Unit - 5 □ Deaf-Blindness

5.1 Definition, causes, classification, prevalence and characteristics of deaf-blindness

Structure

5.1.1 Definition of Deafblindness

Deafblindness is a unique disability. It is a condition in which a person may have a combination of both hearing and vision impairments of varying degrees, causing severe communication, developmental, and educational needs. Since 95% of the information is acquired through vision and hearing, restrictions in seeing and hearing means significant challenge in accessing information in a clear and consistent way.

5.1.2 Causes

Deafblindness is not caused by a single medical condition. A child can be born deafblind or a person may acquire deafblindness later in life. A child born deafblind as a result of infection, genetic syndrome or birth defect are termed as having congenital deafblindness or early onset deafblindness. Those who acquire deafblindness later in life as a result of trauma or accident, genetic syndrome, ageing or progressive infection are termed as having acquired deafblindness.

It is important to note that a genetic syndrome can result in deafblindness at birth or later in life. This happens because genes might have an immediate effect on developing foetus or its effects may not be apparent until later in life. Congenital or early onset deafblindness

1. **Infections as a cause**

   - Historically one of the most common infectious causes was the Rubella virus commonly known as "German Measles", If the mother is infected with this virus during the first trimester of her pregnancy, the child becomes deafblind
   - TORCH syndrome (Toxoplasmosis, Other agents, Rubella, Cytomegalovirus, Herpes Simplex)

2. **Genetic or chromosomal syndromes as cause**

   - CHARGE syndrome
   - Down syndrome
   - Goldenhar syndrome

3. **Congenital birth trauma or infection as a cause**

   - Premature birth
   - Low birth weight
   - Asphyxia or stoppage of breathing due to obstruction in the air passage
   - Anoxia or lack of oxygen
   - Other trauma or birth injury
   - Trisomy 13: in case of three chromosomes in the 13th pair, child develops deafblindness
   - Hydrocephaly
   - Microcephaly
   - Encephelitis-inflammation of the brain cells
   - Meningitis

Acquired deafblindness

1. **Genetic syndromes as a cause**

   - Usher syndrome: Usually hearing loss is present from birth, and progressive visual impairment from late childhood to early adolescence or even adulthood.
   - Norrie Syndrome: born with blindness and later develop hearing impairment

2. **Accidents or other trauma as a cause**

   Accidents or some traumas such as stroke or cerebral haemorrhage can cause deafblindness in people due to injury to parts of the brain that deal with information processing tasks through sight and hearing.

3. **Ageing as a cause**

   After the age of 50 years, hearing and vrsion impairments become more common and prevalence of sensory impairment increases with age.

Other than these significant causes, malnutrition of the mother during pregnancy can cause premature birth or low birth weight. Infants who survive these conditions are more likely to have mental retardation, cerebral palsy, epilepsy and respiratory disease which may result in deafblindness, Maternal jaundice during pregnancy can also be vital for the developing foetus. High level of bilirubin can harm the developing brain of foetus affecting vision and hearing.

5.1.3 Classification

Deafblindness is an umbrella term which is used for children and adult who may suffer from varying degrees of hearing and visual impairments. Total deafness with total blindness is rare. Thus, deafblind would include children and adult who are

Totally blind with profound hearing loss

- Totally blind with partial hearing loss
- Partially sighted with profound hearing loss
- Partially sighted with severe or partial hearing loss.

Another grouping:

- Congenitally deafblind
- Congenitally blind and later acquire deafness
- Congenitally deaf and later acquire blindness
- Acquired deafblindness, meaning people born with hearing and vision, but later lose both senses to varying degrees. The losses may occur at different times.

5.1.4 Prevalence

Of the total world population, 0.02% people are deafblind. It is estimated that, in India, there are about 450000 deafblind people children and adults.

