Etymologically, the word **'Sociology'** is derived from the Latin word **"socius"** and Greek word **'logos'**. **'Socio'** means **'relating to society'** and **' logos'** means 'science' or 'word about' This means that **'Sociology is the study of society in a scientific way'.**

Meaning of sociology:

'Sociology' is the science of society'.   -Webster

'Sociology is the science of social relation   -Small

In the broadest sense, " Sociology is the study of human interactions and interrelation, conditions and consequences'   -Morris Ginsberg

"Sociology is the scientific study of social groups"   - Harry M. Johnson

"Sociology is the scientific study of social life"   - Max Weber

Sociology is the basis of education. It is **Emile Durkheim** who gave concept of relating education and sociology. He says that society is an essential factor in the development and progress of education. Sociology and education are mutually interrelated and interdependent as that of philosophy and psychology to education.

Points to justify sociology as a base of education:

- Education in the social concept is socialization and sociologically education is the process of socialization.
- Education is a powerful source of social control and knowledge of social control is essential to education.
- Education is an instrument of social change and concept of social change necessary to education.
- The function of education is the all-round development of personality This development is possible only in social contacts.
- Sociology is the study of social system and education is the function of social system.
- Sociology develops laws and principles and education adopts these to bring desirable attitudes in the individual in relation to society.

1.4 General Aims of Education:Individual and social

Aims are very important in any organization or system. Aims help us to act with meaning and they direct the activity. They are necessary to assess the outcomes of any activity or process. Education is a process of modifying the behavior of an individual. It is a process which helps in the all-round development of the personality of the individual. Hence aims are very important in education system. The process of education is meaningless without considering the purpose of it. Without aims, education is of no use. Efforts have been made by different philosophers and thinkers to give a comprehensive aim to education. The philosophical, psychological and sociological ideas of different ages have guided in determining the aims of education. The main aim of education in ancient India was attaining **'MOKSHA'**. Preparing the self-less and self-reliant individuals was the aim of education. According to Adi **Shankaracharya** the aim of education was the realization of self.

Manu emphasized the intellectual and spiritual development as the aim of education. To, Plato, it was to develop the greatest powers of the individual. During Buddhist period,

education aimed at achieving 'Moksha 'and to prepare selfless individuals. The aim was to prepare individuals for simple life developing in them the values like, truth, sympathy etc. During medieval India, Education aimed at developing individuals on the basis of Dharma. It was also aimed at preparing individuals for vocation. After independence, more concentration is given to the all-round development of the individual. The other aims are, preparing youths for job, to develop science and technology, to bring national and international understanding. The aims of education are either individual or social.

Individual Amis:

Individual aims are those which enable the individual to acquire health, knowledge, character and prepare for jobs.

Health:

Health is very much important to everyone. It is rightly said, "Health is Wealth". Health is very important for a happy living. An unhealthy man cannot be happy. He is always sad and passive. He does not have any peace of mind. Hence he can be neither progressive no creative. Health is one of the precious possessions we have. We should learn to maintain it. Health does not mean only the state of being free from illness or injury. It is the general condition of the body and mind with reference to soundness and vigor. **WHO** defines health as a **'state of complete physical, mental and social well being and not merely the absence of disease'** Health refers to the physical, mental, social and moral fitness of an individual. Education should aim at developing the individual keeping in mind, all these. It should aim at creating a sound mind in a sound body. The programmes and learning activities of education should be planned in such way that an individual who gets education becomes physically strong, mentally sound, socially adjustable and morally good.

The ancient Indian and Greek thinkers have given much importance to health. **Swami Vivekananda** while speaking about education said,

What our country wants is 'muscles of iron and nerves of steel, gigantic will which nothing can resist'. **Aristotle** meant education as 'the creation of sound mind in a sound body'. **James** is of the opinion that sound physical health leads to develop some good characters in the individual. Education should provide all sorts of opportunities for an individual to grow physically fit. Physical fitness leads to the development of mental and social health. It also develops such qualities as discipline, co-operation, leadership qualities, courage, patience etc. As sense organs are the gateways of knowledge; care is to be taken to keep them healthy. **Montessori** of Italy said that poor sense organs lead to the problems of slow learners in their education. She scientifically proved that slow learning is due to poor sense organs. So, she stressed that education should aim at training the sense organs. She emphasizes physical health and its development as the sole aim of education.

The modern education aim at all round development of an individual. Health is the basic one through which all other faculties develop. If an individual is healthy, then only he can enjoy anything and everything in life. If a highly intellectual individual though earns lot of money, name and fame, cannot enjoy those without good health. Hence the prime aim of education should be

at making individual physically, mentally, socially and morally fit. The curriculum of schools must include such programmes like Yoga, Pranayama, Suryanamskara and other exercises to make the child to develop physically strong and mentally sound. Along with these subjects health hygiene , health education and physical education should be introduced so that the learner can understand the importance of health. Today life has become too busy and complex. Every individual is under stress and tension. Keeping this in mind, individuals are to be educated, and education should aim at creating healthy individuals. It should be the first priority. Along with this, subjects like health education and health hygiene should be introduced so that all individuals will come to know about personal hygiene, health problems and common diseases. Hence it is the primary aim of education to help in the development of physical health of individual which leads to mental health.

Knowledge

Many of the philosophers and thinkers very strongly advocate that the aim of education should be acquisition of knowledge. It is knowledge which helps an individual to develop in all walks of life. Knowledge has its unique importance since ancient times. A Sanskrit saying goes like this,

"Nahi Gnanena Sadrusham

 Pavtramiha Vidyate"

This means that there is nothing which is equal to knowledge and Knowledge is sacred one. The ancient Indian philosophers and thinkers have expressed that knowledge is a universal power. **Socrates**, Greek philosopher also said, knowledge is power by which things are done. Knowledge is a powerful agent for intellectual satisfaction.

Knowledge is what we perceive to be real and true".

<div align="right">

- The Blackwell dictionary of sociology.

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Knowledge is information and skills gained through Experience or education

<div align="right">

-Oxford Dictionary

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"True knowledge consists in possessing idea of universal validity'. Acquisition of knowledge is not only collection of information. A merely well informed person is the most useful born on God's earth, says **whitehead.** Education should aim at such knowledge by which it meets out the problems and challenges of life. It should aim at acquiring such ideas and information by which the individual succeeds in his challenges and find solutions to problems in life situations. Education should aim at such knowledge by which both development and character is formed. **Herbert** says, character and personality is also developed through the implanting of ideals. Acquisition of knowledge is not an end in itself. It should be means to other ends. Knowledge as an aim of education should have following merits.

- It should enable the individual to develop his personality.
- It should help in the development of society finding solutions to social problems.
- It should enrich the intellectual powers of the individual
- Knowledge should be a virtue.
- Knowledge should become an asset, a valuable asset which promotes human welfare.

- Knowledge should bring unity in diversity.
- Knowledge should help the men to develop the scientific bent of mind.
- Acquired Knowledge should not be misused. It should be useful for both individual and society and the whole universe and helps in the world peace of human community.

