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Above all, many thanks to the Great Almighty, the author of knowledge and wisdom, for his countless love.

- DR. DIMPLE S. PADAWE

PREFACE

The hand book titled “Definitions in Pediatric and Preventive Dentistry” is the outcome of a need to compile all the definitions in the subject of Pediatric and Preventive Dentistry. The objective of this hand book is to provide an easy access to all the relevant definitions and recent terminologies, which are of utmost importance for the undergraduate and postgraduate dental students to improve their basic knowledge and understanding of the various terms used in the field.

An attempt has been made to cover most of the definitions related to the subject in a very simplified manner along with the author’s name and year of publication.

It can’t be denied that the book is free of limitations, it might be lacking in few aspects and there could also be some minor mistakes. Though we have tried our best to keep the hand book free from errors, we sincerely apologize in case any error found.

If this hand book is found helpful to students, then the entire purpose of the book will be fulfilled. Please feel free to contact us if any question arises.

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1. INTRODUCTION TO PEDIATRIC DENTISTRY

- **DENTISTRY:**

Dentistry is defined as the evaluation, diagnosis, prevention and/or treatment (non-surgical, surgical or related procedures) of diseases, disorders and/or conditions of the oral cavity, maxillofacial area and/or the adjacent and associated structures and their impact on the human body; provided by the dentist, within the scope of his/her education, training and experience, in accordance with the ethics of the profession and applicable law.

(American dental association, 1997)

- **PEDIATRIC DENTISTRY:**

Practice and teaching of comprehensive, preventive and therapeutic oral health care of child from birth through adolescence. It is construed to include care for special patients who demonstrate mental, physical or emotional problems.

(Stewart, Barber, Troutman, Wei, 1982)

Pediatric dentistry, also known as Pedodontics and as dentistry for adolescents & children, is the area of dentistry concerned with preventive and therapeutic oral health care for children from birth to adolescence. It also includes special patients beyond the age of adolescence who demonstrate mental, physical or emotional problems.

(American academy of Pediatric dentistry (AAPD), 1985)

Pediatric dentistry is an age defined speciality that provides both primary and comprehensive, preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.

(American academy of Pediatric dentistry (AAPD), 1999)

The branch of dentistry devoted to the diagnosis and treatment of dental problems affecting children. Also called Pedodontics.

(Mosby's Medical Dictionary, 2009)

The branch of dentistry concerned with the dental care and treatment of children.

(Farlex medical dictionary, 2012)

Pediatric dentistry is an age defined speciality that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.

(American Dental Association (ADA), 2013)

The specialty of Pediatric Dentistry is the practice, teaching of and research in the comprehensive preventive and therapeutic oral care of children from birth to adolescence.

(European Academy of Pediatric Dentistry (EAPD), 2015)

- **EPHEBODONTICS/ADOLESCENT DENTISTRY:**
Ephebodontics is the science of dentistry which deals with the children who are in the process of growing up from childhood to manhood or womanhood.
(Dental clinics of North America, 1969)
- **HEALTH:**
Health is the state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity.
(World Health Organisation (WHO), 1948)
- **OPERATIONAL DEFINITION OF HEALTH:**
Health can be seen as a condition or quality of human organism expressing the adequate functioning of the organism in a given conditions, genetic or environmental.
(WHO, 1948)
- **ORAL HEALTH:**
Oral health is defined as a multifaceted phenomenon that entails “the ability to speak, smile, smell, taste, touch, chew, swallow, and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.
(Federation Dentaire Internationale (FDI), 2016)
- **DENTAL HOME:**
The dental ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, co-ordinated and family-centred way. Establishment of a dental home begins no later than 12 months of age includes referral to Dental specialists when appropriate.
(AAPD, 2004)
- **ANTICIPATORY GUIDANCE:**
Anticipatory guidance is described as a proactive, developmentally based counselling technique that focuses on the needs of a child at each stage of life.
(Nowak, 1995)

1. CASE HISTORY, DIAGNOSIS AND TREATMENT PLANNING IN PEDIATRIC DENTISTRY

- **CASE HISTORY:**
It is a planned professional conversation, which enables the patient to communicate his/her symptoms, feelings and fears to the clinician.
(Burket's oral medicine, 12th edition, 2015)
- **DIAGNOSIS:**
The process of identifying a disease by careful evaluation of signs and symptoms.
(Burket's oral medicine, 12th edition, 2015)
- **DIFFERENTIAL DIAGNOSIS:**
The process of listing out two or more diseases, having similar signs and symptoms of which only one could be attributed to the patient's suffering.
(Burket's oral medicine, 12th edition, 2015)
- **PROVISIONAL DIAGNOSIS:**
It is the diagnosis based on the clinical impression without any laboratory investigations-based on the history and clinical presentation of the patient we make an assessment of the current condition of the patient. This is followed by the special examinations, final diagnosis and treatment planning.
(Burket's oral medicine, 12th edition, 2015)
- **FINAL DIAGNOSIS:**
This is the final conclusive answer that has been reached upon by applying investigative reports to our differential diagnosis options.
(Burket's oral medicine, 12th edition, 2015)
- **TREATMENT PLAN:**
A documented plan that describes the patient's condition and procedure(s) that will be needed, detailing the treatment to be provided and expected outcome, and expected duration of the treatment prescribed by the physician.
(Burket's oral medicine, 12th edition, 2015)
- **SYMPTOM:**
Any morbid phenomenon or departure from the normal in structure, function or sensation experienced by the patient and indicative of a disease.
(Taber's medical dictionary)
- **SIGN:**
Any abnormality indicative of disease, discovered on examination of the patient.
(Taber's medical dictionary)

3. PEDIATRIC RADIOLOGY

- **RADIATION:**
Radiation is a form of energy carried by waves or a stream of particles.
(White and Pharoah, 8th edition, 2018)
- **RADIOLOGY:**
The science or study of radiation as used in medicine, a branch of medical science that deals with the use of X-rays, radioactive substances, and other form of radiant energy in the diagnosis and treatment of disease.
(White and Pharoah, 8th edition, 2018)
- **X-RAY:**
A beam of energy that has the power to penetrate substances and record image shadows on photographic film.
(White and Pharoah, 8th edition, 2018)
- **DENTAL RADIOGRAPH:**
Dental radiograph is a photographic image produced on film by the passage of x-ray through teeth and related structures.
(White and Pharoah, 8th edition, 2018)
- **DENTAL RADIOGRAPHY:**
Dental radiography is making of radiographs of the teeth and the adjacent structures by the exposure of film to x-ray.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC CONTRAST:**
Radiographic contrast is defined as the difference in densities between light and dark regions of a radiograph.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC SPEED:**
Radiographic speed refers to amount of radiation required to produce an image of a standard density.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC DENSITY:**
The degree of darkening or opacity of an exposed film is referred to as radiographic density.
(White and Pharoah, 8th edition, 2018)
- **FILM LATITUDE:**
Film latitude is a measure of range of exposures that can be recorded as distinguishable densities on a film.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC NOISE:**
Radiographic noise is the appearance of uneven density of a uniformly exposed radiographic film.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC SHARPNESS:**
Radiographic sharpness is the ability of a radiograph to define an edge precisely.
(White and Pharoah, 8th edition, 2018)

- **RADIOGRAPHIC RESOLUTION:**
 Radiographic resolution is the ability of a radiograph to record separate structures that are close together.
(White and Pharoah, 8th edition, 2018)
- **RADIOGRAPHIC MOTTLE:**
 Radiographic mottle is appearance of uneven densities of an exposed film.
(White and Pharoah, 8th edition, 2018)
- **QUALITY ASSURANCE:**
 Quality assurance is defined as a program for periodic assessment of the performance of all parts of radiographic procedure.
(White and Pharoah, 8th edition, 2018)
- **RADIOBIOLOGY:**
 Radiobiology is the study of effects of ionizing radiation on living systems. This discipline studies many levels of organization within biologic systems spanning broad ranges in size and time.
(White and Pharoah, 8th edition, 2018)
- **RADIATION CARIES:**
 Radiation caries is a rampant form of dental decay that may occur in individuals who receive a course of radiotherapy.
(White and Pharoah, 8th edition, 2018)
- **PANORAMIC IMAGING:**
 Panoramic imaging is a technique for producing a single image of facial structures that includes both the maxillary and the mandibular dental arches and supporting structures.
(White and Pharoah, 8th edition, 2018)
- **TUBE RATING:**
 Tube rating describes the longest exposure time the tube can be energized for a range of voltage (KVp) and current (Ma) values without risk of damage to target from overheating.
(White and Pharoah, 8th edition, 2018)
- **DUTY CYCLE:**
 Duty cycle frequency with which successive exposure can be made without overheating the anode.
(White and Pharoah, 8th edition, 2018)

4. GROWTH AND DEVELOPMENT

- **CELL:**
The smallest unit of living structure capable of independent existence, composed of a membrane-enclosed mass of protoplasm and containing a nucleus or nucleoid. Cells are highly variable and specialized in both structure and function, although all must at some stage replicate proteins and nucleic acids, use energy, and reproduce themselves.
(Farlex medical dictionary, 2012)
- **TISSUE:**
A collection of similar cells and their intercellular substance that perform a particular function.
(Taber's medical dictionary)
- **ORGAN:**
A body structure made of several tissues that all contribute to specific functions.
(Taber's medical dictionary)
- **ORGAN SYSTEM:**
A group of tissues or organs, often with a common embryological origin, that participate in the same major systemic activity, e.g., circulation or digestion.
(Taber's medical dictionary)
- **GROWTH**

Growth refers to increase in size	<i>(Todd,1931)</i>
Defined as developmental increase in mass	<i>(Stewart,1982)</i>
Growth refers to increase in size or number	<i>(Proffit,1986)</i>
Changes in amount of living substance	<i>(Moyer,1988)</i>
Change in any morphological parameter which is measurable	<i>(Moss)</i>
Self-multiplication of living substance.	<i>(JS Huxley)</i>
- **DEVELOPMENT**

Increase in complexity.	<i>(Todd,1931)</i>
Naturally occurring unidirectional changes in the life of an individual from its existence as a single cell to its elaboration as a multifunctional unit terminating in death.	<i>(Moyers,1988)</i>
Development addresses the progressive development of a tissue.	<i>(Pinkham,1994)</i>
A maturational process involving progressive differentiation at the cellular and tissue levels.	<i>(Enlow)</i>

- **DIFFERENTIAL GROWTH:**
The human body does not grow at the same rate throughout life. Different organs grow at different rates at a different amount and at different times.

(Orthodontics: Diagnosis and Management of Malocclusion and Dentofacial Deformities 3rd edition, o p kharbanda, 2019)

- **GROWTH SPURTS:**
Growth does not take place uniformly at all times. There seem to be periods when a sudden acceleration of growth occurs. This sudden increase in growth is called as growth spurt.

(Orthodontics: Diagnosis and Management of Malocclusion and Dentofacial Deformities 3rd edition, o p kharbanda, 2019)

- **CHRONOLOGICAL AGE:**
Chronological age is the amount of time that has passed from birth to given date.

(Orthodontics: Diagnosis and Management of Malocclusion and Dentofacial Deformities 3rd edition, o p kharbanda, 2019)

- **DENTAL AGE:**
The assessment of age of an individual depending on his or her dentition or teeth present in oral cavity.

(Orthodontics: Diagnosis and Management of Malocclusion and Dentofacial Deformities 3rd edition, o p kharbanda, 2019)

- **DENTAL AGE:**
The assessment of age of an individual depending on his or her dentition or teeth present in oral cavity.

(Mc Donald and Avery, 10th Edition, 2015)

- **SKELETAL AGE:**
An estimate of biological age based on radiological studies of the developmental stage of ossification centres of the long bones of the extremities.

(Farlex medical dictionary)

5. DIET AND NUTRITION

- **FOOD:**

Any substance, which when taken into the body of an organ may be used either to supply energy or to build a tissue

(Oxford Dental Dictionary)

Anything that is eaten, drunk or absorbed for maintenance of life, growth and repair of the tissues.

(Nizel, 1989)

Edible or potable substance (usually of animal or plant origin), consisting of nourishing and nutritive components such as carbohydrates, fats, proteins, essential mineral and vitamins, which (when ingested and assimilated through digestion) sustains life, generates energy, and provides growth, maintenance and health of the body

(Hazard Analysis and Critical Control Points, 2011)

- **DIET:**

It is referred to as food and drink regularly consumed

(Oxford Dental Dictionary)

Intake of substance that furnish nourishment body

(PM Randelph, 1981).

It is the total and/or calories to the Balanced Diet. It is the one, which contains varieties of foods in such quantities and proportion that the need for energy, amino acids, vitamins, fats, carbohydrates and other nutrients is adequately met for maintaining health, vitality and general well - being and also makes provision for short duration of leanness.

(Chauliac, 1984)

Total oral intake of a substance that provides nourishment and supply.

(Nizel, 1989)

- **BALANCED DIET:**

Balanced diet is defined as a diet consisting of the adequate amounts of all the necessary nutrients recommended for a healthy growth and for efficient daily activities and functions.

(Nizel, 1989)

- **NUTRITION:**

The sum of processes concerned in the growth, maintenance and repair of living body as a whole or its constituent parts

(Oxford Dental Dictionary)

The science of food and its relationship to health. It is concerned primarily with the part played by the nutrient in body growth, development and maintenance.

(WHO, 1971)

The science which deals with the study of nutrients and foods and their effects on the nature and function of the organism under different conditions of age, health and disease

(Nizel, 1989)

The science of how the body utilizes food to meet the requirement for development, growth, repair and maintenance

(Romito LM, DCNA, 2003)

- **OVER NUTRITION:**

It is a form of malnutrition in which nutrients are over supplied relative to the amounts of required for normal growth, development and metabolism.

(WHO)

- **UNDER NUTRITION:**

It is a type of malnutrition caused by inadequate food intake or the body's inability to make use of needed nutrients.

(WHO)

- **RECOMMENDED DIETARY ALLOWANCE (RDA):**

The average daily dietary intake of a nutrient that is sufficient to meet type requirement of nearly all healthy people.

(WHO)

- **SPECIFIC DYNAMIC ACTION (SDA):**

Specific dynamic action (SDA) is the term used to describe the expenditure of calories during the digestion and absorption of food.

(WHO)

- **CALORIC VALUE OF FOOD:**

It is defined as the amount of heat energy obtained by burning 1.0 g of food stuff completely in the presence of oxygen.

(WHO)

- **BASAL METABOLISM:**

It is the minimum amount of energy needed to regulate and maintain the involuntary essential life processes, such as breathing, circulation of the blood cellular activity, keeping muscles in good tone and maintaining body temperature.

(Impact of Nutrition and Diet on oral Health, Ralph M.Duckworth, 2020)

- **BASAL METABOLIC RATE (BMR):**

The no of kilo calories expended by the organism per square meter of body surface per hour (kcal / (m²) / hr). The basal metabolism of a healthy men requires about 1600-1800 kilo calorie daily; basal expenditure of women is about 1200-1450 kcal.

(Impact of Nutrition and Diet on oral Health, Ralph M.Duckworth, 2020)

6. DENTAL ANATOMY AND HISTOLOGY

- **DENTAL ANATOMY:**

Dental anatomy is the study of the development, morphology, function and identity of each of the teeth in human dentitions as well as the way in which the teeth relate in shape, form, structure, color and function to the other teeth in the same dental arch and to the teeth in the opposing arch.

- **ANATOMIC CROWN:**

That portion of the tooth covered by enamel; the true crown.

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd edition, 2002)

- **CLINICAL CROWN:**

That portion of the crown exposed above the gingiva and visible in the oral cavity.

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd edition, 2002)

- **CEMENTOENAMEL JUNCTION:**

It is the junction where crown and root join

(Stanley J. Nelson 11th Edition, 2020)

- **ENAMEL:**

Enamel is a highly mineralized tissue covering the tooth crown, unique because it is totally acellular and is produced as a result of both the secretory and resorptive activity of epithelial cells.

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd edition, 2002)

- **DENTIN:**

Dentine is the mineralized tissue that forms the bulk of the tooth. In the crown it is covered by enamel, in the root by cementum

(B. K. B. Berkovitz 4th Edition 2009)

Dentin is primarily formed from the secretory products of the odontoblasts and their processes. It is the hard tissue that constitutes the body of each tooth, serving as both a protective covering for the pulp and as a support for the overlying enamel.

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd edition, 2002)

- **DENTAL PULP:**

Unmineralized oral tissue composed of soft connective tissue, vascular, lymphatic and nervous elements that occupies the central pulp cavity of each tooth.

(Stanley J. Nelson, 11th Edition 2020)

- **PULP-DENTIN COMPLEX:**

pulp has close relationship between its peripheral cells, the odontoblasts and dentin thereby making it a functional entity, sometimes referred to as the pulp dentin complex.

(Stanley J. Nelson, 11th Edition 2020)

- **CEMENTUM:**

Cementum is the thin layer of calcified tissue covering the dentine of the root

(B. K. B. Berkovitz 4th Edition 2009)

Cementum is a hard, avascular connective tissue that covers the roots of teeth

(Antonio Nanci Tencate's Oral Histology Development Structure and Function 8th Edition)

Cementum covers the roots of the teeth and serves as an attachment for the periodontal ligament fibres. It provides compensation for occlusal wear by apical deposition and, at the same time, protection for the sensitive dentin.