5.1.5 Characteristics of deafblindness

It is commonly estimated that 95% of the information are gathered from vision and hearing. Individuals who have a hearing or vision loss cannot access the same amount of information without accommodation for their sensory loss. Depending on the age of onset, the characteristic features of deafblind individuals vary from one another, thereby giving them unique characteristics. Wide ranging characteristics are observed among diverse group of people with deafblindness.

- Lack the ability to communicate in a meaningful way
- Have a distorted perception of the world
- Deprived of the information necessary to anticipate future events or the results of his close one's actions
- Deprived of many of the most basic motivations
- Have medical problems that lead to serious developmental lags
- Mislabelled as developmentally disabled or emotionally disturbed
- Forced to develop unique learning styles to compensate for the sensory impairments
- Have extreme difficulty in establishing and maintaining interpersonal relationships

5.2 Effects and Implications of deafblindness on activities of daily living and education

Structure

5.2.1 Effects of deafblindness

5.2.2 Implications of deafblindness on a person

5.2.1 Effects of deafblindness

People who are deafblind experience difficulties in:

- **Finding out information**

This does not only mean restrictions In accessing information through newspaper, books, radio or TV channels, but also missing the experience of seeing the face/hearing the voice of an unfamiliar person, the shape of any object larger than the size of the hand to hold, any object beyond one's reach. Therefore, life experience is severely reduced to build up a store of world knowledge. Without that knowledge what is there to communicate about?

- **Communicating with others**

This is perhaps the most obvious challenge to a person who is deafblind. Each person has individual communication needs and ways of communication. Some use simple gestures, facial expressions or movements of the body. Very few people understand these communications of a person who is deafblind. It becomes difficult for him also to understand other's communication and learn to communicate.

- **Moving around the environment**

The person who is deafblind cannot compensate for vision with hearing, or for hearing with vision. This person is cut off from the world into a world of "invisible silence". Due to constrained information through sensory system, they cannot interpret whatever information they have received, and prefers to remain in a secured position.

5.2.2 Implications of deafblindness on a person

➢ **Vision**

Loss of or restrictions in vision may have different implications on persons with deafblindness. These may be:

- loss of visual acuity meaning difficulty in seeing objects accurately
- loss of visual field meaning limited field of vision
- difficulty in moving eyes when fixating, scanning or tracking objects with eyes
- reduced contrast sensitivity meaning difficulty in seeing the relative difference between the lightness and darkness of objects
- processing problems meaning difficulty in making sense out of what she is seeing
- difficulty in seeing parts of the image or complete picture together
- squint or Strabismus meaning eyes do not work together
- oculomotor problems meaning difficulty in coordinated movements of the eyes to focus or fixate
- Nystagmus meaning involuntary movement of eyeballs. Due to this child fails to see and understand the object clearly.

➢ **Hearing**

We interpret our environment by hearing different information that comes our way and we develop concepts on our own without being taught by others. But, for a child with deafblindness, these inputs are missing; the use of functional hearing also gets restricted due to lack of intervener.

- Sometimes, a child with deafblindness responds to a particular sound and not to other sounds.
- A child with deafblindness may facej problems related to balance due to the structural impairment in the ear.

➢ **Motor and mobility**

Children use their vision and hearing to gather information about their surroundings, to understand their own bodies and their own capabilities of movement. The sight of toysor people and the sounds of voices or objects encourage them to move and discover. Children with deafblindness do not experience this due to loss of or restricted visionand hearing. Sometimes, severe medical problems are associated leading to developmental delays affecting motor and mobility. As a result, they face difficulty in independent exploration which restricts the ability to get a control over the environment. Conceptual development and experience of space and direction remains severely restricted and/or totally absent.

➢ **Behaviour**

A person with deafblindness may acquire behavioural patterns that may not be well understood to others in the society. Some of these are:

- Self-stimulatory behaviours such as eye poking, body rocking, etc.
- May have incorrect manner of eating food
- May have unusual sleep patterns
- May have variety of behaviour patterns to express needs and emotions

➢ **Socialisation skill**

A person with deafblindness has very limited scope of reaching out to others to share his/her needs, events and entertainment.