Character:

Character formation is universally accepted aim of education. Good character is the sign of an educated man. Character is any distinctive mark or moral quality. It is the quality that makes a person different from others. Character means persons of good reputations. The development of character means growth of worthy sentiments, developing fellow feelings, manners, noble ideas, truth and non-violence. Character is concerned with the whole conduct of man. Education should aim at developing good character in the individual. Character is very important in human life. To be human, man must develop good moral character. The following saying emphasizes the importance of characters.

<div align="center">

If wealth is lost, nothing is lost,

If health is lost, something is lost;

But, if character is lost everything is lost.

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It is rightly said, that character is the crown of life. Characterless person is a living dead.

The aim of education should not only to maintain health and acquire knowledge, but to prepare individuals of good character. Knowledge without good character is useless.

A person with knowledge and good character can only be creative and progressive. Ancient Indians gave first priority to character as the aim of education. During Vedic period, individuals were educated with a main purpose of developing ideas like morality, obedience, discipline, trustworthiness, selflessness etc. All most all Indian philosophers and Greek thinkers emphasize the aim of character formation. Swami Vivekananda said 'It is man making and character making education that we want'.

Reymont is of the opinion that the "teacher's ultimate concern is to cultivate not wealth of mus cles, not fullness of knowledge nor refinement of feeling but strength and purity of character". Herbert said, "The whole concept of problem of education may be comprised in a single concept called morality".

Another saying of swami Vivekananda is to be quoted here.

"If you have assimilated five ideas and made them your life, you have more education than a man who has got by-heart a whole library."

The encyclopedia of educational Research speaks about character education thus,

"Character education is a process not only of developing the individual in his personal ideals and conduct but also educating him to develop and applying his personal virtues in the participation of issues and services"

As character building is the need of the hour, education should aim of cultivating certain human values and positive attitudes and good habits which constitute persons of good moral

character. Persons with good character can only rise above and can develop broad minded attitudes and selflessness nature which help in the peaceful and progressive development of the nation and the mankind.

Vocation:

The basic needs of man are food, clothing, and shelter. Education should fulfill these needs. This aim is important to make individuals creative and productive and self-dependent. Modern education aims at preparing youths for vocation so that they can lead their own life, not becoming burden to their parents and society. Gandhi proposed two main aims of education. One is immediate aim and another is ultimate aim. Immediate aim is also called as "bread and butter aim" i.e. for vocation. Herbert Spenser's emphasis on earning a livelihood, Franklin Bobbitts Stress on vocational activities, secondary education commission's emphasis on vocational efficiency and Kothari commission's emphasis on vocational, technical and industrial education-all uphold this aim. Today there is a huge cry for job oriented education.

Money is needed for livelihood of every human being. To earn money, there should be some job. An earning member will be self sufficient and independent. The aim of education should be to enable the individual to make both ends meet and earn money to live peacefully. Of course, money is not the only thing which gives peace or happiness. But it is needed for livelihood. Only a man who has sufficient food to eat can be happy and do certain creative things. One can't expect a hungry man to be creative and progressive.

Vocationalization of education is an important slogan of modern democratic education. "Education with vocational aim will balance the distinctive capacity of the individual with social service"

Such balance leads to social efficiency. Gandhi said that "True education ought to be a kind of insurance against unemployment". The concept of basic education of Gandhiji was self-supporting and craft-centered. The main purpose was to create jobs and prepare individuals to go for self- jobs and to earn money for independent life, economic independence and self- sufficient. The university education commission 1948-49 has very rightly said, "If we wish to bring about a savage upheaval in our society a Rakshas raj, all what we need to do is to give vocational and technical education to starve the spirit...." Every citizen must be good citizen and a good producer. To become a good producer he has to work in a job, Hence education for vocational is the need of hour.

Social Aims:

Social aims are those, which helps in the development of individual, keeping in mind the development of society. Democratic citizenship, culture, national integration and international brotherhood are some of the important social aims.

Democratic Citizenship:

Ours is a democratic country. It is necessary for the success of democracy that every citizen should love democracy and understand the principles of democracy. In a democrative country there is a great need of developing child into a responsible citizen. Care is

to be taken to see that every individual is trained for democratic citizenship. Education should have an aim of developing individuals who have clear thinking power and have civic responsibilities.

"An educated citizenry are a greater defense to a democratic country than a vast standing army."

                                            - Barke

The democratic citizen must have the following qualities,

- The true citizen of a democratic country must think very clearly and independently about his nation, its culture and problems. He must develop positive thinking towards the society where he lives. His thinking must be not only clear but creative and positive.
- The educated citizens should be ready to accept new ideas. Their minds should always be opened for whatever that is good and useful for the society. Nation's progress and creative construction is possible only when we welcome new ideas.
- Individuals are to be educated regarding civic responsibilities, awareness of dignity of labor, time sense, duty sense, discipline and courage.
- The citizens of a democratic country must be true patriots. They must develop true patriotism. Some thinkers are of the opinion that the aim of education is to develop true patriotism. The citizens must be ready to sacrifice everything for their country.
- Individuals of a democratic country must learn through co-operative work. They must understand their responsibility and must be intelligent in solving problems.
- The democratic citizens must have a broad mind. They must love all and develop human relations. They must respect each other.
- Obedience, patience, respect to law and respect to all, lover of truth, beauty and goodness, faith in leadership, faith in democratic principles are some of the qualities to be developed in the citizens of a democratic country.
- The citizens of democracy must develop scientific bent of mind. They must think objectively with open mind.
- They must be conscious about social needs and opportunities.
- They must accept and follow the principle of democracy such as social justice, freedom, equality and brother hood.

Education should aim at developing all the above qualities in the individuals for democratic citizenship. All round development of the personality of an individual is needed for democratic citizenship. Healthy, intelligent, creative, productive, progressive and disciplined patriotic citizens only will help in the success of democracy and its survival.

Culture:

Culture is the way of 'living' and it is 'what we are'. Culture depicts our nature. Man should be cultured. It means he should have good nature. One of the aims of education is to develop good culture among individuals. Any society or nation will be cultured only when its citizens are cultured. It is education that prepares cultured citizens. Culture has a very wide meaning. It is something cultivated as a result long experience of the race, something ripened. It is the ideas, customs and social behavior of a particular people or society.

Culture is that complex which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits, acquired by man as a member of society.

                                                                                                    -Tailor

'Culture refers to the accumulation of thoughts, values and objects. It is the social heritage acquired by us from proceeding generations through learning'…

                                                                                          -Graham Walls

Qualities of a Cultured Person:
- The cultured individual has broad human interests.
- He/ she must have social efficiency and socially acceptable behavior.
- He/ she must be able to appreciate ideas and art.
- He/she should be excellent in arts manner and scholarly pursuits.
- A cultured person is educated, polished and refined showing or having good taste and manners.
- A cultured person is one who is educated and knows all about arts, literature and music.
- Cultured people do favors and good deeds for others.
- Cultured are those who forgive those who have done wrong.
- A cultured person is he who respects others rights.

