

As per the study of Psychology in std-XI, we have seen that human behaviour enjoys a central place in study of Psychology. There are many factors that affect human behaviour. Out of the many the most-important factor is the body system, its composition, activities, sensations experienced by the human body and in-depth understanding of an individual affects the human behaviour.

Humans gather information about their surrounding external world through the sensory organs. There are various stimuli in the external environment but human being select some liked stimuli and gives complete mental concentration towards it. Human being with their former experiences and education can have in-depth understanding of the stimulus and then behave accordingly. In Psychology, this process of human behaviour is known in a particular sequence as sensation, attention and perception.

In this chapter we are going to study sensation and its types, Meaning of Attention – Nature and Characteristics, Determinants of Attention, Meaning of Perception, Process, Laws of Perceptual Organization and Perception of Depth and Distance.

## **Sensation :**

“An experience regarding a Stimulus through the Sensory organs”. Any type of external stimuli affects sense organs and afferent nerves near the sense organs are excited and this excitation reaches a specific area of the brain.

**Meaning and Definition :** Sensation means "An experience arising out of this is called Sensation. Thus sensation is a change in consciousness that arise out of excitation which reaches the sensory centers in the brain.

Physiologists and Psychologists have divided sensation into three classes and they are as follows:

**(I) External receptors:** The external physical environment is constantly humming with changes in stimulus like light, sound, heat, cold, touch, pressure, chemical air, chemical liquid etc. which affect our different sense organs and hence we can experience different types of sensations.

**(II) Body receptors:** Just like the external environmental components, the human body's internal physiological system is responsible for different sensations. e.g., excitation of the rods and cones for visual sensation excitation of microscopic hair calls for auditory sensation etc.

**(III) Internal receptors:** Internal sensations arise because of changes and movements in the organs within the body and in the internal physiological system. e.g., hunger (in stomach), thirst because of dryness in throat, suffocation, (in lungs), change in blood circulation etc.

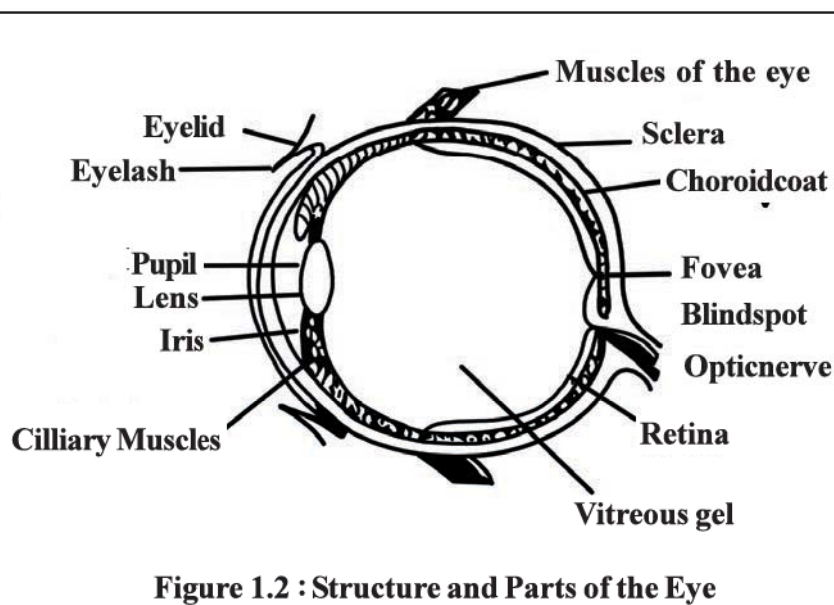
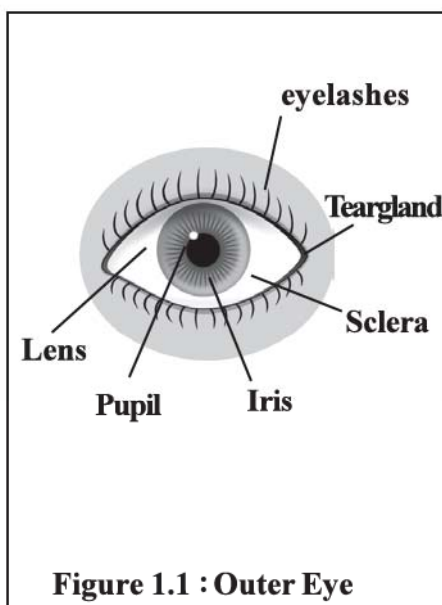
It is observed that different animal species differ in their capacity for different kinds of sensitivity. In the same way, we can observe the differences in sensitivity between different human beings. By special training and experience human beings can not only develop but also increase their sensitivity.