- They face extreme difficulty in establishing and maintaining interpersonal relationships with others. As they have different ways of communication, they face difficulty In initiating and understanding conversations.
- Due to communication problem, they remain isolated.
- Their isolation also leads to social deprivation

Accessing information, communicating with others and moving around the environment are central to daily living and learning. All three of these depend on each other. Thus, people who are deafblind experience difficulties in their daily living and learning.

➢ **Implications of deafblindness on education**

Educationally, children with deafblindness are isolated because impairments of sight and hearing require attentive and unique educational approaches in order to ensure that children with this disability can have the opportunity to reach their full potential.

If a child with deafblindness has some usable vision/hearing, as many do, his/her world will be enlarged. Many of them have enough vision to move about, recognise familiar people, see sign language at close distance" and read large print. Others have sufficient hearing to recognise familiar sounds, understand some speech, or develop speech themselves. As deafblind children get fragmented and distorted information from their contact with people and environment, it is important to provide access to opportunities that helps in incidental learning as sighted/hearing children do have.

In other words, deafblind children will need to experience activities in real life settings as they are occurring naturally in the environment around them. They will learn best by doing things together by using his tactile, olfactory, kinaesthetic and proprioceptive senses along with whatever residual vision and hearing they might be having. They must be involved in full sequence of the activity. To reduce the impact of dual sensory loss, it is important to develop routines in the life of the deafblind child.

5.3 Screening, Assessment, Identification and Interventional Strategies of Deafblindness

Structure

5.3.1 Screening and Identification

5.3.2 Assessment

5.3.3 Instructional strategies

5.3.1 Screening and Identification

Screening is a service in which people, who do not perceive that they are at risk of, or are already affected by a disease, are asked a question or offered a test, for early identification. The aim of screening is to identify the number of people affected from suspected eye or ear problems. It reduces the risk of developing further complications through early identification; at the same time, it is not a guarantee of prevention, or of diagnosis and cure.

- **Why screening?**

Because deafblind people remains invisible and hidden from everyone, and are often misdiagnosed as mentally challenged or hearing impaired with vision problem, screening helps in identifying the number of population with these dual sensory impairments.

- **Possible outcomes of Screening Process**

i} No problems are observed. The child ls screened again at the next recommended age.

ii} One or more of the high risk conditions have been identified, but there are no observable problems with visual or hearing performance. Parents should be informed of high risk indicators of visual/hearing problems; how to observe visual/hearing performance and/or resources to contact, if vision/ hearing problems are observed at a later date.

iii} A prompt referral to an eye care or ear specialist should be made if:

a) the child has an observable eye condition such as excessive tearing, redness,

eye deviation or misalignment, nystagmus, drooping eyelids, cloudiness of the cornea or pupil, etc. or the child suffers from frequent discharge from ear, does not respond to sounds, etc.

b) the child has observable difficulty with one or more behavioural items.

5.3.2 Assessment

Functional Assessment is a process using observation, screening test, and test analysis to determine an individual's strength and weaknesses in order to plan educationalservices. It should be set in the context of the clinical information including aetiology, visual acuity and hearing thresholds, and the assessor should integrate the whole information to provide a commentary of the child's needs and provide useful recommendations about strategies to meet them. A proper assessment requiro/' family participation and a trans- disciplinary team.

Purpose of assessment: Assessment is the first step that is taken by an educator/therapist to develop a holistic programme for the child. This includ~hild's environment, communication, functional abilities of vision and hearing, cognitive abilities, physical difficulties, socialisation skills, child's likes and dislikes and strengths, and where development is required. It must include an evaluation of the child's communication, cognitive, and adaptive and everyday functioning including behavioural concerns. Assessment is not done once for the child; it is periodic, depending on the condition of the child.

Components of assessment: The assessment format must contain questions relating to child's social and communication domain,sensory/motor domain, functional vrsron domain, and functional hearing domain.