Education should have an aim of developing such culture individuals. The cultured individuals can develop ideal personality and rise to the standards of the country. They lead socially desirable life. It is education which can cultivate such cultured qualities in man. A man of culture is really an asset to the society. Cultured people are the pillars of the nation and society. Culture refines our speech, manner and total behavior of life. Along with aims of knowledge, Character and vocation, education should also aim at developing cultured people. It is the need of the day.

National Integration:

National Integration is the awareness of a common identity amongst the citizens of a country. It means that though we belong to different religions, castes and speak different languages we should be aware of the fact that we are all one. National Integration is of utmost importance in building a strong and prosperous nation. Ours is a country of mixed culture. It is a multi-religious and multilingual country. In spite of these great differences we should develop a broad outlook of oneness i.e. unity in diversity.

National Integration is a feeling of unity within diversity. National identity is supreme. National Integration means oneness of nation. As for as our country is concerned national Integration has been always the need of the hour. It is inevitable for us to find unity in diversity. It is education which has great responsibility of bringing Integration among all. Education should aim at national Integration. **Dr. Radhakrishnan** said, 'National Integration can't be built by bricks and mortar, chisel and hammer, but is silently grows in the minds of people through education'.

National Integration is the process through which people live within the geographical boundaries of a country forget those differences of race, religion and language and feel the spirit of unity and allegiance to the nation. India is a diverse country with people belonging to different caste, creed religion and language. Living together of course is very difficult. But still

oneness is needed. Education is such a great instrument which can create awareness in our children and youth, the feeling of oneness. India has a unique and wonderful culture. It is a land of different castes creeds etc. In spite of these divergences there is always a general feeling of oneness and Indian-ness. During the great difference of languages, religions, castes and creeds etc. people of India joined their hands to drive out British power from the soil of India.

But in recent years, unprecedented house of communalism, terrorism, castism. Linguism and provincialism has raised its ugly heads in different pockets of India. Hence awareness of national integration has become the need of hour. Education should aim at developing awareness among the citizens of India a feeling of oneness, common identity, nationalism, patriotism and sense of loyalty towards the nation. Educational commissions have laid emphasis on social and national Integration. A common system of public education is needed. Proper language policy is to be evolved. Educational programmers are to be planned in such a way that they succeed in creating awareness of oneness among all individuals in the country. Education should aim at national Integration. In this regard, following steps are to be taken.

- Importance and compulsory recitation of national anthem.
- National festivals and national days are meaningfully celebrated.
- Giving respect by celebrating birth days of those who have sacrificed their life for the freedom and unity of the country.
- National language is to be given utmost importance.
- Students are to be acquainted with India history and culture.
- 'Education for all' and 'educational opportunities for all' should be the motto.
- Awareness of giving respect to National flag and national symbol is to be created.
- School curriculum should include such subjects and topics through which awareness of oneness is achieved.
- The teacher has unique role to play in developing the value of oneness among children.

International Brotherhood:

Education should not only aim at national Integration, but also aim at international brotherhood. Today is the day of globalization. The whole world is becoming a small village.

There has been a good deal of discussions and efforts to create international brotherhood. So far, the world has seen two great wars. The result of which has become very painful and intolerable. A true human being will never anticipate such wars again. The world of pain, sorrow and cold war is to be ended and a word of smile of co-operation and oneness is to be created. There is a great need of understanding international brotherhood. If the humanity is to be survived, man must learn to live together. This is possible only through proper education. Education must aim at inculcating such ideas in our children, by which they learn to live as brothers of a single family. One has to remember the views of **Rabindranth Tagore** in this regard. "The whole universe is a single family and all are its members"

A Sanskrit saying goes like 'this **'Vaudaiva kutumbakam'** It means **'the whole universe is a family'.**

The concept of 'one world' 'one community' and interdependence of people irrespective of nations is the need of the hour today. If we want to lead a happy and contented life, without any fear, there is a great need of interdependence. In order to create international peace and to save human beings from jealousy, hatredness, ego, It is essential to create international brotherhood among men. Education should play a vital role in this regard. Only through proper education, people can learn to live as the people of one community. There are other Medias like press, radio, television etc., to bring people together. But it is education which is a powerful means that creates the feeling of oneness among young generation. Teachers can do this job effectively. They can effectively inculcate the universal values of international brotherhood. Education is a powerful instrument which can change the narrow attitudes of our children. Following points are to be kept in mind to promote international brotherhood.

- introducing such subjects in the curriculum through which a sense of world community is developed.
- Study and appreciation of the different achievements of all nations.
- Creative feeling of brotherhood at international level by conducting sports and cultural competitions at international level.
- Knowledge about the functions of UNO, UNESCO, UNICEF and SAARC is provided to all at all stages of education.
- making children to understand the social, cultural and economic conditions of the world and try to inculcate the feeling of interdependence.
- enabling the learners to respect the human rights and their protection.
- Making children to understand the effects of previous world wars on human community.
- Develop human values in children.
- To make them to understand that peace has great value than war.

Activity

A report on, "to compare and contrast the philosophical thoughts of Indian and western thinkers on contemporary education."

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Exercise Questions

I   Answer the following questions in a sentence each

1. Write the etymological meaning of the term 'education'.
2. Write the meaning of term 'Education'.
3. What is the meaning of the term 'Educare'?
4. Write the meaning of the term 'Educere'.
5. What is the narrower meaning of Education?
6. Name the two bases of Education.
7. Define 'Philosophy'.
8. What is Philosophy?
9. Write the Etymological meaning of the term 'Philosophy'.
10. What is Psychology?
11. Define Psychology.
12. Write the Etymological meaning of the term 'Psychology'.
13. What is Sociology?
14. Write the Etymological meaning of the term 'Sociology'.
15. What is health?
16. What is Culture?
17. What is Citizenship?
18. What is National-integration?

II   Answer the following questions in 2-3 sentences each

1. Write the meaning of the terms 'Educare' and 'Educere'.
2. Education is 'Bi-polar process'.Elucidite
3. Education is 'Tri-polar process' Elucidite
4. Write the meaning of Education in the view of Swamy Vivekananda.
5. Write the meaning of Education in the view of J Krishnamurthy.
6. Write the meaning of Education in the view of Rousseau?
7. Write the meaning of Education in the view of Rabindranath Tagore?
8. Write the meaning of Education in the view of Montessori.
9. What are bases of Education? Give two examples.
10. What is the concept of Philosophy?
11. What is the concept of Psychology?
12. What is the concept of Democratic Citizenship?
13. What is the concept of International Brotherhood?
14. What is the concept of National Integration?
15. What is the concept of culture?

III   Answer the following questions in not more than a page each

1. Write the Wider meaning of Education?
2. Justify Philosophy as the base for Education.
3. Justify Psychology is base for Education.