## **2. Types of Sensations :**

There are five types of sensations based on five sensory organs. They are as follows :

- (I) Visual Sensation
- (II) Auditory Sensation
- (III) Olfactory Sensation
- (IV) Gustatory Sensation (Taste)
- (V) Touch Sensation (Skin)

**(I) Visual Sensation :** Out of all senses vision has the most important role in human life. Composition of the eye, its internal organs, the nerves that go towards the brain and the brain are all included in the process of visual sensation. To experience visual sensation presence of light is inevitable and is must.



As per Figure 1.1 the external eye can be seen only when we stand in front of the mirror or when we look at someone else's eye. The white part of the eye is a tough outer layer called Sclera. It is made of white fibres, not transparent and hence can protect the inside of the eye. The black part of the eye called pupil is transparent and it is through it the light- enters the eye and reaches the retina. The grey or blue area which can be seen in the Sclera is called Iris and also the ciliary muscles of the eye. It is because of it that the colour of the eyes can be seen. These ciliary muscles are not interconnected and they do not touch each other. The space between them is called the pupil. The pupil is not any organ but 1/8 inch hole located in the centre of the Iris.

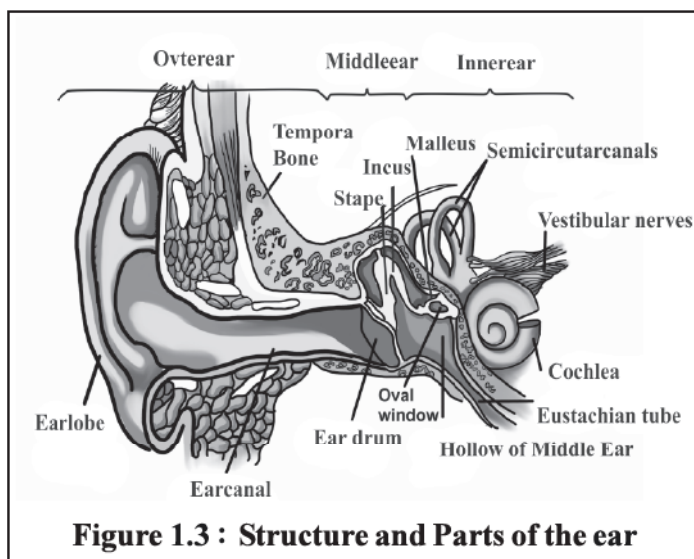
Figure 1.2 shows the physiological and internal structure of the eye. Rays of light emanating from external object enter the eye through the pupil then it reaches the retina by passing through the transparent vitreous humor in the space within the eye which is the area for visual sensation and so because of it one can experience visual sensation, (i.e. can see the object). How much intensity of light will reach the retina will depend on the contraction and expansion of the ciliary muscles. They are very sensitive to the intensity of light rays. When light increases the ciliary muscles get expanded and the size of the pupil becomes small and if light decreases, then the size of the pupil increases. To experience the sensation of near and far objects, retina and ciliary muscles play an important role in visual sensation.

## (II) Auditory Sensation

To be connected with the outer world, an individual should possess adequate auditory sense organ. To understand the direction of sound, its distance and to be able to differentiate between sound waves it is necessary to possess a sharp and active auditory sensation.

Normally a man's ear is capable to hear and distinguish sound waves from 20 to 20,000 Hz i.e. CPS (cycle per second). Sound waves which are more than 20,000 or less than 20 cannot be heard by the human ear.