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd edition, 2002)

- **PERIODONTAL LIGAMENT:**

The periodontal ligament is the dense fibrous connective tissue that occupies the periodontal space between the root of the tooth and the alveolus.

(B. K. B. Berkovitz 4th Edition 2009)

The periodontium is defined as those tissues supporting and investing the tooth and consists of cementum, periodontal ligament (PDL), bone lining the alveolus (socket), and that part of the gingiva facing the tooth.

(Antonio Nanci, Tencate's Oral Histology Development Structure and Function 8th Edition)

- **ALVEOLAR BONE:**

The part of the maxilla or mandible that supports and protects the teeth is known as alveolar bone

(B. K. B. Berkovitz 4th Edition 2009)

The alveolar process is the bony extension of the mandible and maxilla that provides the necessary support for the teeth and serves as a fibrous attachment for the periodontal ligament fibers

(James K. Avery, Pauline F. Steele -Oral development and histology, 3rd Edition, 2002)

- **TEMPOROMANDIBULAR JOINT:**

The temporomandibular joint is the synovial articulation between the condyle of the mandible and the mandibular fossa of the temporal bone.

(B. K. B. Berkovitz 4th Edition 2009)

- **ALVEOLUS :**

The bony socket or the portion of the alveolar process in which the individual teeth is set.

(B. K. B. Berkovitz 4th Edition 2009)

CUSP:

An elevation or mound on the crown portion of a tooth making up a divisional part of the occlusal surface.

(Stanley J. Nelson, 11th Edition 2020)

- **TUBERCLE:**
Smaller elevation on some portion of crown produced by an extra formation of enamel.
(Stanley J. Nelson, 11th Edition, 2020)
- **CINGULUM:**
Lingual lobe of anterior tooth. It makes up the bulk of the cervical third of the lingual surface.
(Stanley J. Nelson, 11th Edition, 2020)
- **RIDGE:**
Any linear elevation on the surface of tooth and is named according to the location.
(Stanley J. Nelson, 11th Edition, 2020)
- **FOSSA:**
An irregular depression or concavity
(Stanley J. Nelson, 11th Edition, 2020)
- **SULCUS:**
Long depression or valley in the surface of tooth between ridges and cusps, the inclines of which meet an angle.
(Stanley J. Nelson, 11th Edition, 2020)
- **PITS:**
Small pinpoint depressions located at the junction of developmental grooves or at terminals of these grooves.
(Stanley J. Nelson, 11th Edition 2020)
- **LOBE:**
One of the primary sections of formation in the development of crown
(Stanley J. Nelson, 11th Edition, 2020)
- **MAMELON:**
Any one of the three rounded protuberances found on incisal ridges of newly erupted incisor teeth
(Stanley J. Nelson, 11th Edition, 2020)
- **AGNATHIA:**
Absence of mandible
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **MICROGNATHIA:**
Small jaw either maxilla or mandible
(Mc Donald and Avery, 10th Edition, 2016)
- **MACROGNATHIA:**
Condition of abnormally large jaws.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **AGLOSSIA:**
Absence of tongue
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)

- **MACROGLOSSIA:**
Large tongue than normal
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **MICROGLOSSIA:**
Small tongue than normal
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **MICRODONTIA:**
Teeth which are smaller than normal
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **MACRODONTIA:**
Teeth which are larger than normal
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **GEMINATION:**
Division of single tooth germ by an invagination
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **FUSION:**
Union of two normally separated tooth germs.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **CONCRESCENCE:**
Condition where teeth are united by cementum only.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **DILACERATION:**
Angulation, or sharp bend or curve in the root or crown of a formed tooth.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **TALONS CUSP:**
Anomalous structure projects lingually from cingulum areas of maxillary or mandibular permanent incisor.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)
- **ANODONTIA:**
Congenital absence of teeth.
(Shafer's Text book of Oral Pathology, 9th Edition, 2020)

7. DEVELOPMENTAL ASPECTS OF DENTITION

- **ERUPTION:**

Eruption is a process where-by the forming tooth migrates from its intraosseous location in the jaw to its functional position within the oral cavity.

(Massler & Schour, 1941)

Eruption is the movement of the teeth through the bone of the jaws and the overlying mucosa to appear and function in the oral cavity.

(James K Avery)

Eruption is defined as the axial movement of the tooth which brings the crown of the tooth from its developmental position within the bone of the jaw to its functional position in the occlusal plane.

(Osborne)

- **SHEDDING:**

The physiologic process resulting in the elimination of the deciduous dentition is called shedding or exfoliation.

(Massler & Schour, 1941)

- **TEETHING:**

Teething is the process by which an infant's first teeth sequentially appear through the gums.

(Mc Donald and Avery, 10th Edition, 2016)

- **TOOTH DEVELOPMENT (ODONTOGENESIS):**

Tooth development is the complex process by which teeth form, from the embryonic cells, grow and erupt into the oral cavity.

(Mc Donald and Avery, 10th Edition, 2016)

- **NATAL TEETH:**

Teeth that are present in the oral cavity at the time of birth.

(Massler and Savara, 1950)

- **NEONATAL TEETH:**

Teeth that appear in the oral cavity during first 30 days of life.

(Massler and Savara, 1950)

- **ECTOPIC ERUPTION:**

Ectopic eruption can be broadly defined as the emergence of a tooth in a site different from its normal location, in all three planes of spaces.

(Mc Donald and Avery, 10th Edition, 2016)

- **OCCLUSION:**
The static relationship between incising or masticating surfaces of the maxillary or mandibular teeth or tooth analogues.

(GPT 8)
- **ERUPTION CYST:**
Eruption cyst is defined as an odontogenic cyst that surrounds a tooth crown that has erupted through bone but not soft tissue and is clinically visible as a soft fluctuant mass on alveolar ridges.

(Mc Donald and Avery, 10th Edition, 2016)
- **ERUPTION SEQUESTRUM:**
Eruption sequestrum is a small spicule of non-vital bone may be seen radiographically or clinically overlying the crown of partially erupted permanent posterior tooth.

(Mc Donald and Avery, 10th Edition, 2016)
- **LEE WAY SPACE OF NANCE:**
The combined mesio-distal width of permanent canine and premolars is usually less than that of deciduous canines and molars.

(Mc Donald and Avery, 10th Edition, 2016)
- **INCISIAL LIABILITY:**
The difference of amount of space needed for accommodation of incisors & amount of space available for this is called incisal liability.

(Mc Donald and Avery, 10th Edition, 2016)

8. IMMUNOLOGY

- **IMMUNITY:**

The term immunity is defined as resistance exhibited by the host against any foreign antigen including microorganisms. This resistance plays a major role for prevention of infectious diseases.

(Roitt's essential immunology, 13th Edition, 2016)

- **INNATE IMMUNITY:**

It is the resistance which individual possesses by birth.

(Roitt's essential immunology, 13th Edition, 2016)

- **ACQUIRED IMMUNITY:**

The resistance acquired by an individual during life is known as acquired immunity.

(Roitt's essential immunology, 13th Edition, 2016)

- **ANTIGEN:**

An antigen is a substance which, when introduced into a body evokes immune response to produce a specific antibody with which it reacts in an observable manner.

(Roitt's essential immunology, 13th Edition, 2016)

- **HAPTENS:**

Haptens are substances unable to induce antibody formation on its own but can become immunogenic when covalently linked to protein, called carrier particles.

(Roitt's essential immunology, 13th Edition, 2016)

- **ANTIBODIES:**

Antibodies are substances which are formed in the serum and tissue fluids in response to an antigen and react with that antigen specifically and in some observable manner.

(Roitt's essential immunology, 13th Edition, 2016)

9. CHILD PSYCHOLOGY AND BEHAVIORAL PEDODONTICS

- **PSYCHOLOGY:**

It is the scientific study of the human mind and its functions, especially those affecting behavior in a given context.

(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

Is the science dealing with human mature function and phenomenon of his soul in the main.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **CHILD PSYCHOLOGY:**

It is the science or study of child's mind and how it functions It is also the science that deals with the mental power or an interaction between the conscious and subconscious elements in a child.

(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

Is the science that deals with the mental power or an interaction through the conscious and subconscious element in a child.

(Text book of Pediatric Dentistry, Nikhil Marwah 4th edition, 2019)

EMOTIONAL DEVELOPMENT

- **EMOTION:**

An effective state of consciousness in which feelings like joy, sorrow, fear, or hate are expressed. A feeling or mood manifesting in motor or glandular activity.

(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

Defined as an expression of readiness to establish, maintain or change one's relation to the environment on a matter of personal importance.

(Text book of Pediatric Dentistry, Nikhil Marwah 4th edition, 2019)

- **SHYNESS:**

It is a form of fear characterized by shrinking from contact with others who are strange and unfamiliar.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **EMBARRASSMENT:**

Like shyness, embarrassment is a fear reaction to people, not to objects or situations.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **WORRY:**

It is usually described as “imaginary fear” or “borrowing trouble”.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **ANGER:**
Outburst of emotion is caused by child's lack of skill in handling situation.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **FEAR:**
The unpleasant emotional state consisting of psychological and psycho physiological responses to a real external threat or danger including agitation, alertness, tension and mobilization of the alarmed reaction.
(Dorland Medical Dictionary)

It is defined as a painful feeling of impending danger, evil, trouble, etc.
(Delbridge)

Defined as a reaction to a known danger.
(Rubin)

- **OBJECTIVE FEAR OR "REAL" FEAR:**
Objective fears are those produced by direct physical stimulation of the sense organs and are generally not of parental origin
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **SUBJECTIVE FEAR OR "IMAGINED FEAR":**
Subjective fears are those based on feelings and attitudes that have been suggested to the child by others about him without the child's having had the experience personally.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **ANXIETY:**
Emotion similar to fear, but arising without any objective source of danger
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

Anxiety is an uneasy mental state concerning impending or anticipated ill.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **DENTAL ANXIETY:**
Denotes a state of apprehension that something dreadful is going to happen in relation to dental treatment and it is coupled with a sense of losing control
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **PHOBIA:**
It is irrational fear resulting in conscious avoidance of a specific feared object, activity or situation.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **DENTAL PHOBIA:**
 It represents a severe type of dental anxiety and is characterized by marked and persistent anxiety in relation either to clearly discernible situations/objects (e.g. drilling, injections) or to the dental situation in general.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **PHYSIOLOGIC NEEDS:**
 These are basic needs, such as food and water along with air, sleep, clothing, etc. and must be satisfied before other needs.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **SAFETY NEEDS:**
 Both physical and psychological safety is necessary to meet these needs.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **LOVE AND BELONGING NEEDS:**
 These needs are also termed as social needs that include affection, acceptance and inclusion in integrated groups, the need for affection from parents, peers and other loved ones.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **ESTEEM NEEDS:**
 This includes self-respect and self-esteem which are the needs to be respected; to have self-respect, and to respect others.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **SELF-ACTUALIZATION NEEDS:**
 Maslow considered that a very small group of people reach a level called self-actualization, where all of their needs are met.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **ID:**
 It is the most primitive part of a personality. It is the basic structure of personality, which serves as a reservoir of instincts.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **SUPEREGO:**
 That part of personality that is internalized representation of the values and morals of society as taught to the child by parents and others.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **EGO:**
 It is the part of self that is concerned with overall functioning and organization of personality through its capacity to test reality and utilization of ego defense mechanism and other functions like memory, language and creativity.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **CONSCIENCE:**

It contains moral prohibitions against certain behaviors, especially those expressing the sexual and aggressive drives of the id.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

BEHAVIOUR MANAGEMENT:

- **BEHAVIOUR:**

It is any activity that can be observed, recorded and measured. It is an observable act or any change in the functioning of an organism.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **BEHAVIOUR MANAGEMENT:**

The means by which dental health team effectively and efficiently performs treatment for a child and simultaneously instills a positive dental attitude in the child

(G.Z Wright, 1975)

- **BEHAVIOURAL GUIDANCE:**

It is a continuum of interaction involving the dentist, the dental team, the patient and the parent directed towards communication and education ‘which ultimately builds trust and allays fear and anxiety’.

(G.Z Wright, 1975)

- **BEHAVIOURAL SCIENCE:**

It is the science, which deals with the observation of behavioural habits of man and lower animals in various physical and social environmental, including behaviour pedodontics, psychology, sociology social anthropology.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **BEHAVIOURAL PEDODONTICS:**

It is a study of science, which helps to understand development of fear, anxiety and anger as it applied to child in the dental situations.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **BEHAVIOUR SHAPING:**

It is the procedure, which slowly develops behavior by reinforcing a successive approximation of the desired behavior until the desired behaviour comes into being. e.g. desensitization, tell show do, modelling, distraction, contingency management.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **BEHAVIOR SUPPORT:**

Is used to describe a collaborative philosophy that is person-centred in that it considers the individual, evaluates their environment and support sources and attempts to plan how challenging behaviour can best be moderated.

(Governor’s commission on mental retardation. The Commonwealth of Massachusetts. 2008.)

- **BEHAVIOUR MODIFICATION:**

It is defined as the attempt to alter human behaviour and emotion in a beneficial manner according to the laws of modern learning theory.

(Eysenck, 1964).

It is defined as a process which slowly develops a behaviour by reinforcing successive approximations of the desired behaviour until the desired behaviour is expressed

(Lenchner and Wright, 1975)

NON-PHARMACOLOGICAL PATIENT MANAGEMENT

- **MODELLING:**

It is based on the psychologic principle that much of one's learning or behaviour acquisition occurs through observation of a suitable model performing a specific behaviour.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **ACQUISITION:**

Learning a new response or forming a new response tendency due to conditioning.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **GENERALIZATION:**

Stimuli similar to the original conditioned stimulus also evoke a conditioned response.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **DISCRIMINATION:**

Learning to discriminate or learning to respond to only certain stimuli but not to respond to others.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **EXTINCTION:**

The conditioned response gradually disappears when the unconditioned stimulus is removed.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **SPONTANEOUS RECOVERY:**

The reappearance of an extinguished response after a period of non-exposure to the extinguished stimulus.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **POSITIVE REINFORCEMENT:**

It is the presentation of the pleasant stimulus and is done to appreciate the child for the good behavior. Either of the above reinforcers can be used

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **NEGATIVE REINFORCEMENT:**

It involves the withdrawal of an unpleasant stimulus after a response.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **TIME-OUT (OR) OMISSION:**

Involves removal of a pleasant stimulus after a particular response.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **PUNISHMENT:**

It is the presentation of the unpleasant stimulus to the child, e.g. voice control, hand over mouth exercise (HOME).

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

- **EXTERNALIZATION:**
It is a process by which child's attention is focused away from the sensation associated with dental treatment by involving in verbal or dental activity.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **RETRAINING:**
A technique similar to behavior shaping, designed to fabricate positive values and to replace the negative behavior.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **REFRAMING:**
Reframing is defined as, "taking a situation outside the frame that up to that moment contained the individual in different conditions and visualize (reframe) it in a way acceptable to the person involved and with this reframing, both the original threat and the threatened "solution" can be safely abandoned."
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **DISTRACTION:**
It is the technique of diverting the child patient's attention from what may be perceived as an unpleasant procedure.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

PHARMACOLOGICAL PATIENT MANAGEMENT

- **SEDATIVE:**
A drug that subdues excitement and calms the subject without inducing sleep, though drowsiness may be produced.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SEDATION:**
It refers to decreased responsiveness to any level of stimulation; is associated with some decrease in motor activity and ideation.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **CONSCIOUS SEDATION:**
A minimally depressed level of consciousness that retains the patient's ability to independently and continuously maintain an airway and respond appropriately to physical stimulation or verbal command and that is produced by a pharmacological or nonpharmacological method or a combination thereof.
(ADA, 1993)
- **MINIMAL SEDATION (ANXIOLYSIS):**
A drug induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected.
(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)
- **PROCEDURAL SEDATION:**
It is defined as "a technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardiorespiratory function.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **DISSOCIATIVE ANESTHESIA:**

A form of general anesthesia characterized by catalepsy, catatonia and amnesia, but not necessarily involving complete unconsciousness, as that produced by general anesthesia.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **GENERAL ANAESTHESIA:**

A controlled state of unconsciousness, accompanied by partial or complete loss of protective reflexes, including inability to maintain an airway independently and respond purposefully to physical stimulation and verbal command.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

A drug induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug induced depression of neuromuscular function. Cardiovascular function may be impaired.

(Text book of Pediatric Dentistry, Nikhil Marwah, 4th edition, 2019)

10.CHILD ABUSE AND NEGLECT

- **CHILD ABUSE:**

It is defined as the ‘nonaccidental physical injury, minimal or fatal, inflicted upon children by persons caring for them’. It is an overt act of commission of a caretaker—physical, emotional or sexual.