4. Justify Sociology is base for Education.
5. Aim of education is to create sound health - Elucidate.
6. Character development is the aim of Education-Elucidate.
7. 'Aim of Education is vocational achievement'- Elucidate.
8. What are the Characteristics of democratic citizen?
9. What is the role of Education in national integration?
10. What is the role of Education in bringing international-brotherhood?
11. Cultural development is the aim of education-Elucidate
12. Explain the knowledge aim of education.

IV **Answer the following questions in not more than two pages each**

1. Explain the Philosophical and Sociological bases of Education.
2. Explain any two Individual aims of Education.
3. What is importance of 'culture' and 'national integration' as Social aims of Education?
4. Write about the meaning of education in the view of Indian thinkers.
5. Write about the meaning of education in the view of Western thinkers.

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UNIT 2:

Development of an Individual

2.1 Meaning of growth and development and their differences.

2.2 Principles of growth and development.

2.3 Physical, Cognitive, Social and Emotional development

-Earlychildhood-Laterchildhood and adolescence

-The Problems of adolescents and remedies.

2.4 Role of heredity and environment in the development of an individual.

Objectives:

At the end of the instruction of this unit, students will,

- Tell meaning of growth and development and their differences.
- Explain the principles of development.
- Understand different stages of development of an individual and explain the educational importance of these different stages.
- Explain the role of heredity and environment in the development of an individual
- Develop favorable attitude towards the principles of development.
- Develop noble attitude towards parents and teachers and learn to adjust with them.
- Develop favorable attitude towards parental heritage and also towards the environment they live.
- After knowing the significance of various stages of development such as physical, cognitive, emotional and social of early-later childhood and adolescence period student will develop balanced personality.

UNIT 2:

Development of an Individual

Education is a process of bringing an all round development of personality of the child. Formal agencies of education like schools and colleges, informal agencies like family and society and mass-media have a great role to play in this process. They guide and help in the physical, Cognitive, social and emotional development of the child. Education is a process of manifesting the innate powers of the child. In order to give proper education, it is very important for both parents and teachers to understand the innate capacities of the child and to provide suitable opportunities for the development of those capacities.

For this, they have to understand the role of heredity and environment in the growth and development of the child. It is also essential to know and understand the concepts of growth and development of the child in different stages and in different dimensions.

2.1 Meaning of growth and development and their differences.

Meaning of growth and development:

Growth:

The word 'growth' refers to the quantitative aspect of changes that take place in the child. It implies the physical changes in the child i.e. increase in size, height and weight etc.

It also includes the changes in the bodily proportions of the child. It stops at a certain stage when the individual reaches puberty. Growth can be easily measured.

Meaning of development:

The word 'development' refers to the qualitative aspect of changes that take place in the child. It implies all sorts of changes that occur in the individual throughout life. It includes changes in behavior and proper functioning of the individual in his physical, Cognitive, social and emotional aspects. The term 'development' implies the overall changes occurring in both quantitative and qualitative aspects. Hence it has a wider and comprehensive meaning than the term growth.

Differences between growth and development:

The terms growth and development are often used interchangeably and regarded as synonymous terms. In general, they refer to changes that occurred by the interaction of one's genetic and environmental factors. However, they differ in a sense and are capable of conveying different meanings.

The following table clearly shows the differences between the two.

Sl.No.	Growth	Development
1.	Narrow meaning limited in scope.	Comprehensive & and wider in scope.
2.	Refers to the quantitative aspect of changes.	Refers to both quantitative and qualitative aspects of changes.
3.	Refers to the increase in size, height and weight.	Refers to the overall changes structural as well as functional.
4.	Specific, fairly easy to observe.	Complex process and cannot be observed easily.
5.	It stops at certain stage.	It is a continuous process.
6.	It can be easily measured by using measuring tools.	It cannot be measured easily. Assessment is possible only on observation of behavior.
7.	It is external in nature.	It is both external and internal in nature.
8.	It is a part of developmental process.	Growth is one of its parts.
9.	Growth may or may not bring development.	Development is possible without growth.

2.2 Principles of growth and development:

The changes brought about in the individual by the process of growth and development tends to follow some well definite principles. Some of the important principles are as follows,

1. Development is the joint product of both heredity and environment

Heredity and environment are the determining factors for the growth and development of the individual. The genes present in the chromosomes bring different characteristic features with regard to physical, cognitive, social and emotional aspects. Environment helps in the development of these. Though there is difference of opinion regarding the role of heredity and environment, both are important and development is the joint product of both.

2. Development is a continuous process

The development of an individual starts from the moment of conception in the mother's womb and ends at the death. It is a continuous process throughout the life. But it is to be noted that growth stops at certain stage.

3. Development follows a uniform pattern

Though there is individual differences among children in their growth and development, yet it follows a definite sequence common to the offspring's of human beings. Offspring's develop their head first and other parts of body later. The motor and language development in human off springs has also a definite sequence.

4. Development is based on individual differences

No two children are alike. There exist wide individual differences among children with respect to their growth and development in various dimensions. Each child develops in his own unique rate. This is due to the influence of both heredity and environment. Hence it is an individualized process.

5. Rate of growth and development is not even or uniform

Growth and development though continuous, yet its rate of development is not uniform at all times. It is more rapid in the early years of life, but slows down in later years of infancy. Again at the age of puberty, there is a sudden rise in the speed of growth and development.

6. Development proceeds from general to specific responses

In all phases of child's development, general activity precedes specific activity. The move ments of the child are of a general nature in the beginning .But later on they become specific. For example in the beginning children will not be able to hold things by fingers but later on they hold things by fingers. In the same way, while crying, the whole body of the child is involved, but in later stages only vocal cords are involved.

7. Interrelation among various dimensions:

The growth and development in various dimensions like physical, mental and social etc., are inter -related and interdependent. Growth and development in one dimension affect the growth and development of the child in other dimensions. It has been observed that children who are highly intelligent have a robust health, where as children with a lower intelligence have a weak health.

8. Development is predictable

Every child develops in his own way, with the help of the rate of growth and development of a child. It is possible for us to predict the range within which his /her matured development is going to fall.e.g. X-rays of the bones of the wrist of a child will tell approximately what his ultimate size will be. In the same way, the knowledge of mental ability of a child will help in predicting his ultimate mental development.

2.3 Physical, Cognitive, Social and Emotional development-Early childhood-Later childhood and Adolescence – Problems of adolescents and remedies.

Based on the growth and development of the individual, psychologists have divided the human lifetime into many stages. **Elizebeth B. Hurlock** proposes certain stages which are as follows,

Sl. No.	Stages	period
1	Pre-natal	Conception to birth
2	Infancy	birth to 2nd week
3	Babyhood	2nd week to 2 years
4	Early child hood	2 to 6 years
5	Later childhood	6 to 12 years
6	Puberty	12 to 13/14 years
7	Adolescence	13/14 to 18/19 years
8	Adulthood	18/19 to 40 years
9	Middle age	40 to 60 years
10	Old age	60 to till death.

Among these stages, importance is given to the early and later childhood and adolescence stages as because of the educational importance at these stages. It is very important for both parents and teachers to understand the physical, Cognitive, social and emotional development of children during these stages.