To understand auditory sensation in details it is divided into three classes :



**(a) Outer ear :** This includes the ear lobe, auditory canal and the ear drum.

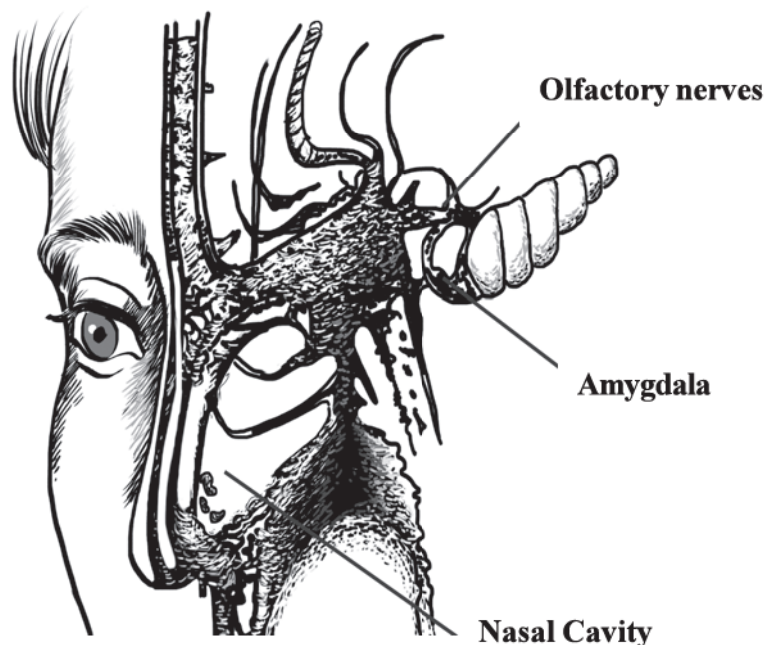
**(b) Middle ear :** The Middle ear is made up of three interconnected bones like hammer, anvil and stirrup. It has also got the Eustachian tube, its second part opens in the throat.

**(c) Inner ear :** It is divided into three main parts : (1) Middle ear (2) Cochlea (3) Semicircular canals

Sound waves from the environment enter through the outer ear into the external auditory canal and in middle ear stimulates the ear drum. Eardrum vibrates with the sound waves and activates the three bones. Vibration of these three bones transmits the concentrated energy to cochlea and sets the fluid inside the cochlea into a wave motion. The fluid waves cause the basilar membrane to move bending its tiny hair cells, the auditory receptors. Neural impulses through the auditory nerve reach the auditory area in the brain and so there is sensation of hearing.

**(III) Olfactory Sensation:** Physical stimuli for smell are molecules of chemical compounds dissolved in air and this smell reaches the olfactory receptors in the nose. Smell receptors are olfactory cilia, hair like structures located in upper portion in a narrow canal of the nasal passage. Olfactory receptors through olfactory nerves are connected with the base of the brain. Each such cell type responds to different kinds of smell and it can be said that olfactory sensation takes place.

There are individual differences in olfactory sensitivity. A strong smell emanating from chemical compounds may arise a sensation in one individual whereas the same smell may not arise any sensation in another individual. Sense of smell shows sensory adaptation because when there is continuous experience of a particular smell, the intensity of this sensory experience decreases and the person gets habituated to it.

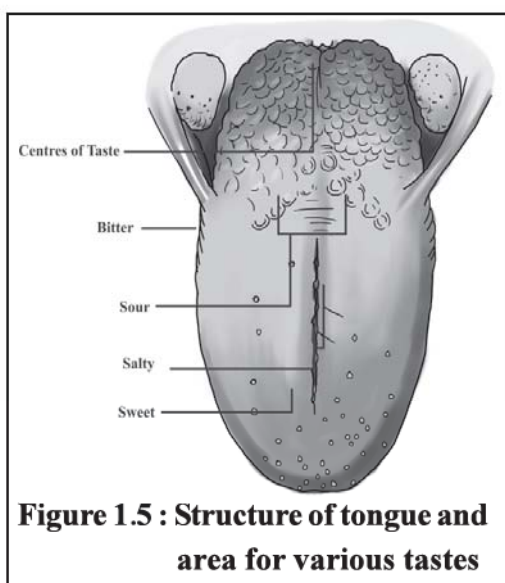


**Figures: 1.4 Structure and Parts of the Nose**

Henning distinguished six types of smell : Spicy, Fragrant, Etherial, Resinous, Putrid and Burnt.

When suffering from cold, a person's olfactory threshold rises, so mild smells are not felt by him. Sense of smell is important in our likes and dislikes for people, choice of food and sexual attractions.