(Gill, 1968)

It is defined as the non-accidental physical injury, minimal or fatal, inflicted upon children by persons caring for them

(Selwyn et al, 1985)

- **BATTERED BABY:**

It is a child who shows clinical or radio graphic evidence of lesions that are frequently multiple and involve mainly the head, soft tissue, long bones. thoracic cage and that cannot be unequivocally explained.

(Selwyn, 1985)

- **NEGLECTED CHILD:**

It is one who shows evidence of physical or mental ill-health primarily due to failure on the part of the parent or caretakers to provide adequately for the child's needs.

(McDonald and Avery, 10th Edition, 2016)

- **PERSECUTED CHILD:**

It is one who shows evidence of mental ill-health caused by a deliberate infliction of physical or psychological injury that is often continuous in nature.

(McDonald and Avery, 10th Edition, 2016)

- **DENTAL NEGLECT:**

The failure by a parent or guardian to seek treatment for visually untreated caries, oral infections and/ or oral pain, or, failure of the parent or guardian to follow through with treatment once informed that the above condition(s) exists.

(McDonald and Avery, 10th Edition, 2016)

11. DENTAL CARIES

- **CARIES:**

Caries is defined as a process of enamel dentin dissolution that is caused by microbial action the tooth surface and is mediated by physiochemical flow of water dissolved ions.

(Ostrom, 1980)

“Dental caries is defined as a pathological process of localized destruction of tooth tissues by microorganisms.”

(Ernest Newbrun, 1989)

Caries is essentially a progressive loss by acid dissolution of the apatite (mineral) component of the enamel then the dentin or of the cementum then dentin.

(Hume,1993)

“Dental caries is an irreversible microbial disease of the calcified tissues of the teeth, characterized by demineralization of the inorganic portion and destruction of the organic substance of the tooth, which often leads to cavitation.”

(Shafer, 1993)

“Dental caries is a biofilm mediated, diet modulated, multi-factorial, non-communicable, dynamic disease resulting in net mineral loss of dental hard tissues.”

(Pitts et al, 2017)

- **EARLY CHILDHOOD CARIES:**

Complex disease involving maxillary primary incisors within a month after eruption and spreading rapidly to other primary teeth is called childhood caries.

(Davies, 1998)

Early childhood caries (ECC) is defined as occurrence of any sign of dental caries on the tooth surface during first 3 years of life.

(Abid Ismail, 1998)

ECC is defined as "the presence of one or more decayed (non-restorated or restorated lesions), missing teeth (due to caries) or filled tooth surfaces in any primary tooth in a child under the age of six". In children younger than 3 years of age, any sign of smooth surface caries is indicative of severe early childhood caries (S-ECC). From ages 3 through 5, one or more restorated, missing teeth (due to caries), or filled smooth surfaces in primary maxillary anterior teeth, or decayed, missing or filled score of 4 (age 3), 25 (age 4) or 26 (age 5) surfaces constitutes S-ECC.

(AAPD, 2014)

- **RAMPANT CARIES:**

Rampant caries is defined as suddenly appearing widespread, rapidly spreading, burrowing type of caries, resulting in early involvement of pulp and affecting those teeth, which are usually regarded as immune to decay.

(Massler, 1945)

Rampant caries is defined as caries of acute onset involving many or all the teeth in areas that are usually not susceptible. They further defined the condition to be associated with rapid destruction of crowns with frequent involvement of dental pulp.

(Winter et al, 1966)

- **NURSING CARIES:**
It is defined as a unique pattern of dental decay in young children us prolonged nursing habit.
(Winter et al, 1966)
- **NURSING BOTTLE MOUTH:**
It is defined as a syndrome characterized by a severe caries pattern beginning with the maxillary anterior teeth in a healthy bottle fed infant or toddler.
(Kroll et al, 1967)
- **NURSING BOTTLE SYNDROME/ COMFORTER CARIES:**
It is defined as a devastating condition that may render young children dentally crippled.
(Shelton et al, 1977)
- **NIGHT BOTTLE SYNDROME:**
It is defined as a unique pattern of dental caries in young children.
(Dilley et al, 1980)
- **BABY BOTTLE MOUTH/ NURSING MOUTH DECAY:**
It is defined as a very destructive carious process, which can affect infants and toddlers.
(Croll, 1984)
- **NURSING BOTTLE CARIES:**
It is defined as a caries caused by a prolonged use of bottle filled with any liquid other than the water.
(Tsamstouris, 1986)
- **BABY BOTTLE TOOTH DECAY:**
It is defined as a caries caused by bottle feeding only, not by breast feeding.
(Mim Kelly et al, 1987)
- **MILK BOTTLE SYNDROME:**
It is defined as a specific form of rampant decay of the primary teeth of infants.
(Ripa et al, 1988)
- **INCIPIENT CARIES:**
The early caries lesion, best seen on the smooth surface of teeth, is visible as a “White spot”.
(Dental Caries, Vimal K Sikri, 2017)
- **PRIMARY CARIES:**
A primary caries is one in which the lesion constitutes the initial attack on the tooth surface.
(Dental Caries, Vimal K Sikri, 2017)
- **SECONDARY CARIES:**
Secondary or recurrent caries are the type of caries observed around the margins and under the restorations.
(Dental Caries, Vimal K Sikri, 2017)
- **ARRESTED CARIES:**
Caries which becomes stationary or static and doesnot show any tendency for further progression.
(Dental Caries, Vimal K Sikri, 2017)

- **RISK FACTOR:**
 Risk factor is defined as factor which plays an essential role in the etiology and occurrence of the disease, like the lifestyle and biochemical determinants to which the tooth is directly exposed and which contribute to the development or progression of the lesion (plaque, saliva, diet, etc.).
(Dental Caries, Vimal K Sikri, 2017)
- **RISK INDICATOR**
 Risk indicator is a factor or circumstance that is indirectly associated with the disease like socioeconomic factors and epidemiologic factors.
(Dental Caries, Vimal K Sikri, 2017)
- **CARIES RISK ASSESSMENT:**
 It is the determination of the likelihood of the incidence of caries (i.e., the number of new cavitated or incipient lesions) during a certain time period or the likelihood that there will be a change in the size or activity of lesions already present. With the ability to detect caries in its earliest stages (i.e., white spot lesions). health care providers can help prevent cavitation
(Vadiakas, 2008)
- **CARIES ACTIVITY:**
 It is defined as the sum of new carious lesions and the enlargement of existing cavities during a certain time period. It suggests the number of lesions that an individual has at the time of recording (new and old).
(Dental Caries, Vimal K Sikri, 2017)
- **CARIES ACTIVITY TEST:**
 Caries activity test are defined as tests that estimate the actual state of disease activity (progression/regression).
(Dental Caries, Vimal K Sikri, 2017)
- **CARIES SUSCEPTIBILITY:**
 Caries susceptibility is an inherent property of the host tooth to be affected by carious process. It refers to the number of new lesions that may develop in an individual over a period of time.
(Dental Caries, Vimal K Sikri, 2017)
- **WINDOW OF INFECTIVITY:**
 S. mutans are from mothers to their infants during a discrete window of infectivity. This period is believed to be during the time that teeth are erupting, from seven or eight months until 36 months, with the median age being 36 months.
(Caufield, cutter & Dasanayake,1993; Li & Caufield, 1995)

12. PAEDIATRIC RESTORATIVE DENTISTRY

- **OPERATIVE DENTISTRY:**

Operative dentistry is the art and science of the diagnosis, treatment and prognosis of defects of teeth do not require full coverage restorations for correction. Such treatment should result in the restoration of proper tooth form, function and aesthetics while maintaining the physiologic integrity of the teeth in harmonious relationship with the adjacent hard and soft tissues, all of which should enhance the general health and welfare of the patient.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **TOOTH PREPARATION:**

Tooth preparation is defined as the mechanical alteration of a defective, injured or diseased tooth such that placement of restorative material reestablishes normal form including esthetic corrections, where indicated.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **INTERNAL WALL:**

An internal wall is a prepared surface that does not extend to the external tooth surface.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **AXIAL WALL:**

The axial wall is an internal wall that is oriented parallel to the long axis of the tooth.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **PULPAL WALL:**

The pulpal wall is an internal wall that is oriented perpendicular to the long axis of the tooth and is located occlusal to the pulp.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **EXTERNAL WALL:**

An external wall is a prepared surface that extends to the external tooth surface.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **ENAMEL WALL:**

The enamel wall is that portion of a prepared external wall consisting of enamel.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **DENTINAL WALL:**

The dentinal wall is that portion of a prepared external wall consisting of dentin, in which mechanical retention features may be located.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **LINE ANGLE:**

A line angle is the junction of two planar surfaces of different orientation along a line.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **INTERNAL LINE ANGLE:**

An internal line angle is the line angle whose apex points into the tooth.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **EXTERNAL LINE ANGLE:**

The external line angle is the line angle whose apex points away from the tooth.

(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **POINT ANGLE:**
The point angle is the junction of three planar surfaces of different orientation.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **CAVOSURFACE ANGLE:**
The Cavo surface angle is the angle of tooth structure formed by the junction of a prepared wall and the external surface of the tooth. The junction is referred to as Cavo surface margin.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **OUTLINE FORM:**
Placing the preparation margin in such a way that they will occupy in final preparation
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **PRIMARY RESISTANCE FORM:**
Primary resistance form may be defined as the shape and placement of the preparation walls that enable the remaining tooth structure, as well as the anticipated restoration, to withstand masticatory forces primarily oriented parallel to the long axis of the tooth.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **PRIMARY RETENTION FORM:**
Primary retention form is the shape or form of the preparation that prevents displacement or removal of the restoration by tipping or lifting forces.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **CONVENIENCE FORM:**
Convenience form is the shape or form that provides adequate observation, accessibility and ease in the preparation and restoration of the tooth.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
 - **LINERS:**
Liners are relatively thin-film materials that are used to cover deep dentin in order to limit dentinal tubular fluid flow, and to create a protective thermal/physical barrier.
(Phillips' science of dental materials, 2013)
 - **BASES:**
The term base is used to describe the placement of materials, used in thicker dimensions, beneath permanent restorations to provide for mechanical, chemical and thermal protection of the pulp.
(Phillips' science of dental materials, 2013)
- CAVITY VARNISH:**
A varnish is a natural gum or a synthetic resin dissolved in an organic solvent, like acetone, chloroform or ether.
(Phillips' science of dental materials, 2013)
- **MATRIX:**
Matrix is a device used during restorative procedures to hold the plastic restorative material within the tooth while it is setting.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)

- **MATRICING:**
Matricing is the procedure whereby a temporary wall is created opposite to axial walls, surrounding areas of the tooth structure that were lost during the cavity preparation
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
- **WEDGES:**
Wedges are devices that create rapid separation during tooth preparation and restoration.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
- **INLAY:**
A fixed intracoronal restoration; a dental restoration made outside of a tooth to correspond to the form of the prepared cavity, which is then luted into the tooth.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
- **ONLAY:**
A restoration that restores one or more cusps and adjoining occlusal surfaces or the entire occlusal surface and is retained by mechanical or adhesive means.
(Sturdevant's Art and Science of operative dentistry 7th edition, 2018)
- **PIT AND FISSURE SEALANT:**
It is defined as a material that is introduced in occlusal pits and fissures of caries susceptible teeth, thus forming a micro- mechanically bonded, protective layer cutting access of caries- producing bacteria from their source of nutrition.
(Simonsen RJ, 1978)
- It is a material that is placed in the pits and fissures of teeth in order to prevent or arrest the development of dental caries.
(R Welbury, M Raadal, N Lygidaks, EAPD Policy Document, 2003)
- **PREVENTIVE RESIN RESTORATION (PRR):**
A Preventive resin restoration integrates the preventive approach of the sealant therapy for caries susceptible pits and fissures with therapeutic restoration of incipient caries with composite resin that occurs on the same occlusal table.
(Phillips' science of dental materials, 12th Edition, 2012)
- **AMALGAM:**
An amalgam is an alloy that contains mercury as one of its constituents
(Phillips' science of dental materials, 12th Edition, 2012).
- **DENTAL AMALGAM:**
An alloy of mercury, silver, copper and tin which may also contain palladium, zinc and other elements to improve handling characteristics and clinical performance.
(Phillips' science of dental materials, 12th Edition, 2012)
- **AMALGAMATION:**
The process of mixing liquid mercury with one or metals or alloys to form an amalgam.
(Phillips' science of dental materials, 12th Edition, 2012)
- **TRITURATION:**
Trituration is the process by which mercury is allowed to react with the alloy powder. This procedure allows the rubbing of the surface oxide on amalgam particles, exposing an active surface to react with mercury.
(Phillips' science of dental materials, 12th Edition, 2012)

- **MULLING:**
Mulling is continuation of trituration, it is done to improve homogeneity of mix.
(Phillips' science of dental materials, 12th Edition, 2012)
- **CONDENSATION:**
Condensation is a process of inserting a plastic mass of amalgam into a prepared cavity by force under pressure.
(Phillips' science of dental materials, 12th Edition, 2012)
- **COMPOSITE:**
Composite refers to a solid formed from two or more distinct phases that have been combined to produce properties superior to or intermediate to those of individual constituents.
(Phillips' science of dental materials, 12th Edition, 2012)
- **DENTAL COMPOSITE RESIN:**
A highly cross-linked polymeric material reinforced by a dispersion of amorphous silica, glass, crystalline or organic resin filler particles and/or short fibers bonded to the matrix by a coupling agent.
(Phillips' science of dental materials, 12th Edition, 2012)
- **HYBRID LAYER:**
The structure formed in the dental hard tissue by demineralization of the surface and the sub-surface followed by infiltration of monomers and subsequent polymerization.
(Phillips' science of dental materials, 12th Edition, 2012)
- **SMEAR LAYER:**
An amorphous, relatively smooth layer of microcrystalline debris whose featureless surface cannot be seen with the naked eye.
(Phillips' science of dental materials, 12th Edition, 2012)
- **CEMENT:**
A cement is a substance that hardens to act as a base, liner, filling material or adhesive to bind devices or prosthesis to the tooth structure or to each other.
(Phillips' science of dental materials, 12th Edition, 2012)
- **GLASS IONOMER CEMENT:**
Glass ionomer is the generic name of a group of materials that use silicate glass powder and aqueous solution of polyacrylic acid.
(Phillips' science of dental materials, 12th Edition, 2012)
- **ATRAUMATIC RESTORATIVE TREATMENT:**
Atraumatic restorative treatment is a dental caries treatment procedure involving the removal of soft, demineralized tooth tissue using hand instrument alone, followed by restoration of the tooth with an adhesive restorative material, routinely glass ionomer.
(Phillips' science of dental materials, 12th Edition, 2012)
- **ACID-BASE REACTION:**
Chemical reaction between a compound with replaceable hydrogen ions (acid) and a substance with replaceable hydroxide ions (base) that yields a salt and water; for aqueous cements, the liquid is an acid and the powder is a base.
(Phillips' science of dental materials, 12th Edition, 2012)

- **SANDWICH TECHNIQUE:**
Technique of placing glass ionomer as an intermediate layer between the tooth structure and a resin-based composite restorative material; this restoration design combines the adhesion and fluoride-releasing nature of a glass ionomer cement with the esthetic quality and durability of a resin-based composite.
(Phillips' science of dental materials, 12th Edition, 2012)

13. MECHANICAL PROPERTIES OF DENTAL MATERIALS

- **MECHANICAL PROPERTIES:**
Mechanical properties are defined by law of mechanics that is the physical science dealing with forces that acts on bodies and the resultant motion, deformation, or stress that those bodies experience.
(Philip's science of dental materials, 12th Edition, 2012)
- **BIOCOMPATIBILITY:**
Biocompatibility is formally defined as the ability of a material to elicit an appropriate biological response in a given application in the body.
(Craig)
- **STRESS:**
When a force acts on body, tending to produce deformation, a resistance is developed within the body to tis external force. The internal resistance of the body to the external force is called stress.
(Philip's science of dental materials, 12th Edition, 2012)
- **STRESS CONCENTRATION:**
Area or point of significantly higher stress that occurs because of a structural discontinuity such as a crack or pore or a marked change in dimension.
(Philip's science of dental materials, 12th Edition, 2012)
- **STRAIN:**
Strain is expressed as change in length per unit length of the body when a stress is applied.
(Philip's science of dental materials, 12th Edition, 2012)
- **ELASTIC STRAIN:**
Amount of deformation that is recovered instantaneously when an externally applied force or pressure is reduced or eliminated.
(Philip's science of dental materials, 12th Edition, 2012)
- **PROPORTIONAL LIMIT:**
The greatest stress that may be produced in a material such that the stress is directly proportional to strain.
(Philip's science of dental materials, 12th Edition, 2012)