Early childhood:

Early childhood starts at the end of 2nd year. This stage starts after infancy. Its period is between 2nd and 6th year of the child. It is also called as the pre-school stage.

Physical development:

When compared to the infancy stage the physical growth is slow and steady. The child gains the height at the average rate of about 3 inches per year. The average increase in weight is about 2 to 2 ½ kilograms. Per year. The bodily proportion of the child is changed. The child develops the co-ordination of its finger muscles. The development of head is slow. The child acquires motor skills like running, jumping, climbing, catching and throwing etc.

Cognitive development:

At this stage, the children develop its Cognitive capacities. They will attend to the basic needs of feeding and clothing. They develop the instinct of curiosity. They are curious about the happenings about their surroundings. Though immature in intelligence, they are imaginative. Of course, they lack reasoning and abstract thinking. During this stage they develop the concepts of size, shape, color, time and distance. The children have a good memory at this stage. But it is a rote memory. They cramp and produce the matter. They listen to their parents and develop their own vocabulary. They become creative. This is exhibited in their activities like clay modeling, drawing pictures, panting etc. They concentrate on particular activities and involve in such activities.

Social development:

Children develop their social personality in the family. The attitude of independence develops. They mingle with their friends of same age and develop adjusting nature with them. They also adjust with their neighbors. The children of the same age group play together and develop social characters like co-operation, co-hesiveness. They have common interests and attitudes in the group. At the end of this stage attitude like disobedience, quarreling and attacking nature begin to develop.

Emotional development:

Children express a number of emotions. They are highly attached to their parent and elder members in the family. There is a close and affectionate relationship between them. Emotions are expressed for simple reasons and they are temporary. Children will have no control over their emotions. The main emotions expressed during this stage are,

1. **Fear:** children are afraid of many things. They are afraid of new persons, animals and things. Even they fear to enter dark room.

2. **Anger:** children become angry for simple reasons. When they are not satisfied with food or when anybody teases them, they express angriness. They express these emotions by crying, throwing things etc.

3. **Jealousy:** the child is usually jealous with the new born baby. It expresses jealous nature with the children who are very close to its parent's .They are jealous even with their own sisters and brothers.

4. **Curiosity:** children develop and express curiosity when they come across with new persons and new happenings around them. They ask questions with curiosity with regard to new happenings.

5. **Love and affection**:

Children are deeply attached to their parents. They expect love and affection from their parents, elders and their relatives. They develop love and affection towards their close friends, domestic animals and even with things which they care more.

6. **Attachment**:

Children are deeply attached to their parents. Usually boys are attached to their mothers and girls to the father.

Educational importance:

- Parents should see that the children are cared more. There should be a healthy environment in the family. They should have 'sweet home'.
- The curiosity of children is to be praised and they must be satisfied with proper guidance.
- Good manners, affectionate attitudes of parents and elders will help children to develop well.
- Balanced diet and healthy atmosphere will keep children grow properly.
- Good reading materials and creative activities provided in family help children in their Cognitive development.
- Proper guidance and counseling help children socially and emotionally well.

Later childhood:

The period of childhood starts from 6 to 12 years. It continues till the time of puberty. The child enters school at this stage. The study of the development of growth and development at this stage is of utmost importance as the child enters the first stage of formal education i.e. primary education.

Physical development:

Physical growth is slow and steady in this stage. At the end of this stage i.e. during the stage of puberty, the physical growth increases at a high speed. The average increase in height is about 2 to 3 inches per year and that of weight is about 2 to 3 kilograms. At the end of this stage the physical growth of girls is faster than boys. During this stage all bodily proportions change. Permanent teeth are found and the shape of the face is changed. Arms and legs increase in size. Automatically motor skills are developed. Children enjoy in playing different games and sports and develop different types of skills. At the end of this stage girls reach the stage of puberty and they are more worried about their beauty.

Cognitive development:

This is the stage of Cognitive development. Language development is very fast in this stage. Vocabulary develops and the children express their feelings by using words and constructing sentences. This is the stage where information and ideas are collected by children. They start learning; reading, writing, and arithmetic (3R's).They develop the ability of learning and memory power. They develop logical thinking power also. They develop new concepts while learning in schools. Teaching-learning process helps them to understand different concepts and they start asking questions in a logical way. Along with school education, mass-media helps them a lot to understand different concepts. Creativity and imagination power develops. Children try to understand the problems and attempts to solve them independently. They develop scientific attitudes and try to think in a scientific manner. **Piaget** is of the opinion that children at the age of seven enters the period of concrete operations and at the age of eleven they enter the period of formal operations.

Social development:

At this stage social instincts ripens. The boy/girl finds opportunity to mingle with their friends in the neighborhood and in schools. They involve in give and take process. This stage is called as gang period or **Koota Yuga.** They exchange ideas and views with each other. They are very loyal to their gang and obey the rules of the gang very promptly. They work in the group as responsible individuals and cultivate the social behaviors. At this stage a child mingle with the children of their age and sex and forms their own groups. They try to be with the group more time then the home. This opportunity helps them in their socialization process. Sometimes in some groups children will learn bad habits also and this develops disobedience in some children. It may lead to juvenile delinquency also. In schools games and sports and other co- curricular activities help children in their social development. Group consciousness and group cohesiveness is also developed. The selfish nature of the child. Ego-centric behavior and attacking nature are minimized. Sense of co-operation and sympathy develops.

Emotional development:

Emotional balance is the significant feature of this stage. Though emotions of anger, fear, or anxiety still persists, emotions will be pleasant and balanced.

Fear:

The reasons for fear in the early childhood gradually vanish. In this stage children, fear due to abstract feelings like failure in the examination and loneliness etc.

Angry:

In this stage, children become angry when they fail in certain competitions, teased by others, elders interference in their activities and when they are compared to others etc.

Jealousy:

A Child is jealous about other child when the latter has scored more marks or shows more achievement in competitions etc. Jealousy is also due the differentiation made by parents in home and by teachers in schools.

Love and affection:

Emotions like love and affection are well balanced.

Educational importance:

- Parents should take responsibility and create healthy environment for the proper physical growth of children. The basic needs of the child are to be fulfilled. Good and proper educational provisions are to be provided.
- Balanced diet and opportunities to participate in games and sports help children to grow properly.
- Proper guidance of parents and teachers will help in the Cognitive development of the child.
- The child is allowed to participate in group activities so that he gets opportunity to develop social habits and behaviors.
- There is a great need of love and affection of both parents and teachers to the child so that he feels secured and controls his emotions.
- Parents and teachers should be model with regards to the language so that their children imitate and learn good and correct language.

Adolescent Stage (from 13to 18 years):

Adolescence is the most important period of human life. The word 'Adolescence' derived from the Latin word 'Adolescere' which means to grow to maturity. This is the period which falls between the later childhood and adulthood. It is called as the 'teen age'.

"Adolescence is that span of years during which boys and girls move from childhood to adulthood -, mentally, emotionally, socially and physically".

                                                                    -Jersield. A. T.