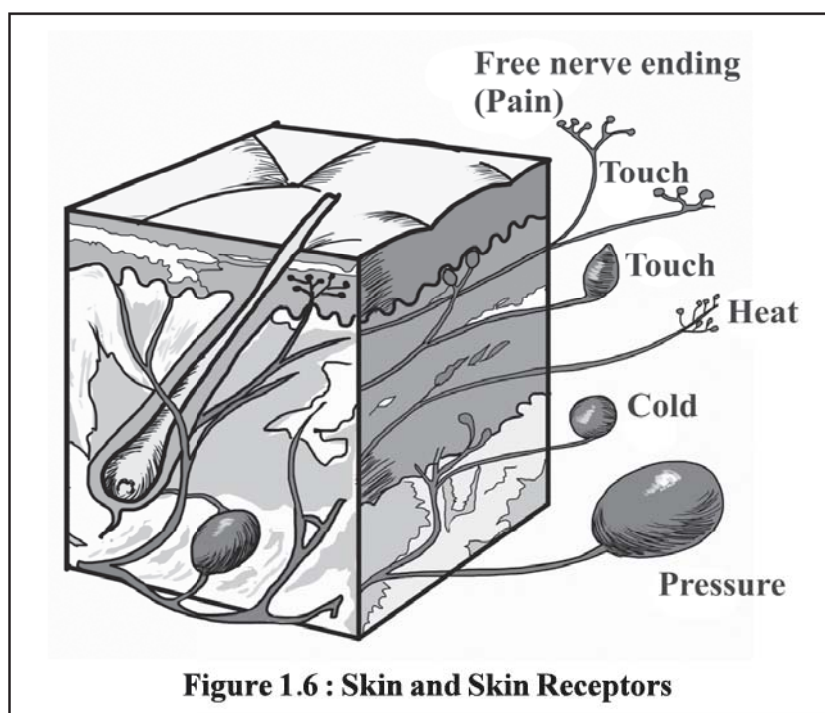
**(IV) Gustatory Sensation:** Physical stimuli of Taste are chemical substances from the external environment which create taste sensation through the tongue. Tongue is involved not only in taste sensation but it is also important in development of speech. It is a muscular organ and attached to the end of the jaw. Taste buds are spread over the entire surface of the tongue and they arouse the experience of taste. They are also called taste receptors.



**Figure 1.5 : Structure of tongue and area for various tastes**

At its base every taste bud is connected with the ends of taste receptors. A substance, which can melt in saliva if put over the tongue, it stimulates taste buds. Its neural stimulation reaches the brain and arouses the experience of taste. There are different areas on the tongue for experiencing different kinds of tastes. Each basic taste has a specific kind of taste buds. Which are divided into four types. Sweet taste buds are on the tip of the tongue, Salty taste buds are on both side of the tongue just behind the tip, further ahead on both sides is sour and buds for bitter taste are located on the back part of the tongue. There are no taste buds on the middle surface of the tongue. As per Ayurvedic view, there are four basic tastes i.e. sweet, salty, sour and bitter but in addition to it there is spicy and astrigent which makes it total six types of tastes.

**(V)Touch Sensation :** We can experience touch sensation because of the layer of skin on the entire human body and they are of four types. They include warmth, cold, touch, pressure, pain etc. As per different studies and experiments performed in psychological laboratories it is found that touch sensation is experienced due to excitation of sensory receptors spread all over the skin of the human body. We can experience touch sensation on the face when the skin of the face is stimulated by touch and it sends message to the brain in the same way sensations from shoulder to waist are send through excited skin



**Figure 1.6 : Skin and Skin Receptors**

receptors via spinal cord to the lateral part of the brain which is the center point of touch sensation and hence we can experience touch sensation. Most of our sensory experiences from the skin are of mixed type because skin stimulus activates more than one type of receptors. e.g., we can experience the sensation of coolness and touch both simultaneously when a drop of rain water falls on the body.