- **PERMANENT DEFORMATION:**
Once the elastic limit of the material is crossed by a specific amount of stress, the further increase in strain is called permanent deformation.
(Philip's science of dental materials, 12th Edition, 2012)
- **MODULUS OF ELASTICITY:**
It represents the relative stiffness or rigidity of the material within the elastic range.
(Philip's science of dental materials, 12th Edition, 2012)
- **YEILD STRENGTH:**
The stress at which a material exhibits a specified limiting deviation from proportionality of stress to strain.
(Philip's science of dental materials, 12th Edition, 2012)
- **ELASTIC LIMIT:**
Elastic limit is the maximum stress that a material will withstand without permanent deformation.
(Philip's science of dental materials, 12th Edition, 2012)
- **PERCENTAGE ELONGATION:**
Amount of plastic strain, expressed as a percent of the original length, which tensile test specimen sustains at the point of fracture.
(Philip's science of dental materials, 12th Edition, 2012)
- **STRENGTH:**
Strength of a material is defined as the average level of stress at which a material exhibits a certain amount of plastic deformation or at which fracture occurs in several test specimens of the same shape and size.
(Philip's science of dental materials, 12th Edition, 2012)
- **TENSILE STRENGTH:**
Tensile strength is defined as the maximum stress that a material can withstand before fracture in tension.
(Philip's science of dental materials, 12th Edition, 2012)
- **COMPRESSIVE STRENGTH:**
Compressive strength is defined as the maximum compressive load a body can bear prior to failure, divided by its cross-sectional area.
(Philip's science of dental materials, 12th Edition, 2012)
- **FLEXURAL STRENGTH:**
It is the strength which resist bending, which involves complex stress and strains as seen in objects supported only at the ends.
(Philip's science of dental materials, 12th Edition, 2012)
- **ULTIMATE STRENGTH:**
Ultimate strength is the point at which at which the material breaks.
(Philip's science of dental materials, 12th Edition, 2012)
- **FATIGUE STRENGTH:**
It is the strength which resist repeated stresses falling on it over and over again.
(Philip's science of dental materials, 12th Edition, 2012)
- **DUCTILITY:**
Ductility represents the ability of a material to sustain a large permanent deformation under a tensile load up to the point of fracture.
(Philip's science of dental materials, 12th Edition, 2012)

- **MALLEABILITY:**
 Malleability is the ability of a material to sustain considerable permanent deformation without rupture under compression.
(Philip's science of dental materials, 12th Edition, 2012)
- **TOUGHNESS:**
 Toughness is defined as the amount of elastic and plastic deformation energy required to fracture a material.
(Philip's science of dental materials, 12th Edition, 2012)
- **FRACTURE TOUGHNESS:**
 Fracture toughness is a mechanical property that describes the resistance of brittle materials to the catastrophic propagation of flaws under an applied stress.
(Philip's science of dental materials, 12th Edition, 2012)
- **BRITTLINESS:**
 Brittleness is the relative inability of a material to sustain plastic deformation before fracture of a material occurs.
(Philip's science of dental materials, 12th Edition, 2012)
- **FLOW:**
 Flow is the deformation under static load before the material has completely hardened.
(Philip's science of dental materials, 12th Edition, 2012)
- **RESILIENCE:**
 The amount of elastic energy per unit volume that is sustained on loading and released upon unloading of a test specimen.
(Philip's science of dental materials, 12th Edition, 2012)
- **HARDNESS:**
 Resistance of a material to plastic deformation, which is typically produced by an indentation force.
(Philip's science of dental materials, 12th Edition, 2012)

14. PAEDIATRIC ENDODONTICS

- **ENDODONTICS:**

The branch of dentistry concerned with the morphology, physiology and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic and clinical sciences including the biology of the normal pulp and the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular conditions.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **ASYMPTOMATIC IRREVERSIBLE PULPITIS:**

A clinical diagnosis based on subjective and objective findings indicating that the vital inflamed pulp is incapable of healing. Additional descriptors: no clinical symptoms but inflammation produced by caries, caries excavation, trauma.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **CHRONIC HYPERPLASTIC PULPITIS (PULP POLYP):**

A form of chronic pulpal inflammation usually following carious or traumatic exposure; characterized by proliferation of dental pulp tissue from the exposed pulp chamber, filling the cavity with a pedunculated or sessile, pinkish-red, fleshy mass; usually covered with epithelium.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **REVERSIBLE PULPITIS:**

A clinical diagnosis based on subjective and objective findings indicating that the inflammation should resolve and the pulp return to normal.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **SYMPTOMATIC IRREVERSIBLE PULPITIS**

A clinical diagnosis based on subjective and objective findings indicating that the vital inflamed pulp is incapable of healing. Additional descriptors: lingering thermal pain, spontaneous pain, referred pain.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **PULP PROTECTION:**

Pulp protection is the term coined by which recommends the placement of a protective base or a liner on the pulpal and axial walls of cavity preparation to act as a protective barrier between the restorative material and the tooth.

(AAPD, 2014)

- **PULP CAPPING:**

Treatment of an exposed vital pulp by sealing the pulpal wound with a dental material such as calcium hydroxide or mineral trioxide aggregate to facilitate the formation of reparative dentin and maintenance of a vital pulp

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **INDIRECT PULP CAPPING THERAPY:**

Indirect pulp capping is defined as a procedure wherein small amount of carious dentin is retained in deep areas of cavity to avoid exposure of pulp, followed by placement of a suitable medicament and restorative material that seals off the carious dentin and encourages pulp recovery.

(Ingle, 1985)

A procedure in which only the gross caries is removed from the lesion and the cavity is sealed for a time with a biocompatible material.

(Mc Donald)

A procedure in which a material is placed on a thin partition of remaining carious dentin that, if removed, might expose the pulp in immature permanent teeth.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **DIRECT PULP CAPPING:**

Direct pulp capping is defined as a procedure in which the exposed vital pulp is covered with a protective dressing or base placed directly over the site of exposure in an attempt to preserve pulpal vitality.

(Glossary of Endodontic Terms Tenth Edition, 2020)

A dental material placed directly on a mechanical or traumatic vital pulp exposure.

(Glossary of Endodontic Terms Tenth Edition, 2020)

It is defined as the placement of a medicament or nonmedicated material on a pulp that has been exposed in course of excavating the last portions of deep dentinal caries or as a result of trauma

(Kopel, 1992)

- **PULPOTOMY:**

Pulpotomy can be defined as complete removal of coronal portion of dental pulp, followed by placement of a suitable dressing or medicament that will promote healing and preserve vitality of the tooth

(Finn, 1959)

American Academy of Pediatric Dentistry defined pulpotomy as the amputation of affected, infected coronal portion of the dental pulp preserving the vitality and function of the remaining part of radicular pulp.

(AAPD, 1998)

Pulpotomy is defined as a procedure in which a portion of the exposed coronal vital pulp is surgically removed as a means of preserving the vitality and function of the remaining radicular portion.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **APEXOGENESIS:**

A vital pulp therapy procedure performed to encourage continued physiological development and formation of the root end; frequently used to describe vital pulp therapy performed to encourage the continuation of this process.

(Glossary of Endodontic Terms Tenth Edition, 2020)

- **APEXIFICATION:**

A method to induce a calcified barrier in a root with an open apex or the continued apical development of an incompletely formed root in teeth with necrotic pulps.

(Glossary of Endodontic Terms Tenth Edition, 2020)

Apexification is defined as a method to induce a calcific barrier across an open apex of an immature, pulpless tooth.

(Grossman's endodontic practice 14th edition 2021)

Apexification is defined as a method to induce development of the root apex of an immature pulpless tooth by formation of osteo cementum/bone-like tissue.

(Cohen)

Apexification is a method of inducing apical closure through the formation of mineralized tissue in the apical pulp region of a nonvital tooth with an incompletely formed root and an open apex

(Morse et al,1990)

- **PULPECTOMY:**

It is defined as the complete removal of the necrotic pulp from the root canals of primary teeth and filling them with an inert resorbable material so as to maintain the tooth in the dental arch.

(Mathewson, 1995)

Pulpectomy is defined as removal of all pulpal tissue from the coronal and radicular portions of the tooth.

(Finn)

Root canal procedure for pulp tissue that is irreversibly inflamed or necrotic due to caries or trauma. The root canals are debrided, and shaped with hand or rotary files and then irrigated.

(AAPD, 2020)

- **APEXOGENESIS:**

It is defined as a vital pulp therapy procedure performed to encourage continued physiological development and formation of the root end; frequently used to describe vital pulp therapy performed to encourage the continuation of this process.

(Glossary of Endodontic Terms, Tenth Edition, 2020)

- **APEXIFICATION:**

It is defined as a method to induce development of the root apex of an immature pulpless tooth by formation of osteo cementum/bone-like tissue.

(Cohen)

Apexification is a method of inducing apical closure through the formation of mineralized tissue in the apical pulp region of a nonvital tooth with an incompletely formed root and an open apex

(Morse et al,1990)

- **LASER:**

A device that emits light through a process of optical amplification based on the stimulated emission of electromagnetic radiation.

(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

15. ORAL HABITS

- **THUMB SUCKING:**

Thumb sucking is defined as the placement of the thumb in varying depths into the mouth

(Subtelny, 1973)

- **TONGUE THRUSTING:**

Defined tongue thrust as the forward movement of the tongue tip between the teeth to meet the lower lip during deglutition and in sounds of speech, so that the tongue lies interdentially

(Tulley, 1969)

- **MOUTH BREATHING:**

Mouth breathing is defined as habitual respiration through the mouth instead of nose

(Sassouni, 1971)

- **BRUXISM:**

Bruxism is defined as the habitual grinding of teeth when an individual is not chewing or swallowing.

(Ramfjord, 1966)

16. PEDIATRIC ORTHODONTICS

- **PREVENTIVE ORTHODONTICS:**

Preventive orthodontics can be defined as the action taken to preserve the integrity of what appears to be normal occlusion at a specific time.

(Graber, 1966)

Preventive orthodontics is defined as the prevention of potential interference with occlusal development.

(Proffit and Ackerman, 1980)

- **INTERCEPTIVE ORTHODONTICS:**

That phase of the science and art of orthodontics employed to recognize and eliminate potential irregularities and malpositions in the developing dentofacial complex.

(American Association of Orthodontists)

Interceptive orthodontics refers to the Measures undertaken to intercept a malocclusion that has already developed or is developing, and the goal is to restore a normal function.

(Graber,1972)

Interceptive orthodontics can be defined as elimination of existing interferences with the key factors involved in the development of the dentition.

(Ackerman and Proffit,1980)

- **SERIAL EXTRACTION:**

Serial extraction is a process of extracting certain deciduous teeth and later specific permanent teeth in an orderly sequence and predetermined pattern to guide the erupting permanent teeth into a more favourable position.

(Kjellgren,1929)

- **SPACE MAINTENANCE:**

This term was coined by JC Brauer in 1941. It is defined as the process of maintaining a space in a given arch previously occupied by a tooth or a group of teeth.

(JC Brauer,1941)

- **SPACE CONTROL:**

Space Control is defined it as careful supervision of the developing dentition; it reflects an understanding of the dynamic nature of occlusal development.

(Gainsforth,1955)

- **SPACE MAINTAINER:**

Space Maintainer is a fixed or removable appliance designed to preserve the space created by the premature loss of a primary tooth or a group of teeth.

(Boucher)

- **MYOFUNCTIONAL APPLIANCE:**

A myofunctional appliance is defined as an appliance that harnesses the natural forces of the oro-facial musculature and transmits it to the teeth and alveolar bone in a predetermined direction.

(Graber,1963)

- **TOOTH-BORNE PASSIVE APPLIANCES:**
 They have no intrinsic force generating components such as springs or screws and depend on the soft tissue stretch and muscular activity to produce the derived treatment results.

(Profitt,1993)
- **TOOTH-BORNE ACTIVE APPLIANCES:**
 These include modifications of activator and bionator that include springs and screws to provide force for transverse or anteroposterior changes.

(Profitt,1993)
- **TISSUE-BORNE APPLIANCES:**
 These are mostly located in the vestibule and have little or no contact with the dentition

(Profitt,1993)
- **MYOTONIC APPLIANCES:**
 They are functional appliances that depend on the muscle mass for their action.

(Erdogan E,1989)
- **MYODYNAMIC APPLIANCE:**
 They are functional appliances that depend on the muscle activity for their function.

(Erdogan E,1989)
- **REMOVABLE FUNCTIONAL APPLIANCES:**
 These can be removed and inserted by the patient.

(Erdogan E,1989)
- **FIXED FUNCTIONAL APPLIANCES:**
 These are fitted to the teeth by the operator and cannot be removed by the patient at will.

(Erdogan E,1989)
- **GROUP I APPLIANCES:**
 They transmit muscle forces directly to the teeth for the correction of malocclusion, e.g., oral screen, inclined planes.

(Erdogan E,1989)
- **GROUP II APPLIANCES:**
 These appliances reposition the mandible and the resultant force is transmitted to the teeth and other structures, e.g., activator, bionator.

(Erdogan E,1989)
- **GROUP III APPLIANCES:**
 These also reposition the mandible but their area of operation is the vestibule outside the dental arch, e.g., frankel appliance, vestibular screen.

(Erdogan E,1989)

- **VESTIBULAR SCREEN:**
 A screen made of acrylic resin that covers the labial or buccal surfaces of one or both dental arches used to treat oral habits and to stimulate tooth movement by using perioral muscle force.
(Newell, 1912)
- **ACTIVATOR:**
 Activator is a loose-fitting appliance which was designed by Andreasen and Haupt to correct retrognathic mandible. The appliance opens the bite and the mandible is advanced for class II correction.
(Kinsley, 1880)
- **FUNCTION REGULATOR:**
 These are removable orthodontic appliances belonging to the large group of functional orthodontic devices because of their growth inhibiting or growth promoting effects.
(Professor Rolf Frankel, 1969)
- **BIONATOR:**
 It is a removable appliance used to help correct an overbite by promoting lower jaw growth.
(Batlers, 1950)
- **LIP BUMPER:**
 The lip bumper can be called a modified vestibular screen that is used for muscular force application or for elimination.
(Denholtz,)
- **TWIN BLOCK:**
 These are simple bite blocks that effectively modify the occlusal inclined plane. These devices use upper and lower bite blocks that engage on occlusal inclined planes
(William Clark 1977)
- **HERBST APPLIANCE:**
 Herbst appliance is a fixed functional appliance that was developed by Emil Herbst and is indicated in corrections of Class II malocclusion.
(Emil Herbst, 1900)
- **CHIN CUP:**
 It is an extra oral appliance that is used to help reduce or correct mandibular prognathism in adolescents.
(Proffit, 1993)

17. GINGIVAL AND PERIODONTAL DISEASES IN CHILDREN

- **PERIODONTICS:**

That specialty of dentistry which encompasses the prevention, diagnosis, and treatment of diseases of the supporting and surrounding tissues of the teeth or their substitutes; the maintenance of the health, function and esthetics of these structures and tissues; and the replacement of lost teeth and supporting structures by grafting or implantation of natural and synthetic devices and materials.

(Glossary of Periodontal Terms, 2001)

- **PERIODONTIUM:**

The tissues that invest and support the teeth including the gingiva, alveolar mucosa, cementum, periodontal ligament, and alveolar and supporting bone.

(Glossary of Periodontal Terms, 2001)

- **GINGIVA:**

The fibrous investing tissue, covered by keratinized epithelium, that immediately surrounds a tooth and is contiguous with its periodontal ligament and with the mucosal tissues of the mouth.

(Glossary of Periodontal Terms, 2001)

- **MARGINAL GINGIVA:**

The most coronal portion of the gingiva. Often used to refer to the free gingiva that forms the wall of the gingival crevice in health.

(Glossary of Periodontal Terms, 2001)

- **ATTACHED GINGIVA:**

The portion of the gingiva that is firm, dense, stippled, and tightly bound to the underlying periosteum, tooth, and bone

(Glossary of Periodontal Terms, 2001)

- **PAPILLA:**

That portion of the gingiva that occupies the interproximal spaces. The interdental extension of the gingiva.

(Glossary of Periodontal Terms, 2001)

- **INTERDENTAL GINGIVA:**

The interdental gingiva occupies the gingival embrasure, which is the interproximal space beneath the area of tooth contact.

(Glossary of Periodontal Terms, 2001)

- **GINGIVAL SULCUS:**
The gingival sulcus is the shallow crevice or space around the tooth bounded by the surface of the tooth on one side and the epithelium lining the free margin of the gingiva on the other side

(Glossary of Periodontal Terms, 2001)
- **GINGIVAL FLUID:**
Tissue fluid that seeps through the crevicular and junctional epithelium. It is increased in the presence of inflammation.

(Glossary of Periodontal Terms, 2001)
- **GINGIVAL DISEASES:**
The pattern of observable signs and symptoms of different disease entities that are localized to the gingiva

(Glossary of Periodontal Terms, 2001)
- **GINGIVITIS:**
Gingivitis is characterized by presence of gingival inflammation without detectable loss of bone or clinical attachment.

(Glossary of Periodontal Terms, 2001)
- **ERUPTION GINGIVITIS:**
It is transient form gingivitis seen associated with newly erupting teeth.

(Glossary of Periodontal Terms, 2001)
- **MARGINAL GINGIVITIS:**
Inflammation limited to the gingiva adjacent to the tooth surface.

(Glossary of Periodontal Terms, 2001)
- **NECROTIZING ULCERATIVE GINGIVITIS (NUG):**
An infection characterized by gingival necrosis presenting as "punched out" papillae, with gingival bleeding and pain.