Tools for assessment are:

- Learning through doing: This tool was developed by National Institute for the Visually Handicapped (NIVH) and Blind Peoples association, Ahemdabad in 2002. It is an assessment tool as well as a programme manual.
- Screening checklist for sensory impairment developed by National Institute for the Mentally Handicapped (NIMH)
- Callier-Azusa Scale is a developmental scale specially designed to aid in the assessment of deafblind children. This is composed of 18 sub-scales in five

areas. These are motor development, perceptual development, daily living skills, cognition, ommunication and language, and social development.

- Functional assessment for vision and hearing problem in children developed by Sense International (India). Now this format is used for assessment in camps and community, and in special schools.

5.3.3 Instructional strategies

Instructional strategies for children with deafblindness mean intervention into their world of "invisible silence". The strategies to be taken are:

- **Creation of effective environment,** that helps in acquiring maximum learning, is the prime thing that an educator needs to act upon in a systematic way.
- **Adaptations to the physical environment,** e.g. arrangement of the room, lighting, noise level, location of materials and resources, accessibility to other rooms, etc. are all considerations for environmental modifications.
- **Adaptations in the class programme include**

➢ Allowing more time for the task

➢ Pacing the lesson differently

➢ Ensuring a variety of ways of processing information

➢ Setting up structures that enable achieving smaller steps to the goal

➢ Checking more frequently than usual for understanding

➢ Giving more frequent feedback

➢ Simplifying questions/instructions

- **Modifications to resources and materials**

Materials have to be adapted to allow them to access the information or demonstrate their understanding. This can be done by simplifying resources and materials, using different materials, enlarging print, using Braille prints, provision of support personnel. Despite the adaptations and modifications, some children or adults need higher levels of assistance from the educator/caregiver.

Components of Teaching Strategies

1. **Stability :** It refers to the orderly approaches that would help the child to predict about the environment. Structured enironment supports structured learning. It helps in building confidence in the world of the child.
2. **Routine to create stability:** Routines allow the child to experiment with more confidence in a predictable situation Teaching curriculum is embedded around routine activities.
3. **Role of Motivation:** Activity has to be planned in a way tc motivate the child to act and enjoy with the educator. Think of rewarding to maintain the enthusiasm in the child.
4. **Small Steps (task analysis) in implementing the goal:** Before introducing the whole activity to the child, it should be spreac into small steps. Short steps achieved builds confidence in thr child, and s/he loves to learn the next steps.
5. **Pace of learning:** It refers to the time required and taken by the child in learning any task. Based on the individual needs, ead child has his/her own learning pace.
6. **Rep/titions of the task:** Children with deafblindness may neec more repetitions of an activity due to restricted or limited inpu from the senses.
7. **Presentation of the task:** The task has to be designed in such (way that it is of maximum use. The Teaching Learning Material! (TLM), selected on the basis of the needs as well a! strengths/limitations of the child, should be easily seen, hearc or explored tactually.
8. **Prompts:** Prompts are cues/indicationsglven to the child to perform the task. It requires high level of prompting at the initial stage, and reduced gradually.
9. **Working hand over hand:** Before working hand over hand, rapport with the childhas to be built so that the child must fee secured. The educator generally places his/her hand over the child's hands gently to show him/her to perform a task.

5.4 Fostering Early Communication Development : Methods, assistive devices and practices including AAC

Structure

5.4.1 Fostering Early Communication Development

5.4.2 Modes of communication

5.4.3 Using assistive devices and practices including AAC

5.4.1 Fostering Early Communication Development

Communication is the process of transmitting thoughts, ideas, information and messages from one person to another. For children who have vision and hearing problems, communication may be somewhat different. There are a variety of ways through which deafblind children communicate in early years. These are:

- Facial expression
- Vocalisation such as crying, cooing and babbling
- Change in muscle tone
- Touching and manipulating others
- Body movements
- Assuming positions
- Pointing
- Natural gestures
- Behaving aggressively (biting, pinching, throwing things etc.)