## **Attention :**

### **1. Meaning and definition of attention**

The surrounding world abounds in several kinds of stimuli but at a given time only a few of them can enter the brain via sense. Mind is directed or concentrated on a very few stimuli out of a large hoard of them. This process is called attention. Attention involves physical, bodily and mental adjustment. Attention means single- mindedness or concentration. There cannot be sensation without attention and its a precondition for

sensation to take place. e.g., we can hear the horn of the vehicles of people living in our society but we can immediately recognise the sound and horn of the vehicles of our own family member though we may be inside the house. A few definitions of attention in relation to Psychology are as follows.

“Attention is a process of selection of a definite stimulus and concentrate on it” *H. E. Garrett*

“Attention is mental concentration on selected stimuli” *- James Drever*

From the above definitions we can infer that concentrate on a selected stimuli means attention.

## 2. Nature and characteristics of Attention

On the basis of the above definitions we can understand the nature and characteristics of attention. The following are the characteristics of attention.

**(I) Attention is selective:** It is said that attention is selective, voluntary and intuitive process. At any point of time there can be many stimuli. People or objects in the focus of attention but an individual cannot attend to all. Out of the many stimulus in the environment he/she selects a few of them and attends to it whereas disregards the others. In attention the person selects the stimulus. e.g., while watching a film a person gets attracted towards those things in which he/she is interested. Women viewers—towards the heroine, her clothes, looks and men viewers-towards the hero, his behaviour, clothes whereas children will focus on games and play things.

**(II) Attention is adjustive:** There is physical bodily and mental adjustment in attention and so it helps the weak stimuli to enter the focus of attention. For the process of attention to take place the different parts of the body, muscles, sensory organs etc. make adjustment with each other which is called Psychophysical adjustment. e.g., while looking at objects which are at a distance we contract our eyes or make them small, cover our eyes with hands when there is too much light. Hence we make physical and mental adjustment with our external environment so that we can see properly.

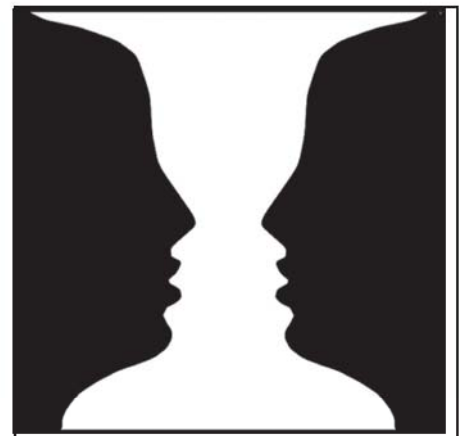
**(III) Attention is explorative:** Attention is purposive. Any stimulus is examined keenly observed, explored, manipulated and then focused on. e.g., when one goes to buy a saree in the shop and if it is liked than we will keenly observe the design, colour and other aspects by focusing our attention to it. Hence when any stimuli attract our attention we completely explore and observe it in detail.

**(IV) Attention is futuristic:** We attend to objects or stimuli which are present before us. But our insight is always futuristic because while attending something keenly, there is always an element of expectation that what would happen next. e.g., when an individual buys a house he is not only aware of the price he is paying in comparison to the surrounding area but also thinks about future infrastructure development and the value of his own property. Hence he also thinks about it from future development point of view. Thus we can say that attention is forward looking or futuristic.

**(V) Attention is Motivational:** In paying attention to an object, event or problem there is always a dynamic factor behind it. There is a motive, desire, aim and a directing force which leads us to attend to it. e.g., In newspaper there are variety of informations, news and advertisements but an individual will read only that which gives motivations, like unmarried boys and girls will focus on marriage advertisements, unemployed will read about different employment information and people interested in cricket or other sports will be attracted towards that kind of news and information.

### (VI) There are focus and fringe area of attention

Environmental objects which are attended to are in focus of attention and objects though present but are not directly attended to are said to be in margin of attention. e.g., when we look at a lighted candle in a dark room then the candle becomes the focus and everything else come in the margin of attention. In the same way when we listen to a singer on the radio then the voice of the singer becomes focus of attention while the music is in the margin of attention. It can be said that focus and margin areas of attention are in constant change. Focus and margin are reversible like the Rubin's Vase. If we look at the black colour we can see two faces and if we focus on white colour we can see the vase. it is very difficult to differentiate between the figure and background because when the face is in the focus vase becomes the background and vice versa.



**Figure 1.7 : Figure of Rubin's Vase**

**(VII) Attention in shifting :** Constant change is an important feature of attention. Unless we are in deep concentration, attention changes from one point to another. Attention keeps on shifting from one object to another and hence it is also called as fluctuation of attention.