Adolescence refers to the "process of development and adjustment during the so called transitional period between childhood and maturity-roughly the teen years…….."

                                                        -Encyclopedia of educational research

Physical development:

During adolescent stage, significant changes are observed in physical growth. These bring marked changes in the behavior of adolescent. Following are some of the changes observed.

1. Height and weight: there is a sudden increase in both height and weight. Boys and girls differ in their growth of height and weight. Usually girls are taller at the age of 13 and boys grow taller at the age of 15+.

2. Bodily proportions: marked changes are observed in the bodily proportions at this stage. Different parts of the body grow and attain maximum development. Bones become longer and harder. Arms and legs grow longer. Facial changes occur. The internal system of the body like respiratory, digestive and excretory system will develop. Brain also develops.

3. Voice: Significant change can be observed in the voice of the adolescents. Voice of boys becomes harsh and that of girls become shrill. Change in voice affects the behavior of the adolescents. Change of voice depends upon the maturity period.

4. Motor ability: With regard to motor ability, boys will show speedy and active muscular ability. Normally girls show less ability when compared to boys. They show ability in developing skills. These motor abilities help them in their personality development.

5. Sexual changes: These changes are very significant during adolescence. These changes affect the attitude and behavior of adolescents. The secretions of hormones by pituitary glands are the main cause for sexual changes. Male sex organ produce spermatozoa which produce sperms and female sex organs produce ovary which produce ova.

Following sex features are observed

- Sex glands are developed
- Growth of pubic hair around sex organs.
- Growth of hair in the armpit, legs and chest in boys.
- Growth beard and mustache and the tone of the voice deepen.
- Girls develop breasts.
- Growth of pubic hair and voice becomes shrill in girls.

6. Internal changes in the body: At the end of this stage, changes in the internal body reach maximum development. Digestive, respiratory and blood circulation systems reach maturity. Before 18 years heart and brain develop completely.

7. Adrenaline glands secrets harmones. This effects the physical growth of the individual.

Cognitive development:

During adolescence, significant changes are observed in cognitive development. Following are some of the features of Cognitive development.

- The general intelligence of the individual is increased. They reach Cognitive maturity.
- The adolescents will develop the capacity to comprehend and communicate meanings of different concepts.
- They develop the capacity of generalizing the complex concepts.
- They recognize the complexity of the problems and try to solve them independently.
- They develop the power of abstract thinking.

- Tremendous memory power and development of vocabulary helps in communication process.
- They think independently and take their own decisions in many cases.
- They try to gain name and fame in the family, in school and in the society.
- They are not ready to accept the moral code of elders.
- Scientific thinking and scientific temper develops.

Social development:

A lot of changes are observed during adolescent stage. The elders expect more responsibility from adolescents and the adolescents find it difficult to adjust with. The period is neither of childhood nor of adulthood. Hence social adjustment is very difficult. Following are some of the characteristic features of social development.

- Adolescents spend their time with their friends of same age. Their social behavior is determined on how they select friends. Their interests, attitudes and values are influenced by their friends.
- In family, the role of adolescents changes. Parents view also changes with regard to adolescents. Parents provide more responsibility to them. While taking decisions they ask the opinion of adolescents. They take them into confidence. Adolescent's try to take over the role of adolescents.
- Adolescents form their own groups based on their interests and attitudes. The group of boys will be large when compared to the groups of girls. there will be 'Friends group',' Peer group',' Youth group' etc.
- Making friendship is another characteristic feature of adolescence. Friendship with opposite sex is more seen. Adolescence begins to talk and move with opposite sex. Sometimes they fail to select good friends. This may lead to some unhealthy happenings.
- Some adolescents develop leadership qualities. Some of them are creative; duty minded, disciplined and has an ability of attracting others. They have decision making power and lead others.
- Some adolescents attract friends, teachers and other elder members of the society and become 'stars'. Some others prefer loneliness and become 'isolates'.
- Socially matured adolescents get social status and exhibit balanced attitude. This manages successfully to adjust with new situation in the society.
- Some adolescents develop vocational interest and search for jobs to earn money.

Emotional development:

With the new changes in internal and external parts of the body, adolescents face many emotional problems. It's a period of stress and strain. They fail to understand the sudden changes in their body. A sort of fear and confusion leads to emotional imbalance. Sometimes they become mal-adjusted as the emotions will be very complex in nature.

Emotions develop out of feelings of excitement as love and affection, joy and pleasure, worry, anger and fear.

1.   **Love and affection:** The emotion of love is related to sexual impulse. In adolescence love and affection is associated with people and pets. Love becomes source of pleasure.

2.   **Joy and Pleasure :** Physical condition is one of sources of joy and pleasure in this stage.

3.   **Worry :** Adolescents have two types of worries-worries related to school work such as tests lack of concentration etc. Home worries like lack of understanding, illness of parents, marriege problems etc.

4.   **Anger :** Adolescents become anger due to, failure to get material objects, teaching of parents and teachers, being unfairly treated etc.

5.   **Fear:** Fear is caused due to objects like snakes, wild animals etc and being with elders, being alone, meeting with opposite sex etc

Causes for Heightened Emotionality :

- Finds difficult to adjust with new social situations.
- Force to develop new habits.
- Find problems while moving from independence to dependence.
- Failure of parents to understand the feelings, interests and attitudes of their children.
- While managing new responsibilities.
- Fails to adjust with the parents many times with regard to performing of rituals etc.They sometimes quarrel and even move away from home.
- Many times adolescents fail to adjust to the expectations of the society and become maladjusted.
- This is the period where opposite sex are attracted. When they fail to attract others and also fail to get attracted by others, they will be frustrated.
- When they fail in the examinations, some adolescents are so disturbed that they even think of committing suicide.
- Those who are interested in earning money go in search of jobs. when they fail to get jobs, they are frustrated.

Problems of adolescents and remedies:

Problems of adolescent stage are neither childhood stage nor adulthood stage. Adolescents are too young to take self-decisions and too old to depend upon others. Along with this, they face a lot of new changes as far as their physical growth is concerned. Hence they face lot of problems. Some of them are as follows,

Adjustment problems: Adolescents find it very difficult to adjust with their parents and elders in the family. They fail to adjust with teachers, friends and even with the other members of the society.

Teaching –learning problems: adolescents fail to concentrate on studies in schools. They cannot be attentive towards teaching. They usually face problems like negative attitudes of teachers, dull and boring teaching, heavy workload, heavy loaded curriculum, lack of interest etc.,

Economic problems: those who come from below average and below poverty level families will face economic problems. They cannot fulfill their basic needs. They develop economic inferiority complex. Some adolescents go for part time jobs to earn. Those who fail to get job depend upon their parents.

Social conflicts: Adolescents face some social conflicts. The great expectations of parents, lack of independence, lot of difference between aspirations and abilities, fail to fulfill the social expectations – all these create social conflicts in adolescents. The rural students when they go for studies to urban areas finds difficult to adjust with their new friends and its social environment.