For communication three things are required:

- Someone to communicate with
- Something to communicate about
- A means of communication

It is therefore a two way process: receptive and expressive. It is crucial for the child to gain meaning from experience, learn to anticipate and predict, and learn to control the learning environment.

Receptive communication is the process of receiving and understanding the message**.** It is often difficult to determine how a child with deafblindness receives messages and responds to the communication of his/her family members. Expressive communication means sending message to another person for any need or responding to the message already received.

There are certain strategies to foster early communication development. These are

- Good lighting with the light coming from behind
- Create a good listening environment
- Use of hearing aid/s
- Sometimes song helps the child to anticipate or cooperate
- Enhance sensory information
- Use of scented materials to identify places/activities/persons
- Provide consistency
- Routine activity recommended
- Use "Calendar Box" to denote "beginning of activity" and ''finish of activity"
- Different types of cues and objects are used in fostering receptive and expressive communication.
- **Touch Cue:** Cue is given by touching child's body part related to the activity or action; e.g. touching lips for feeding; waist for nappy change
- **Movement Cue:** Moving body part that relates to an activity; e.g. moving hand to mouth for eating; moving two hands for clapping for recreational play
- **Contextual Cues:** Cues given or taken by the child during an activity or in a situation; smell of cooking food from kitchen, tactile feeling of grass in the garden, taste of sour while licking pickle, etc.

  Cues are helpful in developing anticipation and understanding associations, the

most vital aspect for developing communication skills. However, certain things to be kept in mind while using cues with the children. These are:

- Cues must be used same way each time by every person working with the child.
- Cues must precede a relevant activity for the child.
- Cues have to be different from one another so that the child gradually understands the differences and later on discriminate and relate to particular activity.
- When a child develops understanding and responding to cues, educators may move to next level of receptive communication through **object cues**. Objects are chosen for daily activities that are presented to the child as cues for activities. For example, spoon for eating, soap for bath, ball for play, cane for outing, etc.

5.4.2 Modes of communication

Children with deafblindness use different modes to communicate. These are :

- **Sign Language**

In visual signing, signs are made in front of the person. Tactile signing involves signing with the receiver's hand resting lightly on the signer's hand. This mode is suitable for people who have very little vision or no vision at all.

- **Print on palm** This mode is used where block capital letters are drawn on the palm of the deafblind person's hand, one after the other.

- **Tadoma**

Tadoma is tactile lip reading. The person reading the speech places his/her thumb on the speaker's lips and his/her fingers along the jaw line, touching the speaker's cheek and throat. From this s/he is able to pick up the vibrations of speech as well as the lip patterns.

- **Braille**

Braille is a system of touch reading and writing in which raised dots represent the letters of the alphabet. Both hands are usually involved in the reading process and reading is generally done with the index fingers from left to right along each line.

- **Gestures**

Gestures or non-verbal communication and body language communicate as effectively as words and may be even more effective. Some deafblind children express their needs through vocalisations (crying/cooing/babbling).

- **Symbols**

Communicating with the help of symbols is called symbolic communication. Spoken and written languages are examples of abstract symbols and real objects are examples of concrete symbols.

- **Cues**

A cue is a prompt that is individualised for each deafblind child and is used to encourage a specific behaviour. It is dependent on specific activity or context. For example, tapping a child on chin may be a prompt for "open up mouth" for food. Cues are of different types, e.g. touch, movement, contextual cues, and object cues. Gestures and cues are anticipators to let a deafblind child know what is about to happen.

5.4.3 Using assistive devices and practices including AAC

Augmentative and alternative communication (AAC) means methods of communication which can be used to add to the more usual methods of communication including speech and writing when impaired. AAC includes unaided systems such as signing and gesture, as well as aided techniques ranging from picture charts to the most sophisticated computer technology currently available. AAC strategies assist persons with deafblindness with severe communication disabilities to participate more fully In their social roles including interpersonal interaction, learning, education, community activities, employment, recreation, home management and so on. AAC is just the means to develop the abilities to communicate when, where and what is desired. AAC includes unaided and aided methods.