### 3. Determinants of attention

Why is our attention directed to a particular object , event or individual? What are the determinants that attract our attention? These questions are of practical importance for advertisers and exhibitioners because their main function is to draw the attention of people and sustain it. There are two types of determinants and they are as follows:

(I) Objective or external determinants (factors)

(II) Subjective of Internal determinants (factors)

**(I) Objective Determinants:** Factors which are related to colour, shape, size of an object or stimulus are called as objective determinants. They are:

**(a) Intensity :** Compared to a weak stimulus a strong or intense stimulus immediately attracts our attention. e.g., 108 emergency ambulance loud and continuous sound attracts our attention in comparison to a door bell. Bright light of 500 watt bulb attracts our attention more than a bulb of 40 watt.

**(b) Size :** Other things being equal a bigger object- compared to a smaller one will instantly draw our attention. e.g., a huge kite hanging in a kite shop or a large capsule hanging in a chemist shop will immediately attract attention.

**(c) Contrast :** Dissimilar or contrasting objects, compared to similar or simple objects play an important role in drawing attention. A negro man going about with a white lady will definitely attract attention in Africa.

**(d) Motion :** Compared to still objects moving objects draw people's attention more quickly. A vehicle in motion rather than stationary one, a flying bird in comparison to one sitting on a branch and a plane in the sky attract more attention.

**(e) Change :** Change also plays an important role in drawing our attention. e.g., A person or a train which is late everyday but sometimes comes before time then they attract everyone's attention. A fan in motion suddenly stops then also it attracts our attention.

**(f) Novelty :** In a normal situation when there is some newness or novelty created then it attracts our attention. e.g., a teacher who dresses up formally everyday, one day comes to school in an informal dress then he becomes centre of attention for all.

**(g) Repetition :** Any stimulus if it is repeated again and again then it attracts our attention. Advertisers make full use of repetition. During election either on radio or T.V. same information will be repeated again and again so that it will draw the attention of the viewers towards it. Thus repetition is an important factor to attract attention.

**(h) Colour :** In the present age, advertisers along with black and white use wide variety of colours to attract the attention of the people. Because compared to black and white coloured objects draw attention faster. For this reason title pages of books and magazines are made bright and colourful so buyers are attracted to buy it.

## **(II) Subjective Determinants**

Physical and mental factors related to people are called as subjective determinants. They are as follows:

**(a) Interest or liking :** A person will always pay more attention to things which he likes or is interested in. Interest is called the mother of attention. A person's attention is naturally drawn to matters in which he has interest. e.g., a musician's attention will always focus on the rhythm. A person interested in cricket is sure to attend to programmes related to cricket. As per Psychologists interest or liking not only attracts attention but also help in maintaining it for long time McDougall calls liking as "covert attention".

**(b) Need :** Need of an individual decides his action or behaviour. Biological needs like hunger, thirst, sleep, sex play a decisive role in attracting attention. A hungry man will attend to eatable things. Experiments have proved that while looking at beautiful pictures, a hungry man will be searching for eatable things. Psychological motives like love, curiosity, pride, security, power also play an important role in attracting our attention.

**(c) Habit :** Attention is habitual. Addiction or habit also attracts attention. A habitual smoker's attention is naturally drawn to cigarette shops or advertisements even at unknown places.

**(d) Learning :** Learning plays an important role in attention. The type of learning or training determines the object of attention. A doctor will attend to diseases and medicines while a construction engineer will attend to building materials and mansions.

**(e) Physical and mental state :** The immediate physical- mental state of a person controls his attention from inside. An injured person's attention frequently goes to his injured limb. Mental tension and worry will also affect our attention.

## **Perception**

### **1. Meaning and definition**

After we feel sensation from our surrounding environment, we attend it and can understand what it is. The process of identifying and understanding an object is called perception. Perception is more complex than sensation as it is directly related to stimulus. When a sensation becomes meaningful it is called perception. Thus perception is the process of attaining knowledge through interpretation of sensation.

The definition of perception as per different psychologists are

"Perception is an organizational process through which we organize and identify objects in their proper form".