(Glossary of Periodontal Terms, 2001)
- **NON-PLAQUE-INDUCED GINGIVITIS:**

Gingival inflammation having an etiology other than dental plaque, such as gingival diseases of specific bacterial, viral, fungal, or genetic origin, due to systemic conditions, trauma, foreign body reactions, or other causes.

(Glossary of Periodontal Terms, 2001)

- **PLAQUE-INDUCED GINGIVITIS:**

Gingival inflammation resulting from dental plaque

(Glossary of Periodontal Terms, 2001)

- **PUBERTY-ASSOCIATED GINGIVITIS:**

Pronounced inflammatory response of gingiva to dental plaque and hormones during the circumpubertal period.

(Glossary of Periodontal Terms, 2001)

- **GINGIVOSTOMATITIS:**

Inflammation affecting both the gingiva and the oral mucosa.

(Glossary of Periodontal Terms, 2001)

- **HERPETIC GINGIVOSTOMATITIS:**

An infection of the oral soft tissues caused by the herpes simplex virus and characterized by redness, formation of multiple vesicles, painful ulcers, fever, and lymphadenopathy.

(Glossary of Periodontal Terms, 2001)

- **GRANULOMA:**

A reactive nodule consisting of modified macrophages resembling epithelial cells surrounded by a rim of mononuclear cells, usually lymphocytes, and often containing giant cells

(Glossary of Periodontal Terms, 2001)

- **CENTRAL GIANT CELL GRANULOMA:**

Usually restricted to the jaw bones, this lytic lesion displays loose fibrillar connective tissue, numerous capillaries, and multinuclear giant cells; a histologic appearance similar to the bony lesions of hyperparathyroidism.

(Glossary of Periodontal Terms, 2001)

- **PERIPHERAL GIANT CELL GRANULOMA:**

Considered an unusual proliferative response of the tissues to injury, this lesion always occurs on the gingiva or alveolar mucosa. Histologically, it is a non-encapsulated mass of delicate connective tissue cells, numerous capillaries, and multinucleated giant cells.

(Glossary of Periodontal Terms, 2001)

- PARULIS:

The gingival drainage tract associated with an oral abscess of odontogenic origin. (A gum boil).

(Glossary of Periodontal Terms, 2001)

- POCKET:

A pathologically deepened gingival crevice that does not involve loss of connective tissue attachment. Frequently observed when there is gingival enlargement.

(Glossary of Periodontal Terms, 2001)

- NECROTIZING ULCERATIVE PERIODONTITIS:

An infection characterized by necrosis of gingival tissues, periodontal ligament, and alveolar bone.

(Glossary of Periodontal Terms, 2001)

18. ORAL HYGIENE

- **ORAL HYGIENE:**
Removal of bacterial plaque with brushes, dental floss, and other special instruments. The maintenance of oral cleanliness.

(Glossary of Periodontal Terms, 2001)

- **MATERIA ALBA:**
It refers to the soft accumulation of bacteria and tissue cells that lack the organized structure of dental plaque and are easily displaced with a water spray.

(Newman and Carranza's Clinical Periodontology 13th edition, 2019)

- **BACTERIAL PLAQUE:**
It is defined as a specific but highly variable structural entity resulting from colonization and growth of microorganism consisting of various species and strains embedded on an extracellular matrix.

(WHO, 1978)

- **DENTAL PLAQUE:**
Has also been defined as the nonmineralized microbial accumulation that adheres tenaciously to tooth surfaces, restorations and prosthetic appliances, shows structural organization with predominance of filamentous forms and is composed of an organic matrix derived from salivary glycoproteins and extracellular microbial products and cannot be removed by rinsing or water spray.

(Newman and Carranza's Clinical Periodontology 13th edition, 2019)

- **BIOFILM:**
Biofilm is defined as the relatively undefinable microbial community associated with a tooth surface or any other hard, non-shedding material.

(Widerer and Charaklis, 1989)

Is defined as matrix enclosed bacterial population adherent to each other and/or to surface or interfaces.

(Costerton, 1999)

- **DENTAL CALCULUS:**
It is defined as a hard deposit that forms by mineralization of dental plaque and is generally covered by a layer of unmineralized plaque.

(Newman and Carranza's Clinical Periodontology 13th edition, 2019)

- **ANTIPLAQUE AGENT(S):**
Chemical compounds that alter plaque formation by either directly killing bacteria within biofilms or by modulating pathways associated with biofilm formation.

(Glossary of Periodontal Terms, 2001)

DISCLOSING SOLUTION:

It is a preparation in liquid, tablet or lozenges that contains a dye or other coloring agent used to identify bacterial plaque deposits for instruction, evaluation and research.

(Glossary of Periodontal Terms, 2001)

- DENTIFRICES:

A dentifrice is a substance used with a toothbrush to remove bacterial plaque, material alba, and debris from the gingiva and teeth for cosmetic and sanitary, prevention and therapeutic purposes

(Essentials of Clinical Periodontology and Periodontics, Shantipriya Reddy, 3rd edition, 2011)

- DENTAL FLOSS:

Dental loss is the most widely recommended tool for removing biofilm from proximal tooth surfaces. Floss is made from nylon filaments or plastic monofilaments, and it comes in waxed, unwaxed, thick, thin, and flavored varieties.

(Newman and Carranza's Clinical Periodontology 13th edition, 2019)

- ORAL IRRIGATORS:

These are devices, which use pulses of water or chemotherapeutic agents used to dislodge plaque particularly from interdental areas.

(Glossary of Periodontal Terms, 2001)

- TONGUE SCRAPERS:

These may be flat, flexible, plastic sticks, which help in clean the rough dorsal surface of the tongue.

(Glossary of Periodontal Terms, 2001)

- DENTIFRICES:

Dentifrices are a general term used to describe preparations that are used together with a toothbrush with the purpose to clean and/or polish the teeth

(Monographs in Oral Science, Toothpastes, Volume Editor Cor van Loveren, 2013)

- BINDER: Used to stabilize toothpaste formulations to prevent separation of the liquid and solid phases

(Monographs in Oral Science, Toothpastes, Volume Editor Cor van Loveren, 2013)

- HUMECTANT:

Used in toothpaste to prevent loss of water and subsequent hardening of the product upon exposure to air

(Monographs in Oral Science, Toothpastes, Volume Editor Cor van Loveren, 2013)

- ASTRINGENT:

An agent that causes contraction of the tissues, arrests secretion, or controls bleeding.

(Glossary of Periodontal Terms, 2001)

- SURFACTANT:

An agent that acts on the surface to reduce interfacial surface tension between two liquids or between a liquid and a solid

(Glossary of Periodontal Terms, 2001)

- OBTUNDENT:

An agent or remedy that lessens or relieves sensibility or pain. Soothing, deadening, dulling.

(Glossary of Periodontal Terms, 2001)

19. LESIONS OF ORAL CAVITY

- **LESION:**
Abnormal tissues that include wounds, sores and any other tissue damage caused by injury or disease.
(Burket's oral medicine, 12th edition, 2015)
- **ULCER:**
Lesion characterized by loss of the surface epithelium and frequently some of the underlying connective tissue. It often appears depressed or excavated.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **EROSION:**
Superficial lesion, often arising secondary to rupture of a vesicle or bulla, that is characterized by partial or total loss of the surface epithelium.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **ABSCESS:**
A localized collection of pus in a circumscribed area.
(Shafer,2020)
- **CYST:**
A closed sac or pouch that is lined with epithelium and contains fluid or semisolid material.
(Shafer,2020)
- **BLISTERS:**
A raised lesion filled with a watery fluid.
(Burket's oral medicine, 12th edition, 2015)
- **PUSTULE:**
A raised lesion filled with purulent material A pustule is usually the result of an infection, such as acne, impetigo or boils
(Burket's oral medicine, 12th edition, 2015)
- **PETECHIAE:**
Small pin point hemorrhages (less than 0.3cm)
(Burket's oral medicine, 12th edition, 2015)
- **ECCHYMOSIS:**
Non- elevated area of haemorrhage, larger than a petechia.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **HAEMATOMA:**
Also similar to a blister, but it contains blood.
(Burket's oral medicine, 12th edition, 2015)
- **MACULE:**
A small, circular, flat spot less than 1 cm in diameter. These are the lesions which are flush with the normal mucosa and noticeable because of their difference in color from normal mucosa or skin.
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)

- **VESICLE:**
A raised lesion less than 5 mm across and filled with a clear fluid These lesions may be the result of certain viral infections, such as herpes.
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)
 - **BULLAE:**
Vesicles that are more than 5 mm across are called bullae or blisters. These lesions may be the sunburns, insect bites, chemical irritation or certain viral infections
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)
 - **CRUST:**
A dried collection of blood, serum or pus. Also called a scab, a crust is often part of the normal healing many infectious lesions
(Burket's oral medicine, 12th edition, 2015)
 - **NODULE:**
A solid lesion that has distinct edges and that is usually more deeply rooted than a papule
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)
 - **TELANGIECTASIA:**
Small, dilated blood vessels that appear close to the surface of the skin.
(Burket's oral medicine, 12th edition, 2015)
- Vascular lesion caused by dilatation of a small, superficial blood vessel.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **PAPULE:**
A solid, raised lesion that are smaller than 1cm in diameter.
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)
 - **PLAQUE:**
A patch of closely grouped papules more than 1 cm across is called a plaque.
(Textbook of Oral medicine, Ghom, 4th Edition, 2020)
 - **CYST:**
Cyst is a pathological cavity containing fluid, semifluid or gas, which is usually lined by epithelium and is not formed by the accumulation of pus.
(Shafer's Text book of Oral pathology, 9th Edition ,2020)
 - **UNILOCULAR:**
Describing a radiolucent lesion having a single compartment.
(Oral and maxillofacial pathology, Neville, 3rd edition)
 - **MULTILOCULAR:**
Describing a radiolucent lesion having several or many compartments.
(Oral and maxillofacial pathology, Neville, 3rd edition)
 - **TUMOUR:**
It can be defined as any abnormal growth of tissue resulting from uncontrolled, progressive multiplication of cells and serving no physiological function.
(Shafer's Text book of Oral pathology, 9th Edition ,2020)
 - **SESSILE:**
Describing a tumor or growth whose base is the widest part of the lesion.
(Oral and maxillofacial pathology, Neville, 3rd edition)

- **PEDUNCULATED:**
Describing a tumor or growth whose base is narrower than the widest part of the lesion.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **PAPILLARY:**
Describing a tumor or growth exhibiting numerous surface projections.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **VERRUCOUS:**
Describing a tumor or growth exhibiting a rough, warty surface.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **AMELOBLASTOMA:**
Solid multicystic ameloblastoma is polymorphic neoplasm consisting of proliferating odontogenic epithelium, which usually has a follicular or plexiform pattern, lying in a fibrous stroma.
(WHO)
Ameloblastoma usually unicentric, non-functional, intermittent in growth, anatomically benign and clinically persistent.
(Robinson)
- **HEMANGIOMAS:**

Hemangiomas are considered to be benign tumors of infancy that are characterized by a rapid growth phase with endothelial cell proliferation, followed by gradual involution.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **MELANOTIC NEUROECTODERMAL TUMOR OF INFANCY**
The melanotic neuroectodermal tumor of infancy is a rare pigmented neoplasm that usually occurs during the first year of life.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **FIBROUS DYSPLASIA**
Fibrous dysplasia is a developmental tumorlike condition that is characterized by replacement of normal bone by an excessive proliferation of cellular fibrous connective tissue intermixed with irregular bony trabeculae.
(Oral and maxillofacial pathology, Neville, 3rd edition)
- **CHERUBISM**
Cherubism is a rare benign hereditary condition/being inherited as an autosomal dominant which affects only the jawbones of children bilaterally and symmetrically, usually producing the so-called cherubic look.
(Shafer's Text book of Oral pathology, 9th Edition ,2020)
- **ODONTOMA:**
It is hamartoma of odontogenic origin in which both epithelial and mesenchymal cells exhibit complete differentiation with enamel and dentin laid down in abnormal position.
(Shafer's Text book of Oral pathology, 9th Edition ,2020)

- ERUPTION CYST:

Eruption cyst is defined as an odontogenic cyst with the histologic features of a dentigerous cyst that surrounds a tooth crown that has erupted through bone but not soft tissue and is clinically visible as a soft fluctuant mass on the alveolar ridges

(Shafer's Text book of Oral pathology, 9th Edition ,2020)

- GINGIVAL CYSTS OF THE NEWBORN:

Gingival cysts of the newborn are small, superficial, keratin-filled cysts that are found on the alveolar mucosa of infants.

(Shafer's Text book of Oral pathology, 9th Edition ,2020)

- DENTIGEROUS CYST:

The dentigerous cyst is defined as a cyst that originates by the separation of the follicle from around the crown of an unerupted tooth.

(Shafer's Text book of Oral pathology, 9th Edition ,2020)

- RADICULAR OR PERIAPICAL CYST:

Radicular or periapical cyst is the most common odontogenic cystic lesion of inflammatory origin, which occurs in relation to the apex of a nonvital tooth.

(Shafer's Text book of Oral pathology, 9th Edition ,2020)

20. TRAUMATIC INJURIES

- **TRAUMA:**
Trauma refers to injury; damage; impairment external violence producing injury or degeneration.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **TRAUMATOLOGY:**
Traumatology is a branch of surgery that deals with wounds and disabilities from injuries.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **INJURY:**
Injury refers to a damage or an insult sustained by the tissue. It may evoke dystrophic and / or inflammatory response from the affected part.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **FRACTURE:**
A fracture can be defined as a sudden violent breach of continuity of bone, which may be - complete or incomplete in character.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **CONTUSION:**
Injury produced by blunt trauma that results in edema and hematoma formation in the subcutaneous tissues.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **ABRASIONS:**
Injury that results from friction along a surface, removing or 'peeling off' of the superficial layers of the skin, that results in a raw, exposed or bleeding surface.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **LACERATIONS:**
Injury' that causes a discontinuity in the skin or mucosal surface. Lacerations may be simple, stellate, jagged, bevelled or flap like.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- **AVULSION:**
Avulsion refers loss of tissue due to trauma.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- **ENAMEL INFRACTION:**
An incomplete fracture (crack) of the enamel without loss of tooth substance.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi ,2000)
- **ENAMEL FRACTURE:**
A fracture with loss of tooth substance confined to enamel (uncomplicated crown fracture).
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi ,2000)

- ENAMEL-DENTIN FRACTURE:
A fracture with loss of tooth substance confined to enamel and dentin, but not involving the pulp (uncomplicated crown fracture).
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- ENAMEL-DENTIN FRACTURE INVOLVING THE PULP
A crown-root fracture is defined as a fracture involving enamel, dentin and cementum. The fractures may be grouped according to pulpal involvement into uncomplicated and complicated.
(Textbook and color atlas of traumatic injuries to the teeth 5th edition by J O Andreasen, 2019)
- ROOT FRACTURES:
Root fractures are defined as fractures involving dentin, cementum and pulp.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- CONCUSSION:
An injury to the tooth-supporting structures without abnormal loosening or displacement but with marked reaction to percussion.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- SUBLUXATION:
An injury to the tooth-supporting structures with abnormal loosening but without clinically or radiographically demonstrable displacement of the tooth.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- EXTRUSIVE LUXATION (PERIPHERAL DISPLACEMENT, PARTIAL AVULSION):
Partial displacement of the tooth following the axis of the tooth out of its socket but without leaving the socket.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- LATERAL LUXATION:
Eccentric displacement (other than axial) of the tooth.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- INTRUSIVE LUXATION (CENTRAL DISLOCATION):
Displacement of the tooth deeper into the alveolar bone. This injury is accompanied by comminution or fracture of the alveolar socket
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- SUBLUXATION:
Subluxation is an injury to the tooth-supporting structures with abnormal loosening, but without displacement
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- INTRUSIVE LUXATION (INTRUSION):
Intrusion is displacement of the tooth into the alveolar bone along the axis of the tooth and is accompanied by comminution or fracture of the alveolar socket
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)
- TOOTH AVULSION (EXARTICULATION, TOTAL LUXATION) :
Avulsion implies total displacement of the tooth out of its socket.
(Treatment planning for traumatized teeth by Mitsuhiro Tsukiboshi, 2000)

21. ORAL SURGICAL PROCEDURES IN PEDIATRIC DENTISTRY

- **PRE-PROCEDURAL CONSIDERATIONS:**

- LOCAL ANESTHESIA:

It is defined as a loss of sensation in a circumscribed area of the body caused by a depression of excitation in nerve endings or an inhibition of the conduction process in peripheral nerves.

(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)

- LOCAL ANESTHETICS:

Local anaesthetics are drugs which upon topical application or local injection cause reversible loss of sensory perception especially of pain, in a restricted area of the body. Not only sensory but also motor impulses are interrupted when applied to a mixed nerve, resulting in muscular paralysis and loss of autonomic control as well.

(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)

- LOCAL INFILTRATION:

Small terminal nerve endings in the area of dental treatment are flooded with local anesthetic solution.