- Unaided communication: This method does not involve a piece of additional equipment. Body language, gestures, pointing, eye pointing, facial expressions, vocalisations and sign language.
- Aided communication: This method involv~additional equipment, e.g. picture chart, a computer. Adults with deafblindness use the Power Braille attached to the computer.

5.5 Addressing orientation, mobility and educational needs of students with deafblindness

Structure

5.5.1 Problems of Orientation and Mobility for persons with deafblindness and strategies to develop mobility

A child with deafblindness has very limited access to learn skills of Orientation and Mobility. This restricts the child's motivation to explore, initiate interaction or participate in activities. As a resule child becomes dependent on others and becomes passive or engages himself in less meaningful activities.

What is Orientation and Mobility?

Orientation is the ability to locate oneself in one's environment. In absence or significant loss of vision and hearing of a person with deafblindness, orientation requires a skill that is related to using the residual vision and remaining hearing with the sense of touch and smell to establish position in, and in relation to significant objects in the environment. Mobility is defined as action of travelling, going from one place to another, safely and freely. To be mobile, a person with deafblindness should be able to gather and use sufficient information from the environment to avoid hazards, and to reach the destination safely. Orientation and mobility training is important for every child with deafblindness,

The goals of orientation and mobility are

- Enhancement of the sense of orientation
- Development of means of supporting the child to move about and explore the environment freely and safely
    - Development of prerequisites for integration of the child into the community

- Development of sense of independence

Focus of Orientation and Mobility training

The training must include

- Sensory awareness: Gaining information about the environment through smell, touch, movement, and using partial hearing and/or vision
- Spatial concepts: Realising that objects exist even if not heard or felt, and understanding the relationships that exist between objects in the environment
- Searching skills: Locating items or places efficiently.
- Independent movements: Such as crawling, rolling, walking and so on.
- Sighted Guide: Using another person to aid in travel
- Protective techniques: Specific skills which provide added protection in unfamiliar areas.
- Cane skills: Use of various cane techniques to clear one's path or to locate objects along the way.

Sensory Training

Sensory stimuli are environmental clues that enable the child with deafblindness to determine position or direction in respect with other objects in the environment. Systematic instruction is needed to develop the other senses for use in travel and finding things in the environment. While providing sensory training, it is of utmost importance to use the fact sheet prepared for the child after functional assessment of vision, hearing and motor control.

- Touch: The children with deafblindness need to learn the use of their hands and feet to explore the environment, to understand spatial relationship, about texture, temperature and weight. Hands give the idea of diversity of objects, while feet provides idea of position, pathways, changes in ground surface, slope and so on. Often the children with deafblindness are found to be tactually defensive; they should be trained to gain information through their whole body, and be able to use that information through auditory, visual and olfactory senses to determine their current location. For example, developing the tactual sense will help the child in finding a toy he dropped on the floor.

- Smell: Smell is useful for orientation both indoor and outdoor.

  Many physical locations can be easily identified through smell: bakery, tea/coffee stall, gas station. Therefore, smell can be a very good clue for directions. A particular place can also be used as landmark. The children with deafblindness should be exposed to a variety of fragrances; but not all at one time; the educator must link a fragrance with any meaningful activity. For example, familiarising the smell of lemon and then the activities of lemon cutting, sqeezing and making juice. Use of smell can be used for a wash by using a particular soap.

- Residual vision: teaching the child with deafblindness to use his residual vision is important and beneficial for his independent daily living. Use the functional vision assessment sheet for activity plan.

- Awareness of body parts: Knowing the names of body parts and their functions develop mobility skill. Because of absence of incidental learning, the child is shaky in movement. Therefore, slowly the fundamental concepts of body awareness, spatial relationship, different tactual feelings relating to objects and surface, smells of objects and the environment have to be provided. Then the educator can initiate assisted movement with a goal. This would build confidence in the child and s/he would develop enjoyment while moving around.