Health problems: Adolescents are always worried about their beauty. Boys are in the habits of developing good physique by doing exercises or going to gym etc. Girls are more conscious about their beauty. When both fail to look smart or beautiful, they face problems of inferiority complex. Those boys who are not handsome and girls who are not beautiful to look at, suffers psychologically. They are jealous about those who are handsome and beautiful.

Sex problems: Sexual changes that occur inside the body of adolescents create many problems. Most of them fail to understand the real problems for these changes. They are either afraid of these changes or under confusion. As adolescents are interested in opposite sex during this stage, they try to make friendship with opposite sex. When they fail to get it, they are upset psychologically. They even fail to behave properly with opposite sex and suffer a lot.

Problems of same age group: Some adolescents are influenced more by their friends of same age group. They try to spend more time with them. Some of them are influenced and starts smoking, consuming alcohol, drugs, and even sometimes involve in illegal sex activities. They face severe problems with their personal and social health

Psychological problems: some adolescents face socio - psychological problems. They suffer due to following conflicts.

1. Reality verses illusion.
2. Actual life verses day dreaming.
3. Independence verses dependence
4. Ideal verses non- ideal. Etc,

Many adolescents fail to control their emotions and develop unnecessary conflicts and suffer psychologically. They fail to understand their role and status in the society and suffer either from superiority or from inferiority complexes. Some of them become psychic and become burden to the family and society.

• **Unemployment problems:** In our country, more than 80% students in their adolescent stage go in search of jobs. It is mainly due to poverty. Those who fail to get job, suffer a lot. They are more worried about their future. Lack of parent and teacher guidance, lack of vocational and educational guidance is the main cause for it. Some of them are frustrated due to unhealthy competitions, reservation, and corruption, low salary, political interference, etc, Most of them don't get job satisfaction and face psychological, sociological and economic problem.

• **Problems of mental stress:** Adolescents easily become prey to stress .Failure in the examination; good jobs, love and lack of job satisfaction are some of the cause for stress. Stress management is very much important at this stage. One who fails to overcome the, stress develops suicide tendency.

Remedies :

There is a great need of understanding the problems of adolescent and to find out remedies. As the stage of adolescence is the turning point in the life of adolescents, great responsibility lies on the parents' elders and teachers. Their problems are to be tackled intelligently. Some of the following remedies suggested,

- Knowledge of adolescent psychology is must for both parents and teachers. They must be aware of the growth and development of adolescents with regard to the different dimensions like physical, cognitive social and emotional.
- Healthy and peaceful environment in the family.
- Balanced diet, regular exercises and opportunities for creative activities needed.
- Along with fulfilling the basic needs, parents love and affection is essential.
- Adolescents must feel secured in the family.
- Proper guidance and counseling regarding the problems of adolescents is to be given both in family and   school.
- Teachers are the most responsible persons in dealing with the problems of adolescents. Knowledge of adolescent psychology helps them in this regard. Being the role models, they must act as friends, philosophers and guides.
- Good administration, effective teaching, well organized co-curricular activities, help the adolescents in their proper growth and development.
- Introducing programs like A.C.C., N.C.C., Scouts, N.S.S. and educational tours.
- The curriculum must include variety of subjects like literature, art, science, music, dance, painting, drawing, acting etc.
- Subjects like physical education, health hygiene, and sex education, moral and religious education are introduced.
- Educational and vocational guidance is needed.

2.4 Role of heredity and environment in the growth and development of an individual:

The diversity among the living on this earth is really wonderful. Among the variety of living beings, we see both similarities and diversities in particular class of these living beings. Every living being in its class has its unique feature. Every living being has a capacity of giving birth to similar organisms. This is the law of nature. Man has also the capacity of giving birth to child. This process moves on from generation to generation. There is similarity between the parents and the child in some cases and there is a difference also in some cases. Usually children appear like their parents and grandparents. Sometimes they appear differently. Even twins also differ in their features. It is really interesting that we find similarities as well as differences. What is the cause for this? Heredity and environment are the two main factors which are responsible for these similarities and differences. Both of these have relative importance in the growth and development of an individual. There is controversy among psychologists. Some hold the importance of heredity as more and some others hold that environment plays a vital role. It is very essential to understand the role of heredity and environment in the development of an individual.

Heredity:

'Like begets like' .This means that a cat gives birth to kitten, a cow to a calf and human being to baby. Usually children resemble their parents or grandparents. But in many cases there appear differences also. The children of the same parents differ in many dimensions. Even the fraternal twins also differ in shape, size, color, sex etc. This is all due to the effect of pairing of genes which cannot be predictable

Meaning of Heredity:

"Heredity is the sum total of inborn individual traits."

                                                                            −B.N. Jha

"Heredity is the sum total of the traits potentially present in the fertilized ovum".
"Heredity refers to the biological process of transmissions of certain biological and psychological characteristics from the parents to their offspring's."

Mendel of Austria is well known in the field of heredity. He has conducted many experiments and his researches have thrown light on many interesting things in the process of heridity. The important persons in favor of heredity or Morgan, Karl Pearson, McDougal Squisinger, Godard and Galton.

Life begins with the conception in the mother's womb. The male and female reproductive organs produce germ cells. The male germ cells are called spermatozoa and female germ cells are called ova. The union of sperm with ovum produces zygote which in turn undergoes changes resulting in an offspring. In some cases two separate sperms unite with two separate ova resulting in two separate zygotes. These two zygotes results in two separate offspring's. They are called fraternal twins. Sometimes, the zygote formed by the union of a single sperm and a single ovum, breaks into two parts and the two parts develop separately as two offspring's. They are called as identical twins. The fertilized nucleus in the mother's womb has 23 pairs of chromosomes, 23 from the father and 23 from the mother. Each chromosome contains minute particles called 'genes' which are the real determinants of heredity. It is also understood that DNA and RNA have got role to play in heridity. Genes transmit characteristic features not only from parents but also from grandparents and great grandparents i.e. $1/2 + 1/2$ from parents, $1/4 + 1/4$ from grandparents and $1/8 + 1/8$ from great grandparents.

The following are some of the laws of heredity.

Laws of heredity:

1. Law of similarity: This law states that children resemble their parents in size, shape, color and other behaviors. But this law is not universally accepted.

2. Law of variation: This law states that children differ from their parents with regard to size, shape, color and other behaviors.

3. Law of regression: This law states that, in successive generations variations tend to move towards the average of species of which they form apart. The offspring's are always inclined to go towards the average of the species. Hence some children are more intelligent than their parents and vice-versa.

Thus heredity plays an important role in the growth and development of the individual. The important hereditariness like Francis Galton, Karl Pearson, and Mac-Dougal argue that heredity is the determinant factor in the growth and development of the individual.

The following studies and experiments help us in understanding the role of heredity.

Some experiments:

1. **Freeman, Newman and Hollinger** conducted experiment on three twins .The twins were grown in different environment. After certain period physical and mental tests were conducted. After comparing marks it was found that the growth in physical aspects was similar and there was difference in their mental ability.