(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)

- FIELD BLOCK:

Local anaesthetic is deposited near the larger terminal nerve branches so the anesthetized area will be circumscribed, preventing the passage of impulse from the tooth to the central nervous system (CNS).

(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)

- NERVE BLOCK:

Local anaesthetic is deposited close to a main nerve trunk, usually at a distance from the site of intervention.

(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)

PROCEDURAL CONSIDERATIONS:

- TOOTH EXTRACTION:

The ideal tooth extraction is the procedure of painless removal of whole tooth, or root with minimum trauma to soft tissue and hard tissue so that the wound heals uneventfully and with no postoperative problem.

(Geoffrey L. Howe, 1961)

POST-PROCEDURAL CONSIDERATIONS:

- TRISMUS:

Trismus, from the Greek word trismos, is defined as a prolonged, tetanic spasm of the jaw muscles by which the normal opening of the mouth is restricted (locked jaw).

(Textbook of Oral and Maxillofacial Surgery, Rajiv M Borle, 2014)

- **HEMATOMA**
The effusion of blood into extravascular spaces can be caused by inadvertent nicking of a blood vessel (artery or vein) during administration of a local anaesthetic.
(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)
- **PARESTHESIA:**
Paraesthesia is defined as persistent anaesthesia (anaesthesia well beyond the expected duration), or altered sensation well beyond the expected duration of anaesthesia.
(Handbook of Local Anesthesia, 6th Edition, Stanley Malamed, 2012)
- **BELL'S PALSY:**
It is an abrupt, isolated, unilateral, peripheral facial nerve paralysis without detectable causes.
(Textbook of Oral and Maxillofacial Surgery, Rajiv M Borle, 2014)
- **DRUG OVERDOSE REACTION:**
A drug overdose reaction is defined as those clinical signs and symptoms that result from an overly high blood level of a drug in various target organs and tissues.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **ALLERGY:**
Allergy is a hypersensitive state, acquired through exposure to a particular allergen (anything that can provoke an allergic response is an allergen), re exposure to which produces a heightened capacity to react.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **ANAPHYLAXIS:**
Anaphylaxis is a severe, acute, potentially life-threatening medical condition caused by systemic release of mediators from mast cells and basophils, often in response to an allergen.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRY SOCKET:**
Post-operative pain surrounding the alveolus that increases in severity for some period from 1-3 days after extraction, followed by partial or total clot loss in the interior to alveolus with or without halitosis.
(I.R. Blum, 2002)

22. MEDICAL EMERGENCIES

- **MEDICAL EMERGENCY:**
Sudden, urgent, usually unforeseen occurrence requiring immediate action.
(Dorland's Medical dictionary)
- **SYNCOPE:**
Syncope is defined as transient loss of consciousness due to cerebral ischemia caused by less blood supply to brain.
(Medical Emergencies, Stanley F. Malamed, 7th edition, 2015)
- **POSTURAL HYPOTENSION:**
Postural hypotension is defined as a drop in systolic blood pressure (BP) of at least 20 mm Hg or of diastolic BP of at least 10 mm Hg within 3 minutes of standing when compared with blood pressure from the sitting or supine position.
(Medical Emergencies, Stanley F. Malamed, 7th edition, 2015)
- **ASTHMA:**
Disease characterized by an increased responsiveness of the trachea and bronchi to various stimuli and manifested by widespread narrowing of the airways that changes in severity either spontaneously or as a result of therapy.
- **(American Thoracic Society) HYPERVENTILATION:**
Hyperventilation is rapid or deep breathing that can occur with anxiety or panic. It is also called over breathing. This causes a rapid reduction in carbon dioxide in the body.
(Medical Emergencies Stanley F. Malamed, 7th edition, 2015)
- **SEIZURE:**
A transient occurrence of signs and/or symptoms owing to abnormal excessive or synchronous neuronal activity in the brain.
(Medical Emergencies Stanley F. Malamed, 7th edition, 2015)
- **EPILEPSY:**
Two or more provoked seizures. A chronic noncommunicable disorder of the brain that affects people of all ages.
(WHO)
- **ANAPHYLAXIS:**
Anaphylaxis is a severe, life-threatening, generalised or systemic hypersensitivity reaction.
(Dorland's Medical dictionary)
- **CARDIAC ARREST:**
Cardiac arrest is the cessation of cardiac mechanical activity, determined by the inability to palpate a central pulse, unresponsiveness, and apnea.
(Medical Emergencies Stanley F. Malamed, 7th edition, 2015)
- **MYOCARDIAL INFARCTION:**
Myocardial infarction is defined as a diseased condition which is caused by reduced blood flow in a coronary artery due to atherosclerosis and occlusion of an artery by an embolus or thrombus.
(Medical Emergencies Stanley F. Malamed, 7th edition, 2015)
- **ANGINA PECTORIS:**
Angina pectoris is acute cardiac pain caused by inadequate blood flow as a result of myocardial ischemia.
(Medical Emergencies Stanley F. Malamed, 7th edition, 2015)

23. PHARMACOLOGY

- **PHARMACY:**
It is the art and science of identification, compounding and dispensing of drugs. It also includes collection, identification, isolation, purification, synthesis, standardisation and quality control of medicinal substances.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOPOEIA:**
It is the official publication containing a list of drugs and medicinal preparations approved for use, their formulae and other information needed to prepare a drug; their physical properties, tests for their identity, purity and potency.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOLOGY:**
It is the science of drugs that deals with interaction of exogenously administered chemical molecules (drugs) with living systems.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACODYNAMICS:**
What the drug does to the body.
It is the study of the effects of the drugs on the body and their mechanisms of action.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOKINETICS:**
What the body does to the drug. It is the study of the absorption, distribution, metabolism and excretion of drugs.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOECONOMICS:**
It deals with the cost, i.e., economic aspects of drugs used therapeutically.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOGENOMICS:**
It is a branch of pharmacogenetics which deals with the use of genetic information in selecting drugs for a person.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOTHERAPEUTICS:**
It is the application of pharmacological information together with knowledge of the disease for its prevention, mitigation or cure. Selection of the most appropriate drug, dosage and duration of treatment in accordance with the specific features of a patient are a part of pharmacotherapeutics.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOEPIDEMIOLOGY:**
It is the study of both the useful and adverse effects of drugs on large numbers of people.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PHARMACOVIGILANCE:**
It is a branch of pharmacoepidemiology which deals with the epidemiologic study of adverse drug effects.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **CLINICAL PHARMACOLOGY:**
It is the scientific study of drugs (both new and old) in man. It includes pharmacodynamic and pharmacokinetic investigation in healthy volunteers and in

patients; evaluation of efficacy and safety of drugs and comparative trials with other forms of treatment; surveillance of patterns of drug use, adverse effects, etc.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **THERAPEUTICS:**

It deals with the use of drugs in the prevention and treatment of disease.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **TOXICOLOGY:**

It is the study of poisonous effect of drugs and other chemicals (household, environmental pollutant, industrial, agricultural, homicidal) with emphasis on detection, prevention and treatment of poisonings. It also includes the study of adverse effects of drugs, since the same substance can be a drug or a poison, depending on the dose.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **DRUG:**

It is a substance used in the diagnosis, prevention or treatment of a disease.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

“A drug is any substance or product that is used or intended to be used to modify or explore physiological systems or pathological states for the benefit of the recipient.”

(WHO, 1966)

- **DOSE:**

It is the appropriate amount of a drug needed to produce a certain degree of response in a given patient.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **DOSAGE FORM:**

It is a product suitable for administration of a drug to a patient. Every active ingredient (drug) has to be formulated by adding other substances (excipients, diluents, preservatives, vehicles, etc.) according to a specific recipe and packaged into a specific ‘dosage form’ such as tablet, elixir, ointment, injection vial, etc. which is then administered to the subject.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **POWDERS:**

These are the drugs in a dry and finely pulverised state.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **BULK POWDERS:**

Powders for topical application

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **EFFERVESCENT POWDERS:**

They contain granulated sod. bicarbonate and citric or tartaric acid and react when dissolved in water to liberate CO₂ causing bubbling.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **TABLETS:**

The drug is powdered or granulated, mixed with binding agents, and other excipients, and compressed/ moulded into discoid, oblong or other shapes suitable for swallowing. The tablet may be plain or sugar coated/ film coated/enteric coated, etc.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **SUSTAINED RELEASE TABLETS:**

They contain drug particles which are coated to dissolve at different rates.

(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **CONTROLLED RELEASE TABLETS:**
They contain a semipermeable membrane which controls release of the drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PILLS:**
These are archaic dosage forms in which the drug powder is mixed with honey/syrup to make a sticky mass. This is then rolled into spherical/oval bodies meant to be swallowed.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **CAPSULES:**
These are water soluble cylindrical containers made of gelatin which are filled with powdered or liquid medicament. The container dissolves on swallowing so that the drug is released in the stomach.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SPANSULES:**
These are extended release capsules which are packed with granules of the drug having different coatings to dissolve over a range of time periods.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **LOZENGES:**
These are tablet-like bodies of various shapes containing the drug along with a suitable gum, sweetening and flavouring agents. They are to be retained in mouth and allowed to dissolve slowly providing the drug for local action in the mouth and throat.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SUPPOSITORIES:**
These are conical bullet-shaped dosage forms for insertion into anal canal, in which the drug is mixed with a mouldable firm base that melts at body temperature.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PESSARIES:**
These are oval or suitably shaped bodies for vaginal insertion.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **BOUGIES:**
These are elongated pencil-like ones meant for insertion into male or female urethra.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **AQUEOUS SOLUTIONS:**
They contain the drug dissolved in water; may be meant for oral, topical or parenteral administration.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SUSPENSIONS:**
These are dispersion of insoluble drugs in water with the help of a suspending agent.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **Emulsions:**
These are uniform mixtures of two immiscible liquids (mostly oil and water) in which droplets of one (dispersed phase) are suspended in the other (continuous phase) with the help of an amphiphilic emulsifying agent.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **ELIXIRS:**
Elixirs are hydro-alcoholic solutions of drugs, usually sweetened with syrup and flavoured by fruit extracts.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **SYRUPS:**
They have higher concentration of sugar and are thicker in consistency.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **LINCTUS:**
It is a viscous syrupy liquid meant to be licked slowly for soothing the throat and it generally has menthol to impart cooling sensation, and an antitussive.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **DROPS:**
These are relatively more concentrated solutions of medicaments meant for oral ingestion or external application to eye, nose or ear canal.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **LOTIONS:**
These are solutions, suspensions or emulsions meant for external application to the skin without rubbing. They generally have soothing, protective or emollient property.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **LINIMENTS:**
These are similar preparations which generally contain counterirritants and are to be rubbed on the skin to relieve pain and cause rubefaction.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **INJECTIONS:**
These are sterile solutions or suspensions in aqueous or oily medium for subcutaneous or intramuscular administration, while only aqueous solutions (not suspensions) are suitable for intravenous (i.v.) injection. Injections are supplied in sealed glass *ampoules* or air tight rubber capped *vials*.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **AMPOULES:**
Are broken just before injection, and usually contain a single dose.
Vials may be single or multi-dose and drug from the vial is sucked in a syringe by piercing the rubber cap.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **OINTMENTS:**
These are greasy semisolid preparations meant for external application to the skin, eye, nasal mucosa, ear or anal canal. The drug is incorporated in an oily base, such as soft or hard paraffin, wool fat, bee's wax, etc.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **CREAMS:**
Creams are similar to ointment but the base is a water in oil emulsion.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)
- **PASTES:**
These are non- greasy preparations of thick consistency containing hydrophilic adhesive powders such as starch, prepared chalk, aluminium/magnesium hydroxide, zinc oxide, carboxy methylcellulose, etc. which swell by absorbing water.
(Essentials of Pharmacology, K D Tripathi, 8th Edition,2019)

- **GELS:**
The medicament is incorporated in a viscous colloidal solution of gelatin or similar material and is usually dispensed in collapsible tubes. They are meant for external application to the skin or mucosa and provide longer duration contact, but are nongreasy and washable with water.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **BIOTRANSFORMATION:**
It is the process of biochemical alteration of the drug in the body.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **BIOAVAILABILITY:**
It refers to the rate and extent of absorption of a drug from a dosage form as determined by its concentration-time curve in blood or by its excretion in urine. It is a measure of the fraction (F) of administered dose of a drug that reaches the systemic circulation in the unchanged form.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **BIOEQUIVALENCE:**
Comparison of bioavailability of different formulations of the same drug is the study of bioequivalence.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **APPARENT VOLUME OF DISTRIBUTION:**
It is defined as the volume necessary to accommodate the entire amount of the drug administered, if the concentration throughout the body were equal to that in plasma. It relates the amount of the drug in the body to the concentration of the drug in plasma.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **CLEARANCE (CL):**
It is the volume of plasma freed completely of the drug in unit time. It can be calculated by the ratio of the rate of elimination to the plasma concentration.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PLASMA HALF-LIFE:**
The plasma half-life ($t_{1/2}$) of a drug is the time taken for its plasma concentration to be reduced to half of its original value.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **FIRST ORDER (EXPONENTIAL) KINETICS:**
It is the rate of elimination is directly proportional to drug concentration, CL remains constant; or a constant fraction of the drug present in the body is eliminated in unit time.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **ZERO ORDER (LINEAR) KINETICS:**
It is the rate of elimination remains constant irrespective of drug concentration, CL decreases with increase in concentration; or a constant amount of the drug is eliminated in unit time.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **LOADING DOSE:**
This is a single or few quickly repeated doses given in the beginning to attain target concentration rapidly. Thus, loading dose is governed only by V and not by CL or $t_{1/2}$.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **MAINTENANCE DOSE:**
This dose is one that is to be repeated at specified intervals after the attainment of target Cpss so as to maintain the same by balancing elimination. The maintenance dose rate is governed by CL (or $t_{1/2}$) of the drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **RECEPTOR:**
It is defined as a macromolecule or binding site located on the surface or within the effector cell that serves to recognize the signal molecule/drug and initiate response to it, but itself has no other function.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **AGONIST:**
An agent which activates a receptor to produce an effect similar to that of the physiological signal molecule.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **INVERSE AGONIST:**
An agent which activates a receptor to produce an effect in the opposite direction to that of the agonist.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **ANTAGONIST:**
An agent which prevents the action of an agonist on a receptor or the subsequent response but does not have any effect of its own.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PARTIAL AGONIST:**
An agent which activates a receptor to produce submaximal effect but antagonizes the action of a full agonist.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **LIGAND:**
Any molecule which attaches selectively to particular receptors or sites. The term only indicates affinity or ability to bind without regard to functional change: agonists and competitive antagonists are both ligands of the same receptor.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG ACTION:**
It is the initial combination of the drug with its receptor resulting in a conformational change in the latter (in case of agonists), or prevention of conformational change through exclusion of the agonist (in case of antagonists).
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG EFFECT:**
It is the ultimate change in biological function brought about as a consequence of drug action, through a series of intermediate steps (transducer).
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG POTENCY:**
It refers to the amount of drug needed to produce a certain response.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **DRUG EFFICACY:**
It refers to the maximal response that can be elicited by the drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG RESISTANCE:**
It refers to tolerance of microorganisms to inhibitory action of antimicrobials.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **ADVERSE EFFECT:**
It is 'any undesirable or unintended consequence of drug administration'.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SIDE EFFECTS:**
These are unwanted but often unavoidable pharmacodynamic effects that occur at therapeutic doses.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **SECONDARY EFFECTS:**
These are indirect consequences of a primary action of the drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **TOXIC EFFECTS:**
These are the result of excessive pharmacological action of the drug due to overdosage or prolonged use.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **TACHYPHYLAXIS:**
It is rapid development of tolerance when doses of a drug are repeated in quick succession, and result in marked reduction in response.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **IDIOSYNCRASY:**
Idiosyncrasy refers to genetically determined abnormal reactivity to a chemical producing an uncharacteristic reaction.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG ALLERGY:**
It is an immunologically mediated reaction producing stereotype symptoms which are unrelated to the pharmacodynamic profile of the drug, and can occur even with much smaller doses. This is also called drug hypersensitivity.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG DEPENDENCE:**
It is a state in which use of drugs for personal satisfaction is accorded a higher priority than other basic needs, often in the face of known risks to health.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **PSYCHOLOGICAL DEPENDENCE:**
It is said to have developed when the individual believes that optimal state of wellbeing is achieved only through the actions of the drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

- **PHYSICAL DEPENDENCE:**
It is an altered physiological state produced by repeated administration of a drug which necessitates the continued presence of the drug to maintain physiological equilibrium.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG ABUSE:**
Refers to use of a drug by self-medication in a manner and amount that deviates from the approved medical and social patterns in a given culture at a given time.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG ADDICTION:**
It is a pattern of compulsive drug use characterized by overwhelming involvement with the use of a drug.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **DRUG HABITUATION:**
It denotes less intensive involvement with the drug, so that its withdrawal produces only mild discomfort.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)
- **TERATOGENICITY:**
It refers to the capacity of a drug to cause foetal abnormalities when administered to the pregnant mother.
(Essentials of Pharmacology, K D Tripathi, 8th Edition, 2019)