**- H.E. Garrett**

“Perception is a process through which we organize and interpret various patterns of stimuli in our environment”.

- **Hilgard, Atkinson & Atkinson**

“Perception is immediate sensation plus its interpretation of an object or situation through sensory organs”.

- **Collins and Drever**

As per the analysis of the above definition it can be said that:

- Perception is a meaningful organization of sensations.
- Perception is a complex mental process.
- We become acquainted with our surrounding world through various sense organs. A specific impression is made by each sense organ.

**2. Process of perception :** Sensation and interpretation are present in perception. When we attend to an object or a person, immediately messages from sense organs start reaching the brain via the spinal cord. The eye, ear, nose etc. send nerve impulses of sensation taking place in them to the brain. The brain processes this information and understanding of the meaning of stimuli arises .

Analytically, sensation and perception can be called separate process but from experimental and synthetic view point, sensation and perception is one continuous process. Thus perception includes sensation, brain activity and understanding arising from interpretation.

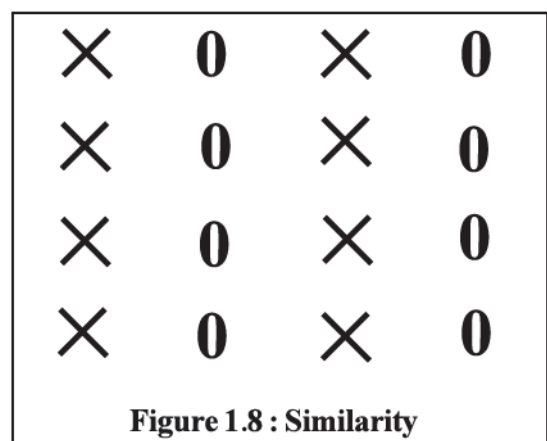
**3. Laws of perceptual Organization :** Organization is an important aspect of perception. In perception, various sensations are organized in a totality and we perceive the object or event as one single unit. This experience in the form of a pattern of sensation is known as perceptual organization.

We experience different primary sensation as one pattern, one group or one unit. On the whole an individual looks at the object as one single unit and not in different parts.

Perceptual organization of physical objects takes place also because of behaviour of an individual. It is important to make one thing clear that “ Perception is not sum total of sensations but something more important than that”. There are many factors that facilitate this organization of perception and are known as principles or laws of perceptual organization.

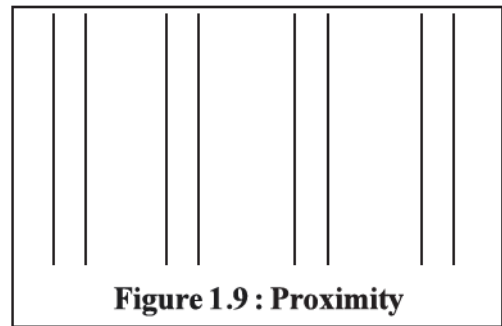
Gestalt Psychologists of Germany mainly Kohler, Koffka and Wertheimer, proposed that brain has a capacity for complete organization of perception. Gestalt Psychologists have stated the some laws of organization as follows :

**(I) Similarity:** Similar stimuli are grouped together. Compared to dissimilar stimuli, similar stimuli are more easily experienced as a group. Similarity between stimuli may be in respect to its size, shape, intensity or quality . e.g., During national festivals many institutions dress up the children in the colours of the national flag like white, orange, green and blue for Ashok chakra, arrange them exactly like a formation of a national flag. In the above figure 1.8 cross and circle are seen as horizontal lines each because of their similarity.