2. **Squisinger** conducted experiment on ten identical twins. All were reared in different environments. At the time of puberty their mental ability were tested. There was no difference in six twins and other four twins showed minute differences.

3. **Francis Galton's** experiment on twins also shows that heredity has a vital role in the development of an individual.

4. **Medico genital association** conducted experiment on thousand pairs of identical twins for two years. The experiment shows the dominance of heredity.

5. In another experiment conducted in **America** on 2500 twins it was found that heredity was the main cause for intelligence.

6. The experiment of **B.S. Burks** also proves that 80% of the character features were due to heredity.

All the above studies and experiments prove that heredity play a vital role in the development of the individual.

Some family studies:

1. **Henry Godard** studied **kalikak's family**. Kalikak's first wife was a feeble minded woman. Among 480 decedents from her generation, 143 were feeble minded, and 46 only were normal. The rest were abnormal. The second wife of kalikak was normal. Among 496 decedents from her generation all most all were normal.

2. **McDougdel** studied **juke family**. Juke's son married a woman from a degenerate family. Out of five generations of this family, about 1200 individuals were born. Out of these only 20 were normal,

3. **Francis Galton** studied the family history of 977 famous persons. It is found that all most all the decedents were famous. He studied the history of another 977 average persons where he found only 4 persons were famous and others were average. Hence Galton said that intelligence is due to heredity.

Totally it can be said that the role of heredity is of utmost important in the growth and development of an individual. The effect of genes has its own effect on the behavior and intelligence of a person. There may be variations due to environment. But the effect of heredity cannot be discarded.

Environment:

The dictionary meaning of environment is 'surroundings'. It includes all the external conditions that influence the growth and development of individuals.

"The environment everything that affects the individual except his genes".

<div align="right">

-Boring, Long field and Weld
</div>

"Environment covers all the outside factors that have acted on the individual since he began life".

<div align="right">

–Wood worth.
</div>

Environment includes physical, social, cultural, economic and educational aspects which all influence the development of an individual. It is such a great force that affects the personality of an individual. Its effects start from the conceptions in the mother's womb .Whatever that affects the health of the mother, will also affect the child. After the birth, the family atmosphere, food, love and affection of elders and parents, friends, relatives, school environment, teacher, society, Medias –all have their unique role to play in the development of the child. This effect will always be there and it continues throughout the life of the individual. Hence it has a very great role to play on the development of the individual.

Environmentalists prove this through some studies. Some of the studies are as follows,

1. **Darwin's** theory of 'survival of the fittest' supports the effect of environment.

2. **The story of Ramu** is well known to all. Ramu, in his infancy, was taken away by wolf and lived for a certain period with wolf. He used to sound like wolf and drink like wolf. It is all due to the effect of environment. Thus many studies supports the effect of environment in the growth and development of an individual.

The great environmentalist, **Watson** challenges, "Give me healthy infants. Without caring for the heredity of those infants, I will make them whatever type of individual you wish".

Environment is of two types,

1. **Pre–natal environment:** It is the environment of a child inside the mother's womb. Whatever that influences the mother, influences the child also. Her physical, mental, social and educational environment affects the child. The physical and mental health of the mother, the food, her behavior-all will affect the child.

2. **Post-natal environment:** After the birth of the child, the whole surroundings of the child affects in its developments. The physical, social, cultural, economic and educational environment -all these have a vital role in the personality development of the child. Some of the very important factors which influence child's developments are as follows,

- The healthy physical environment.
- Nutritious food and care of the parents.
- Love and affection of the parents and elders
- Educational opportunities provided in the family.
- Socio–cultural factors like customs, traditions, and beliefs -all influence a lot in the development of an individual.
- Economic conditions of the family.
- Relationship with neighbors, relatives and friends.

- Everyday life experiences.
- Healthy school environment, organization of curricular and co – curricular activities in the school, effective teaching and good administration – all influence the personality of the child.
- The effect of mass media cannot be neglected. Today none of us are out of the influence of mass media.
- Proper guidance of parents, elders and teachers.

Relative importance of heredity and environment:

Though there is difference of opinions regarding the role of heredity and environment among hereditarians and environmentalists, it is very clear that both are equally important in the development of the individual. Heredity brings the innate capacities through genes and environment helps in the development of these capacities. The development of the individual is the result of the joint interaction of these two. Hence parents and teachers must understand the joint effect of these two and provide good and healthy environment so that the child can develop his /her personality well.

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Project/Assignment

Discuss the role of parents towards the problem of heredity and environment.

OR

Paper presentation on stages of growth and development of adolescence period. Discuss problems of teenagers and suggest measures to over come their problems.

Exercise Questions

I   Answer the following questions in a sentence each

1. What is the meaning of growth?
2. What is development?
3. Define heredity.
4. Write a definition of environment.
5. Write the etymological meaning of adolescence
6. Who is an adolescent?
7. What is heredity?
8. What is Environment?

II   Answer the following questions in 2-3 sentences each

1. Write the concept of growth.
2. Write the concept of development.

3. What is the concept of heredity?
4. Write the concept of environment.
5. Mention any two characteristic features of early childhood with regard to physical growth.
6. Mention any two characteristic features of early childhood with regard to cognitive development.
7. Mention any two characteristic features of later childhood with regard to emotional development.
8. Mention any two characteristic features of later childhood with regard to social development.
9. Mention any two characteristic features of adolescents with regard to social development
10. Mention any two characteristic features of adolescents with regard to emotional development
12. Write any two principles of growth and development.

III Answer the following questions in not more than a page each

1. Briefly explain the principles of development.
2. Distinguish between growth and development.
3. Write about the physical and cognitive development during later childhood.
4. Write about the emotional development during later childhood.
5. Explain the physical and cognitive development of adolescents.
6. Mention the problems of adolescents.
7. Suggest the remedies for the problems of adolescents.
8. Explain the role of environment in the development of an individual.
9. Explain the role of heredity in the development of an individual.
10. Briefly explain the experiments conducted in favor of heredity.

IV Answer the following questions in not more than two pages each

1. Explain the meaning and principles of growth and development.
2. Explain the physical, cognitive, social and emotional development during early childhood.
3. What are the problems of adolescents? Suggest remedies.
4. Explain the development of physical and emotional aspects during adolescent stage.
5. Explain their role of heredity and environment in the development of an individual.

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UNIT 3

LEARNING

3.1 Meaning and characteristics of learning

3.2 Types of learning-(Gagne's 8 types)

3.3 Theories of learning

- Developmental theory of learning (Piaget)
- Discovery theory of learning   (Bruner)
- Master theory of learning   (Bloom)
- Observational theory of learning   (Bandura)
- Constructive approach to learning

3.4 Factors influencing learning

- Maturation
- Motivation
- Attention and
- Memory

Objectives:

After the end of the instruction of this unit, students will,

- Explain the meaning and process of learning
- Explain the characteristics of learning
- Analyze Gagne's 8 types of learning.
- Describe the different theories of learning and apply constructive approach to learning process.
- Explain the different factors influencing learning

LEARNING PROCESS