24. PAEDIATRIC PROSTHODONTICS

- **PROSTHODONTICS:**
Prosthodontics is the dental specialty pertaining to the diagnosis, treatment planning, rehabilitation, and maintenance of the oral function, comfort, appearance, and health of patients with clinical conditions associated with missing or deficient teeth and/or maxillofacial tissues by using biocompatible substitutes
(GPT 9, 2017)
- **PAEDIATRIC PROSTHODONTICS:**
It is the division of art and science of dentistry, which is concerned with the replacement of missing primary and permanent teeth by fixed or removable substitutes.
- **PROSTHESIS:**
An artificial replacement of part of the human anatomy restoring form, function, and aesthetics.
(GPT 9, 2017)
- **IMPRESSION:**
A negative likeness or copy in reverse of the surface of an object; an imprint of the teeth and adjacent structures for use in dentistry
(GPT 9, 2017)
- **PRELIMINARY IMPRESSION:**
A negative likeness made for the purpose of diagnosis, treatment planning, and/or the fabrication of a custom impression tray
(GPT 9, 2017)
- **FINAL IMPRESSION:**
The impression that represents the completion of the registration of the surface or object.
(GPT 9, 2017)
- **IMPRESSION MATERIAL:**
Any substance or combination of substances used for making an impression or negative reproduction.
(GPT 9, 2017)
- **COMPLETE DENTURE PROSTHETICS:**
The art and science of the restoration of an edentulous mouth.
(GPT 9, 2017)
- **PARTIAL DENTURE:**
A removable partial denture or a fixed partial denture that restores a partially edentulous arch.
(GPT 9, 2017)
- **COMPLETE DENTURE:**
It has been defined as a dental prosthesis that replaces all of natural dentition and associated structures of the maxilla and mandible
(Boucher, 1982)
- A fixed or removable dental prosthesis that replaces the entire dentition and associated structures of the maxillae or mandible
(GPT 9, 2017)

- **FIXED PROSTHODONTICS:**
 The branch of prosthodontics concerned with the replacement and/or restoration of teeth by artificial substitutes that cannot be removed from the mouth by the patient.
 (GPT 9, 2017)
- **FIXED PARTIAL DENTURE (FPD):**
 It can be defined as a partial denture that is luted or securely retained to natural teeth, roots or dental implant abutment that furnishes primary support for prosthesis.
 (GPT 9, 2017)
- **FIXED PARTIAL DENTURE:**
 Any dental prosthesis that is luted, screwed, or mechanically attached or otherwise securely retained to natural teeth, tooth roots, and/or dental implants/abutments that furnish the primary support for the dental prosthesis and restoring teeth in a partially edentulous arch; it cannot be removed by the patient.
 (GPT 9, 2017)
- **PONTIC:**
 An artificial tooth on a fixed partial denture that replaces a missing natural tooth, restores its function, and usually restores the space previously occupied by the clinical crown.
 (GPT 9, 2017)
- **CONNECTOR:**
 Connector in fixed prosthodontics, the portion of a fixed partial denture that unites the retainer(s) and pontic (s) retainers.
 (GPT 9, 2017)
- **REMOVABLE PARTIAL DENTURE:**
 It is a partial denture that can be readily placed in the mouth and removed by the wearer.
 (Boucher, 1982)
 It is defined as any prosthesis that replaces some teeth in a partial dentate arch. It can be removed from mouth and replaced at will
 (GPT 9, 2017)
- **OVERDENTURE/OVERLAY DENTURE:**
 Overdenture is a complete or partial removable denture supported by retained roots to provide support, stability, tactile and proprioceptive sensation to reduce ridge resorption.
 (Boucher, 1982)
 Any removable dental prosthesis that covers and rests on one or more remaining natural teeth, the roots of natural teeth, and/or dental implants
 (GPT 9, 2017)
 A dental prosthesis that covers and is partially supported by natural teeth, natural tooth roots, and/or dental implants
 (GPT 9, 2017)
- **IMMEDIATE DENTURE:**
 Any fixed or removable dental prosthesis fabricated for placement immediately following the removal of a natural tooth/teeth
 (GPT 9, 2017)

- **CROWN:**
A crown is an artificial replacement that restores missing tooth structure by surrounding part or all of the remaining structure.

(Rosenstiel)

An artificial replacement that restores missing tooth structure by surrounding part or all of the remaining structure with a material such as cast metal alloy, metal-ceramics, ceramics, resin, or a combination of materials.

(GPT 9, 2017)

- **STAINLESS STEEL CROWN:**

Can be defined as prefabricated crown form that are adapted to individual teeth and cemented with biocompatible luting agent.

(GPT 9, 2017)

- **IMPLANT:**

Any object or material, such as an alloplastic substance or other tissue, which is partially or completely inserted or grafted into the body for therapeutic, diagnostic, prosthetic, or experimental purpose.

(GPT 9, 2017)

- **IMPLANT PROSTHODONTICS:**

The selection, planning, development, placement, replacement of missing teeth and/or associated structures, and maintenance of restoration(s) with dental implants.

(GPT 9, 2017)

- **MAXILLOFACIAL PROSTHETICS:**

A maxillofacial prosthesis used to close a congenital or acquired tissue opening, primarily of the hard palate and/or contiguous alveolar/soft tissue structures

(GPT 7)

A maxillofacial prosthesis used to close, cover, or maintain the integrity of the oral and nasal compartments resulting from a congenital, acquired, or developmental disease process, such as cancer, cleft palate, osteoradionecrosis of the palate; the prosthesis facilitates speech and deglutition by replacing those tissues lost because of the disease process and can, as a result, reduce nasal regurgitation and hyper nasal speech, improve articulation, deglutition, and mastication

(GPT 9, 2017)

- **OCULAR PROSTHESIS:**

A maxillofacial prosthesis that artificially replaces an eye missing as a result of trauma, surgery, or congenital absence; the prosthesis does not replace missing eyelids or adjacent skin, mucosa or muscle

(GPT 9, 2017)

- **AURICULAR PROSTHESIS:**

a removable maxillofacial prosthesis that artificially restores part of or the entire natural ear.

(GPT 9, 2017)

- **INTRAORAL OBTURATORS:** Obturator is a prosthesis used to close a congenital or acquired opening in the palate.

(Boucher, 1982)

An obturator is a disc or plate, natural or artificial, which closes an opening or defect of the maxilla as a result of a cleft palate or partial or total removal of maxilla for a tumor mass.

(Chalian, 1971)

- **PALATAL LIFT PROSTHESIS:**
A maxillofacial prosthesis that elevates the soft palate superiorly and aids in restoration of soft palate functions that may be lost because of an acquired, congenital or developmental defect.
(GPT 9, 2017)
- **SPEECH AID:**
Any therapy or any instrument, apparatus, or device used to improve speech quality.
(GPT 9, 2017)
- **SPEECH AID PROSTHESIS:**
A removable maxillofacial prosthesis used to restore an acquired or congenital defect of the soft palate with a portion extending into the pharynx to separate the oropharynx and nasopharynx during phonation and deglutition, thereby completing the palatopharyngeal sphincter.
(GPT 9, 2017)
- **PEDIATRIC SPEECH AID PROSTHESIS:**
A temporary or interim maxillofacial prosthesis used to close a defect in the hard and/or soft palate of an infant or child; it may replace tissue lost as a result of developmental or surgical alterations.
(GPT 9, 2017)
- **CAST POST-AND-CORE:**
A one-piece foundation restoration for an endodontically treated tooth that comprises a post within the root canal and a core replacing missing coronal structure to form the tooth preparation.
(GPT 9, 2017)
- **POST:**
A post usually made of metal or fiber-reinforced composite resin that is fitted into a prepared root canal of a natural tooth.
(GPT 9, 2017)
- **CORE:**
The foundation restoration which restores sufficient coronal anatomy of a vital or endodontically treated tooth.
(GPT 9, 2017)
- **POST-AND-CORE:**
A post with incorporated core; it provides retention and resistance for an artificial crown; it is also used as a platform for retentive attachment systems and non-retentive overdenture abutments.
(GPT 9, 2017)
- **VENEER:**
A superficial or attractive display in multiple layers, frequently termed a laminate veneer.
(GPT 9, 2017)

- **COMPOSITE RESIN LAMINATE VENEER:**
A thin, bonded composite resin restoration that restores the facial, incisal, and part of the proximal surfaces of teeth requiring aesthetic restoration
(GPT 9, 2017)
- **COMPOSITE RESIN VENEER:**
Laboratory fabrication of a prosthesis with layered composite resin bonded to a framework.
(GPT 9, 2017)
- **CERAMICS:**
Compounds of one or more metals with a non-metallic element, usually oxygen; they are formed of chemical and biochemically stable substances that are strong, hard, brittle, and inert non-conductors of thermal and electrical energy.
(GPT 9, 2017)

25. DENTAL CARE FOR SPECIAL CHILD

- **DISABILITY:**
Disability represents a departure from the norm in terms of individual performance.
(Behaviour Management in Dentistry for Children, G.Z. Wright, 2014)
- **HANDICAP:**
Handicap is a social phenomenon, representing the social and environmental consequences for the individual stemming from the presence of impairment and disability.
(Behaviour Management in Dentistry for Children, G.Z. Wright, 2014)
- **HANDICAPPED CHILD:**
One who over an appreciable period of time is prevented by physical or mental conditions from full participation in the normal activities of their age groups including those of a social, recreational, educational and vocational nature.
(World Health Organization, 1980)
A child who cannot within limits play, learn, work or do things other children of his age can do; he is hindered in achieving his full physical, mental and social potentialities.
(American public health association)
- **DISABLED PERSON:**
The term "disability" means with respect to an individual who has (a) a physical or mental impairment that substantially limits one or more of the major life activities of such individual; (b) a record of such an impairment; or (c) being regarded as having such an impairment.
(Americans Disabilities Act, 1990)
- **DENTALLY HANDICAPPED:**
It states, a person should be considered dentally handicapped if there is pain, infection or lack of functional dentition that affects him/her as follows:
 - a) Restricts consumption of a diet adequate to support growth and energy needs.
 - b) Delays or otherwise alters growth and development.
 - c) Inhibits performance of any major life activity including work, learning, communication and recreation.*(American Association of Pediatric Dentistry, 1996)*
- **SPECIAL HEALTH CARE NEEDS:**
Special health care needs defined as "any physical, developmental, mental, sensory, behavioural, cognitive, or emotional impairment or limiting condition that requires medical management, health care intervention, and/or use of specialized services or programs. The condition may be congenital, developmental, or acquired through disease, trauma, or environmental cause and may impose limitations in performing daily self-maintenance activities or substantial limitations in a major life activity. Health care for individuals with special needs requires specialized knowledge acquired by additional training, as well as increased awareness and attention, adaptation, and accommodative measures beyond what are considered routine.
(AAPD, 2013)
- **CHILDREN WITH SPECIAL HEALTH CARE NEEDS (CSHCN):**
Children with special health care needs (CSHCN) are defined as "Those who have or are at an increased risk for a chronic physical, developmental, behavioural, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.
(The Federal Maternal and Child Health Bureau, 1998)

- **INTELLECTUAL DISABILITY:**
Intellectual disability is defined by the American Academy of Intellectual and Developmental Disability as "a disability characterized by significant limitations both in intellectual functioning (reasoning, learning, problem solving) and in adaptive behaviour which covers a range of day-to-day social and practical skills."
(Behaviour Management in Dentistry for Children, G.Z. Wright, 2014)
- **MENTAL RETARDATION:**
It is defined as "Subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behaviour."
(The American Association of Mental Deficiency, AAMD)
- **SUBAVERAGE GENERAL INTELLECTUAL FUNCTIONING:**
Is defined as a developmental or intelligence quotient (IQ) that is below 70 and represents two or more standard deviation from a mean of 100.
(Capute)
- **CEREBRAL PALSY:**
It is described as a group of disorders of the development of movement and posture, causing activity limitations that are attributed to nonprogressive disturbances that occurred in the developing fetal or infant brain.
(American Academy for Cerebral Palsy and Developmental Medicine)
- **QUADRIPLEGIA:**
Paralysis of all four extremities, usually caused by an injury to or disease of cervical spinal cord.
(Taber's medical dictionary)
- **HEMIPLEGIA:**
Total or partial paralysis of one side of the body that results from disease of or injury to the motor centres of the brain.
(Merriam- Webster Medical dictionary)
- PARAPLEGIA:**
Partial or complete paralysis of the lower half of the body with involvement of both legs that is usually due to injury or disease of spinal cord in the thoracic or lumbar region.
(Merriam- Webster Medical dictionary)
- **AUTISTIC DISORDER:**
It is a pervasive developmental disorder defined behaviourally as a syndrome consisting of abnormal development of social skills (withdrawal, lack of interest in peers), limitations in the use of interactive language (speech as well as nonverbal communication), and sensorimotor deficits (inconsistent responses to environmental stimuli). Generic terms; autism and autistic refer to the broad spectrum of pervasive developmental disorders that exhibit autistic features as their primary presenting behaviours.
(Behaviour Management in Dentistry for Children, G.Z. Wright, 2014)
- **LEARNING DISABILITY:**
The term is applied to children who exhibit a disorder in one or more of the basic psychological processes, involved in understanding or using spoken or written language.
(Behaviour Management in Dentistry for Children, G.Z. Wright, 2014)
- **APNEA:**
It is the cessation of airflow for at least 10 sec
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)

- APNEA INDEX (AD):
It is the number of apneas per hour of sleep. Five or less is considered as normal.
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)
- APNEA-HYPOPNEA INDEX (AH):
It is the number of apneas and hypopneas per hour of sleep. Ten or less is usually considered to be normal
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)
- CENTRAL SLEEP APNEA:
It is the cessation of airflow because of lack of respiratory effort.
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)
- HYPOPNEA:
It is an abnormal reduction of airflow for at least 10 sec.
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)
- MIXED SLEEP APNEA:
It is the cessation of airflow starting as central followed by obstructive.
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)
- OBSTRUCTIVE SLEEP APNEA (OSA):
It is the cessation of airflow in the upper airway despite adequate effort to breath.
(Sleep Disorders in Pediatric Dentistry, Edmund Leim, 2019)

CLEFT LIP:

Cleft lip refers to open space between lip especially in part of vermilion line or failure in fusion of lip. It is also known as “hare lip”.

(Wongs textbook of Pediatrics)

- CLEFT PALATE:
Cleft palate refers to failure in development of parts which making the palatine bone (maxillary process), soft palate (uvula).
(Wongs text book of Pediatrics)

26. FORENSIC PEDODONTICS

- **FORENSIC MEDICINE:**

It is defined as the branch of medicine wherein the knowledge of medicine is applied to the knowledge of law to derive justice

(Rao, 2000)

- **FORENSIC SCIENCE:**

It is a study of physical information connected with crimes or collection of evidences by scientifically examining the objects or substances that are involved in the crime.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

Forensic science refers to areas of endeavour that can be used in a judicial setting and is accepted by the court and the general scientific community to separate truth from untruth. It deals with the study of collection of information connected with the crime.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

- **FORENSIC ODONTOLOGY:**

Forensic odontology is defined as the branch of odontology, which deals with the proper handling and examination of dental evidence and with the proper examination of dental evidence and with the proper evaluation a presentation of dental findings in the interest of justice

(Pederson, 1969)

It is the branch of dentistry, which deals with the proper handling and examination of dental evidence and proper evaluation and presentation of dental findings in the interest of justice

(FDI,2015)

Forensic odontology is that branch of dentistry which – in the interests of justice – deals with the proper handling and examination of dental evidence and with the proper evaluation and presentation of dental findings.

(Keiser Neilsen, 1970)

- **BITE:** Is to tear or seize with the teeth.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

- **BITE MARK:**

A mark caused by teeth alone or in combination with other oral parts or consists of teeth marks produced by the antagonist teeth, which can be as two opposing arch marks.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

- **TOOTH MARK:** Produced by two or more teeth.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

- **ARCH MARK:** Four or five marks of adjacent teeth must be present before a mark can be identified as a human arch mark.

(Forensic Odontology: An Essential Guide, Catherine Adams, 2014)

27. DENTAL INDICES

- INDEX:

An Index has been defined as a numerical value describing the relative status of a population on a graduated scale with definite upper and lower limits, which is designed to permit and facilitate comparison with other populations classified by the same criteria and methods.

(Russel A. L.)

Epidemiologic indices are attempts to quantitate clinical conditions on a graduated scale, thereby facilitating comparison among populations examined by the same criteria and methods.

(Irving Glickman)

Oral Indices are essentially sets of value, usually numerical with maximum and minimum limits, used to describe variables of specific conditions on a graduated scale, which use the same criteria and method to compare a specific variable in individuals, samples or populations with that same variable as is found in other individuals, samples or populations.

(George P. Barnes et al)

An Index is an expression of clinical observation in numerical values which is used to describe the status of the individual or group with respect to a condition being measured.

(Esther M. Wilkins)

Dental Index is an abbreviated measurement of the amount or condition of disease in a population, a numerical scale with defined upper and lower limit designed to permit and facilitate comparison with other populations classified by the same criteria and method.

