thomas Jefferson, and Thomas Paine; and from more recent freethinkers and atheists such as Robert Ingersoll and Bertrand Russell.

In Europe, it has been argued that Secularism is a movement toward modernization, and away from traditional religious values (also known as Secularization). This type of secularism, on a social or philosophical level, has often occurred while maintaining an official state church or other state support of religion. In the United States some argue that state secularism has served to a greater extent to protect religion and the religious practices from governmental interference, while secularism on a social level is less prevalent. Within countries as well, differing political movements support secularism for varying reasons.

G.J. Holyoake Invented the term 'secularism' to describe his views of promoting a social order separate from religion, without actively dismissing or criticizing religious belief. An agnostic himself Holyoake argued that "Secularism is not an argument against Christianity; it is independent of it? Secularism does not say there is no light or guidance elsewhere, but maintains that there is light and guidance in secular truth, whose conditions and sanctions exist independently, and act forever. Secular

knowledge is manifestly that kind of knowledge which is found in this life, which is founded in this life, which relates to the conduct of this life, conduces to the welfare of this life, and is capable of being tested by the experience of this life .

Barry Kosmin of the institute for the study of secularism into society and culture breaks modern secularism into two types; hard and soft secularism. According to Kosmin, "The hard secularist considers religious propositions to be epistemologically illegitimate, warranted by neither reason nor experience." However, in the view of soft secularism, "The attainment of absolute truth was impossible and therefore skepticism and tolerance should be the principle and overriding values in the discussion of science and religions." In political terms, secularism is a movement towards the separation of religion and government (often termed the separation of church and state). This can refer to reducing ties between a government and a state religion, replacing laws based on scripture (such as Halakha and Sharia Law) with civil laws, and eliminating discrimination on the basis of religion. This is said to add to democracy by protecting the rights of religious minorities.

4.10 Post-Industrial Society :

A post-industrial society is the name for a society that has emerged after industrialization has been established. It is the stage of society's development when the service sector generates more wealth than the manufacturing sector of the Economy.

A post-industrial economy focuses more on the service sector than on manufacturing and industry. One of the significant features of a post-industrial economy is the transition to an information age, where information is a valuable raw material, able to be traded as a commodity. The concept was popularized by Daniel Bell, and is closely related to similar sociological theoretical constructs such as post-fordism, information society, knowledge economy, post-industrial economy, liquid modernity and network society.

As the term has been used, a few common themes, including the ones below have begun to emerge: -

1. The economy undergoes a transition from the production of goods to provision of services.
2. Knowledge becomes a valued form of capital, see human capital ..
3. Producing ideas is the main way to grow the economy
4. Through processes of globalization and automation, the value and importance to the economy of blue-collar, unionized work, including manual labor (e.g. assembly-line work) decline, and those of professional workers (e.g. scientists, creative-industry professionals, and IT professionals) grow in value and prevalence.
5. Behavioral and information science and technologies are developed and implemented.(e.g. behavioral economics, information architecture, cybernetics, Game theory and information theory)

Daniel Bell popularized the term through his 1974 work "the Coming of Post-Industrial Society." Although some have credited Bell with coining the term, French sociologist Alain Touraine published in 1969 the first major work on the Post-Industrial society. The term was also used extensively by social philosopher Ivan Illich in his 1973 paper "Tools for Conviviality", and appears occasionally in Leftist Texts throughout the mid-to-late 1960s.

The term has grown and changed as it became main-stream. The term is now used by admen such as Seth Godin, public policy Ph-D's such as Keith Boeckelman, and sociologists such as Neil

Flistein and Ofer Sharone. President Bill Clinton even used the term to describe Chinese growth in round-table discussion in Shanghai in 1998.

4.10.1 Essential Characteristics and Impact of Post-Industrial Society

The Post-industrial society is largely due to the shift in the kinds of work and the processing of information technology. There is much emphasis on information processing and therefore, sometimes the emerging post-industrial society is also called 'information society'.

The characteristics of the post-industrial society can be seen in many fields. Firstly, in the post-industrialism, the worker do not work upon things; they work with other people to deliver a service. This provides a more rewarding and interesting form of work. Secondly, the post-industrialism creates a new professional class in place of labor class. Thirdly, the emphasis in post-industrial society is on knowledge as the source of societal change. The knowledge, that is information processing, comes from the new technical elites in the universities, government institutions and economic enterprises. Fourthly, in the post-industrial society there are combined advance in communication technologies, systems of management and technologies of production. These networks enable firms to develop products jointly or to serve specific markets and thus represent a different economic strategy from the establishment of multinational empire. Lastly, it can be said that, the source of knowledge-information and technology became a field of control by the government, universities and multi-national corporations. Technology, by the process of collaboration, brought different business organization within a fold. The end-result of these processes created a sharp division in the society.

4.11 Summary :

The dawn of the new epoch spread the message of freedom of expression. The narrow perspectives of medieval life style were rejected. It is true that curiosity; awakening and struggle were exceptions rather than rules. Fresh breeze brought nothing new but fanned exception. Man became the centre of the society. In order to make life fascinating, comfortable and delightful people started exploring the secrets of beauty and truth rather than those of the Heaven. Exploring the secrets of man is called Renaissance or the rebirth. The spirit of enquiry led people to challenge the authority of the church and the sense of curiosity led them to inventions and discoveries. A humanistic approach emerged. The works of Dante, Petrarch, Thomas More, Machiavelli, William Shakespeare etc. are specimens of Renaissance literature. The Renaissance spirit made the people protest against the corrupt practices of church. New Scientific inventions and discoveries destroyed faith in the supernatural. With the decline of feudalism and increase in trade and commerce, nation states were formed. The establishment of nation states strengthened the position and power of the king. The Reformation had already weakened the influence of the Church over the state. In European countries, a movement towards modernization and away from traditional religious values secularism and humanism emerged which paved the way of secular society, secular ethics and thinking of man. There are ideological and political divisions such as capitalism, socialism and others came forward among the world. The economy and society have undergone tremendous transformation. Thus the modern world which begins from Renaissance is continuing with ups and downs till today.

4.12. Questions for Exercise :

1. Give detail information about the ups and downs in the Modern World History.
2. What do you mean by Renaissance? Throw light on the various causes of Renaissance.

3. Why did Renaissance begin in Italy only?
4. How did Renaissance influence the Literary and Art of the Modern Society?
5. Write an Essay on the impact of Renaissance.
6. What do you mean by scientific revolution? How the scientific exploration did change the medieval views of the people.
7. The intellectual revolution establishes human prestige, human rights and human ideals. Explain.
8. What do you mean by Reformation? Analys the causes of the Reformation.
9. Examine the important Role of Martin Luther during Reformation.
10. Throw light on the effect of Reformation.
11. What do you mean by Absolutism? Write briefly about the absolutism in European countries.
12. What were the important factors of Emergence of Nation States in European countries?
13. What do you mean by Capitalism?
14. Write down the notes on Secularism.

4.13. Suggested Readings :

- | | |
|-----------------------|--|
| 1. Jain and Mathur | : History of Europe |
| 2. Dr. R.S. Chaurasia | : History of Europe |
| 3. Rodney Hilton | : Marxism and the Transition from Feudalism to Capitalism. |
| 4. Richard Lodge | : A History of Modern Europe |
| 5. B.Y. Rao | : History of the Modern World. |
| 6. Norman Lowe | : Mastering Modern World History |

L L L