- Once a child with deafblindness learns to walk independently, there are a number of techniques to be taught to the child. This includes

➢ **Protective techniques** help a person to be safe. The upper arm techniques protects the upper body around the chest and head. It can be used from open door, sharp wall curves, cupboards, hanging objects, tree branches and so on. The lower arm technique protects the lower part of the body near waist level. In both these techniques, hands are used like a bumper.

➢ **Trailing technique** is used to trail wall or other similar furniture or object. Extend arm that is closer to the wall or onject. It helps a person to walk straight, and to detect landmark or find doorways. One gets useful tactual information by trailing.

➢ In **Sighted guide technique,** person with deafblindness holds the arm of the guide just above the elbow and maintains the position one step behind the guide. The sighted guide must know the how to guide a person while movmg.

➢ Cane technique is taught when a child with deafblindness of school age, can walk

and maintain balance. Cane should always be in line with middle of the body and in front of the traveller. The cane is moved from side to side by flexion and extension of wrist with tip touching the ground in each movement. The arm should not move.

The aim of training children with deafblindness in orientation and mobility is to create positive experiences of movements, and instill the confidence of moving and travelling independently.

5.6 Unit Summary

- Deafblindness is a unique disability with a combination of vision and hearing impairment of varying degrees affecting mobility and communication.
- Causes of Deafblindness include congenital and acquired factors.
- After screening and identification, functional assessment of the sensory abilities of the persons with deafblindness by a trans-disciplinary team, educator can adopt instructional strategies.
- Among all the challenges faced by the persons with deafblindness, communication is the most significant. Systematic training helps in developing communication for the persons with deafblindness.
- For orientation and mobility, self awareness and sensory training gives the understanding of self in the environment. Techniques of mobility gives confidence in independent movement.

5.7 Check your Progress with sample questions

Essay type questions

1. How would you define deafblindness? Discuss the implications of deafblindness in a person.
2. What are the causes of deafblindness?
3. What is assessment? Why is important? Discuss the tools of assessment.
4. Describe the need for functional assessment. What would be the strategies of instruction for a child with deafblindness?
5. Explain different modes of communication used by the persons with deafblindness. What are the strategies to enhance communication?

6. What is Orientation and Mobility? Explain the strategies for teaching orientation and mobility to a person with deafblindness
7. Explain the different categories of persons with deafblindness.

Short questions

1. What are the characteristic features of deafblindness?
2. What are the major causes for deafblindness?
3. What may be the possible outcomes of screening?
4. How will you teach orientation and mobility to a student with deafblindness?
5. Discuss the modes of communication used by the persons with deafblindness.
6. Discuss the role of assistive devices and AAC for persons with deafblindness.
7. What are the protective techniques for safe and independent mobility of a person with deafblindness?

Objective questions

1. Find out the true answer:

   i) Congenital Rubella Syndrome means infection of the ..... baby after birth/mother during pregnancy/family gene. (mother during pregnancy)

   ii) Persons with deafblindness depend mostly on ... residual vision/ hearing/touch (touch)

   iii) Socialisation skill can be imparted through individual training/play therapy/ gardening. (play therapy)

   iv) For early intervention of a child with deafblindness, caregiver has to observe the child's behaviour/gesture/total communication. (Total communication)

   v) Before early intervention programme, functional assessment of hearing & vision/neck control/toilet control are necessary. (Hearing & Vision)

2. Find out True or False

   i) Meningitis may damage brain leading to hearing and vision impairment. (True)

   ii) ep children never have vision or hearing problems. (False)

   iii) Deafblind persons communicate through gesture and sign. (True)

   iv) A child with deafblindness requires 1:1 training for future mainstreaming. (True)

   v) Dual sensory loss detaches a person from environment and community, both. (True)