(Pamela Zarkowski)

28. RESEARCH METHODOLOGY

- **PUBLIC:**
Defined as “of or pertaining to the people of a community, state or nation”.
(Knutson)
- **PUBLIC HEALTH:**
It is people’s health and it is concerned with the aggregate health of a group, a community, a state or a nation”.
(Knutson)
It is defined as “ the art and science of preventing disease, prolonging life and promoting physical and mental efficiency, through organized community efforts; for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease and the development of the social machinery to ensure everyone a standard of living adequate for the maintenance of health, so organizing these benefits so as to enable every citizen to realize his birthright of health and longevity”.
(Winslow,1920)
- **DENTAL PUBLIC HEALTH:**
“The science and art of preventing and controlling disease and promoting dental health through organized community efforts”.
(American Board of Dental Public Health)
- **DENTAL PUBLIC HEALTH:**
It is a concern for and activity directed towards the improvement and promotion of the dental health of the population as a whole as well as of individuals within that population”.
(A.W. Jong)
- **STATISTICS:**
It is the science of compiling, classifying and tabulating numerical data and expressing the results in a mathematical or graphical form.
(Soben Peter, 6th Edition, 2017)
- **POPULATION**
The group of all individuals who are the focus of the investigation is known as Population.
(Soben Peter, 6th Edition, 2017)
- **SAMPLE:**
The group of individuals who are actually available for the investigation. The sample is a portion of the population selected from a population in same manner.
(Soben Peter, 6th Edition, 2017)
- **SAMPLING UNITS:**
The individual entities that form the focus of the study.
(Soben Peter, 6th Edition, 2017)
- **SAMPLING LIST/ SAMPLING FRAME:**
It is the list of sampling units.
(Soben Peter, 6th Edition, 2017)
- **SAMPLING FRACTION:**
The proportion of the population that will be included in the study.
(Soben Peter, 6th Edition, 2017)

- **DEGREE OF FREEDOM:**

It is defined as the number of independent members in the sample.

(Soben Peter, 6th Edition, 2017)

- **EPIDEMIOLOGY:** (Epi- upon, demos- people and logos – science)

Defined as the study of the distribution and determinants of health- related events in population.

(Soben Peter, 6th Edition, 2017)

Epidemiology is the branch of medical science dealing with epidemics.

(Parkin, 1873)

It is defined as the science which considers the occurrence, distribution and types of diseases of mankind, in distinct epochs of time at varying points on the earth's surface; and secondly, will render an account of the relations of these diseases to inherent characteristics of an individual, and to the external conditions surrounding him and determining his manner of life”.

(Frost W. H, 1927)

It is defined as the study of disease, any disease as a mass phenomenon.”

(Greenwood, 1934)

Epidemiology is defined as the study of the distribution and determinants of disease frequency in man”.

(Mac Mohan and Pugh, 1960)

Epidemiology is defined as that field of medical sciences which is concerned with the relationship of the various factors and conditions which determine the frequencies and distributions of an infectious process, a disease or a physiological state in a human community.”

(Maxcy- Rosenau)

It is defined as “that which is concerned with the circumstances under which diseases occur, where disease tend to flourish and where they do not. Such circumstances may be microbiological or toxicological; they may be based on genetic, social or environmental factors; even religious or political factors may come under scrutiny, provided they are found to have some bearing upon disease prevalence.”

(Paul. J. R)

Defined Epidemiology as “the study of those factors which influence the occurrence and distribution of health, disease, defect, disability and death in populations.”

(Englander, 1962)

Epidemiology is also defined as a science concerned with study of factors that influence the occurrence and distribution of health, disease, defect, disability and death in group of individuals”.

(Clark E. G, 1965)

Epidemiology is defined as study of factors determining the frequency and distribution of disease in human population”.

(Lowe and Kostrewski, 1973)

It is defined as the study of distribution and determinants of health related states or events in specified population, and application of this study to control the health problems”.

(John Last, 1988)

- **GENERAL EPIDEMIOLOGY:**

It is that branch in which general principles of epidemiology are applied to study the natural history of the disease.

(Soben Peter, 6th Edition, 2017)

- **SPECIFIC EPIDEMIOLOGY:**
It is the branch which deals with study of specific diseases.
(Soben Peter, 6th Edition, 2017)
- **FIELD EPIDEMIOLOGY:**
That branch of epidemiology in which epidemiological investigations are carried out in the field generally with aid of laboratory and competent field investigation staff.
(Soben Peter, 6th Edition, 2017)
- **CLINICAL EPIDEMIOLOGY:**
That branch of epidemiology in which epidemiological studies of socio- psychological and environmental conditions of patients admitted to the hospital are studied.
(Soben Peter, 6th Edition, 2017)
- **GLOBAL EPIDEMIOLOGY:**
It is a branch of epidemiology which carries out studies of diseases affecting several countries of the world having the potentialities of spread from country to country by sea and air route by people communicating between the countries.
(Soben Peter, 6th Edition, 2017)
- **EVALUATION EPIDEMIOLOGY:**
It is that branch of epidemiology that conducts studies to evaluate the effectiveness and efficiency of health services and preventive programmes.
(Soben Peter, 6th Edition, 2017)
- **FORECASTING EPIDEMIOLOGY:**
That determines the possibility for an epidemic disease to occur in a particular place or area based on the suspected increase in the possible etiological factors.
(Soben Peter, 6th Edition, 2017)
- **EPIDEMIOLOGIST:**
Any person who researches into the occurrence of disease or disability in groups of people, is called as an Epidemiologist.
(Soben Peter, 6th Edition, 2017)
- **VARIATE:**
It can be defined as any piece of information referring to the patient or the patient's disease.
(Soben Peter, 6th Edition, 2017)
- **CIRCUMSTANCE:**
It can be defined as any factor present in the environment that might be suspected of causing a disease.
(Soben Peter, 6th Edition, 2017)
- **RATE:**
It is defined as the measure of occurrence of some particular event in a population during a given period of time.
(Soben Peter, 6th Edition, 2017)
- **RATIO:**
It denotes the relation in size between two random qualities. In ratio, the numerator is not a part of denominator.
(Soben Peter, 6th Edition, 2017)
- **PROPORTION:**
It is ratio which expresses the relation in magnitude of a part of the whole. In a proportion, the numerator is always a part of the denominator. It is usually expressed in a percentage.
(Soben Peter, 6th Edition, 2017)

- CRUDE DEATH RATE (CDR):**
 It is defined as the number of deaths per 1000 people in a population in a given year".

$$\text{CDR} = \frac{\text{Number of deaths during the year in a population}}{\text{Mid year population}} \times 1000$$
(Soben Peter, 6th Edition, 2017)
- SPECIFIC DEATH RATE:**
 It measures the number of deaths among people in category per 1000 people in that category in a given year.
(Soben Peter, 6th Edition, 2017)
- CASE FERTILITY RATE (CFR):**
 It represents the killing power of a disease.

$$\text{CFR} = \frac{\text{Total number of deaths due to a specific disease}}{\text{Total number of cases due to the same disease}} \times 100$$
(Soben Peter, 6th Edition, 2017)
- PROPORTIONAL MORTALITY RATE:**
 It is defined as the number of deaths due to a particular cause in a specific age group per 100 or 1000 total deaths.
(Soben Peter, 6th Edition, 2017)
- STANDARDIZED RATES:**
 It is defined as the overall rates adjusted for the effects of differences in population composition.
(Soben Peter, 6th Edition, 2017)
- INFANT MORTALITY RATE:**
 It is defined as the number of deaths among infants under 1 year of age per 1000 live births.
(Soben Peter, 6th Edition, 2017)
- NEONATAL MORTALITY RATE:**
 It is defined as the number of deaths of infants under 1 month of age per 1000 live births.
(Soben Peter, 6th Edition, 2017)
- POST NEONATAL MORTALITY RATE:**
 It is defined as the number of deaths of infants between 1 and 11 months of age per 1000 live birth.
(Soben Peter, 6th Edition, 2017)
- PERINATAL MORTALITY RATE:**
 It is defined as the number of deaths of infants under 1 week of age plus late fetal deaths per 1000 live births.
(Soben Peter, 6th Edition, 2017)
- LIFE TABLE SURVIVAL RATE:**
 It is defined as the proportion of cohort in a life table surviving to a specified age.
(Soben Peter, 6th Edition, 2017)
- LIFE EXPECTANCY:**
 It is defined as the average number of years of life remaining for people who attain a given age.
(Soben Peter, 6th Edition, 2017)

- LIFE TABLE DEATH RATE:**
This is the reciprocal of life expectancy at birth.
(Soben Peter, 6th Edition, 2017)
- CAUSE – SPECIFIC DEATH RATE:**
It is defined as the number of deaths from a given cause during a year per 100000 people in a population.
(Soben Peter, 6th Edition, 2017)
- CAUSE – SPECIFIC DEATH RATIO:**
It is defined as the percentage of all deaths resulting from a particular cause in a given year.
(Soben Peter, 6th Edition, 2017)
- MATERNAL MORATALITY RATE:**
It is defined as the number of deaths resulting from complications of pregnancy, labour and puerperium per 100000 live births in a given year.
(Soben Peter, 6th Edition, 2017)
- INCIDENCE:**
It can be defined as the number of new cases of a specific disease occurring in a defined population during a specified period of time.
(Soben Peter, 6th Edition, 2017)
- EPISODE INCIDENCE:**
It is the rate of occurrence of new episodes of a disease arising in population.
(Soben Peter, 6th Edition, 2017)
- CUMULATIVE INCIDENCE:**
It is similar to incidence but time interval expressed as fixed period.
(Soben Peter, 6th Edition, 2017)
- ATTACK RATE:**
It is an incidence rate which is used only the population is exposed to risk for a limited period of time as in case of epidemic.
Attack Rate =
$$\frac{\text{Number of new cases of a specific disease during a specific time interval in a population}}{\text{Total population at risk during same time interval}} \times 100$$

(Soben Peter, 6th Edition, 2017)
- SECONDARY ATTACK RATE:**
It can be defined as the number of persons exposed to the risk factor developing the disease within the range of the incubation period following exposure to a primary case.
(Soben Peter, 6th Edition, 2017)
- PREVALENCE:**
It is defined as the total number of all individuals who can attribute or disease at a particular time divided by the population at risk of having the attribute or disease at this point in time or midway through the period.
(Last)
- POINT PREVALENCE:**
It can be defined as the number of all the current cases (both old and new) of a specific disease at one point in time in relation to a defined population.

Point Prevalence:
$$\frac{\text{Total number of all current cases (old and new) of a specific disease at a given point in time}}{\text{Estimated total population at the same point in time.}} \times 100$$

(Soben Peter, 6th Edition, 2017)

- **PERIOD PREVALENCE:**

It can be defined as the total number of existing cases (old and new) of a specific disease during a defined period of time expressed in relation to defined population.

Period Prevalence =
$$\frac{\text{Total number of existing cases of a specific disease during a given period of time interval}}{\text{Estimated mid- interval population at risk}} \times 100$$

(Soben Peter, 6th Edition, 2017)

- **RISK FACTOR:**

It is defined as a determinant that can be modified by intervention thereby reducing the possibility of occurrence of disease or other specified outcomes.

(Last)

- **RISK RATIO:**

It is defined as the ratio between the incidence of disease among exposed persons and incidence among non exposed.

(Soben Peter, 6th Edition, 2017)

- **RELATIVE RISK:**

It is the ratio of incidence of the disease among exposed and incidence among non-exposed.

(Soben Peter, 6th Edition, 2017)

- **INCUBATION PERIOD:**

It is the ratio of deaths under 1 year of age in a given year to the total number of live births in the same year. Usually expressed as a rate per 1000 live births.

(Soben Peter, 6th Edition, 2017)

- **BIAS:**

It is a systematic error in design, conduct or analysis of a study which leads us to an erroneous conclusion.

(Soben Peter, 6th Edition, 2017)

- **CONFOUNDING FACTOR:**

It is defined as one which is associated both with exposure and disease and is distributed unequally in study and control groups.

(Soben Peter, 6th Edition, 2017)

- **MORBIDITY:**

It is defined as any departure , subjective or objective, from a state of physiological well being.

(WHO)

- **MORTALITY RATE:**

It is the number of death due a disease in general population or in a community.

(Soben Peter, 6th Edition, 2017)

- **IMPAIRMENT:**

It is defined as any loss or abnormality of psychological, physiological, or anatomical structure or function,

(WHO)

- **DISABILITY:**
It is any restriction or lack of ability to perform an activity in the manner or within the age considered normal.
(WHO)
- **HANDICAP:**
It is defined as a disadvantage for an individual, resulting from an impairment or disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, social and culture factors) for that individual.
(WHO)
- **ORAL HEALTH SURVEY:**
It is defined as surveys to collect the basic information about the oral disease status and treatment needs that is needed for planning or monitoring oral health care programmes.
(WHO)

29. GENETICS IN PEDIATRIC DENTISTRY

- **GENETICS:**
Genetics is a branch of biology concerns itself with the study of the external features of the organism from parents to offspring.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENE:**
Gene is an entire DNA sequence that is necessary for the synthesis of a functional polypeptide or RNA sequence.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CYTOGENETICS:**
Cytogenetics is the chromosomal study of parents in relation to their siblings. The term is also used to describe the chromosomal characteristics of one cell in relation to the other cells in a dividing tissue.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **MOLECULAR GENETICS:**
Molecular genetics is a field of study wherein genes are investigated in relation to their chromosomal 'address', length, composition, etc.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **RADIATION GENETICS:**
Radiation genetics is the study of radiation exposure on the structure and function of different chromosomes and/ or nucleic acids.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **PHARMACOGENETICS:**
Pharmacogenetics is a study of role of genes in modifying the effect of drugs.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **BEHAVIOURAL GENETICS:**
Behavioural genetics explores the genetic basis of normal/abnormal behaviour.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **IMMUNOGENETICS:**
Imunogenetics deals with the hereditary and molecular aspects of immunological reactions within an organism.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **BIOCHEMICAL GENETICS:**
Biochemical genetics involves a study of the genetic mechanisms in biochemical pathways.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **POPULATION GENETICS:**
Population genetics is a study of factors involved in modifying gene frequencies in a given population.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **DEVELOPMENTAL GENETICS:**
Developmental genetics deals with the identification and characterization of genes involved in development of organs.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

- **CANCER GENETICS:**
Cancer genetics is the science of studying chromosomal and molecular basis of malignancies.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CLINICAL GENETICS:**
Clinical genetics is a discipline of correlating chromosomal and/or molecular information with their clinical symptoms.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENETIC COUNSELLING:**
Genetic counselling is the science of making predictions about the occurrence of genetic diseases in the family.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENE THERAPY:**
Gene therapy describes the transfer of a functional normal gene into an organism to correct its genetic defect.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMOSOMES:**
Chromosomes are small discrete nuclear bodies composed of genetic material.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMATIN:**
Chromatin is the complex mix of DNA and protein in the interphase cell.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMATIDS:**
Chromatids are identical copies of a chromosome produced by replication.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENE POOL:**
Gene pool is the sum of all genes present at a given locus in the population.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENE THERAPY:**
Gene therapy is a technology of introducing foreign genetic material into a patient to correct his/her genetic defect.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENETIC MARKER:**
Genetic marker is a distinguishing feature that is used to study the inheritance pattern of genes in cell lines, pedigrees or populations.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **GENOME:**
Genome refers to a complete set of genes characteristic of a species.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **PEDIGREE:**
Pedigree is a diagrammatic representation of a family history.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CODON:**
Codon is a set of three adjacent bases in DNA/RNA that specify an amino acid.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **BANDING:**
Banding is a technique to differentially stain specific regions of chromosome.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)

- **IDIOGRAM:**
Idiogram is the graphic representation of a karyotype. It is based on the size of the chromosome as measured on a scale.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **TRANSCRIPTION:**
Transcription is a process of formation of complementary RNA from a DNA sequence.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **TRANSLATION:**
Translation is a formation of a polypeptide from mRNA sequence.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **SATELLITE DNA:**
Satellite DNA is highly repetitive short DNA sequence that is not transcribed into RNA.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMOSOME DELETION:**
Chromosome deletion is breaking away of a portion of a chromosome.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMOSOME INVERSION:**
Chromosome inversion is the broken part reattaches itself in reverse orientation.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMOSOMAL TRANSLOCATION:**
Chromosomal translocation is when two chromosomes break and exchange their broken segments in reciprocal translocations.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **CHROMOSOMAL DUPLICATION:**
Chromosomal duplication is an over representation of a specific chromosomal regions.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **SYNDROME:**
A Syndrome represents a collection of symptoms and signs caused by a particular genetic makeup.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **ANEUPLOIDY:**
Aneuploidy occurs when the chromosome number of the cell does not match the multiple of its haploid number.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **ALLELES:**
Alleles are alternative forms of a gene at the same locus on homologous chromosomes.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)
- **ASSOCIATION:**
Association describes the occurrence of a particular allele in a group of patients more often than accounted for by chance.
(Paediatric dentistry, shobha tandon, 3rd edition, 2018)