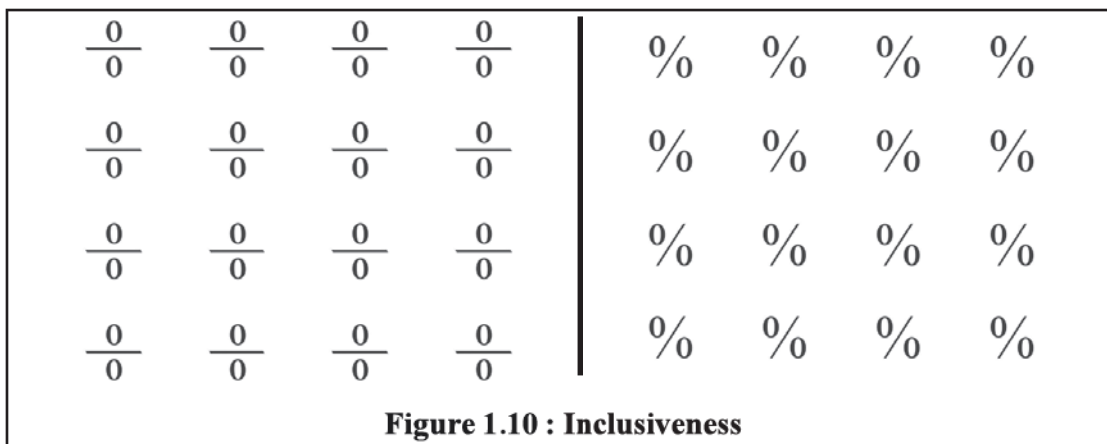
**Figure 1.8 : Similarity**

**(II) Proximity :** Stimuli lying near each other are experienced as a group while objects at some distance from each other of stimuli arising at some interval of time are experienced as separate. In figure 1.9 lines near each other are seen as a single group but lines arranged in pairs are seen as four pairs of lines because of law of nearness of proximity.



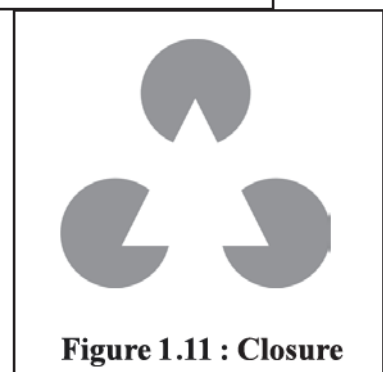
**Figure 1.9 : Proximity**

**(III) Inclusiveness:** In the figure 1.10 it has been observed that lines and dots have different shapes, their existence and meaning are also different but there are perceived as complete lines and dots and are not seen separately but due to law of inclusion are seen as figure of (%) percentage or (÷) division.



**Figure 1.10 : Inclusiveness**

**(IV) Closure :** Even if there is some empty space between stimuli or even if the object appears to be incomplete , there is a tendency to see it as a complete figure. This tendency is called closure. Our brain has the tendency to interpret a stimulus that is incomplete or of empty spaces as a whole stimulus.



**Figure 1.11 : Closure**

**4. Perception of depth and distance :** Perception along with sensation gives a cognitive experience. We perceive the world and the objects there in three dimensions: length, breadth and depth or distance. The perception of depth or distance is a complex process.

We perceive depth or distance on the basis of structure of our eyes and some cues. To understand perception it is important to know about non-visual monocular cues and binocular cues.

**(I) Non - visual cues :** Such cues are based on processes other than vision. They include accomodation and convergence. In these cues , the image falling on the retina through the pupil of the eye is not used.

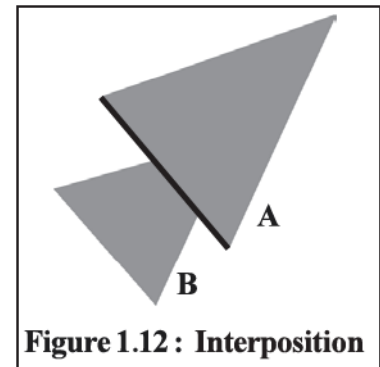
**(a) Accomodation :** To receive the image falling on the retina, there are adjustment movements in the lens. To receive sharp image on retina from distance, the lens contracts, its convexity decreases and the pupil contracts. This accomodation occurs with the help of the ciliary muscles of the eye. Kinesthetic sensation arising from these movements provide cues for distance perception.

**(b) Convergence :** To see a near object, both eyes can move in all the four directions. Even if we close one eye and see with other eye, the eyeball of the closed eye also moves with the open eye in the direction of the object. Thus when we direct our eyes to look at an object near or at a distance, the two eyes always converge simultaneously. This co-operation between eyes is natural and developed from childhood. While changing the focus from near to far or from far to near, convergence persists. Sensations in the eye movements are important cues for interpretation of depth.

**(II) Monocular cues :** Cues that are useful in depth and distance perception where the use of single eye is necessary are called monocular cues. They are perceptual cues operative in vision with one eye and are as follows.

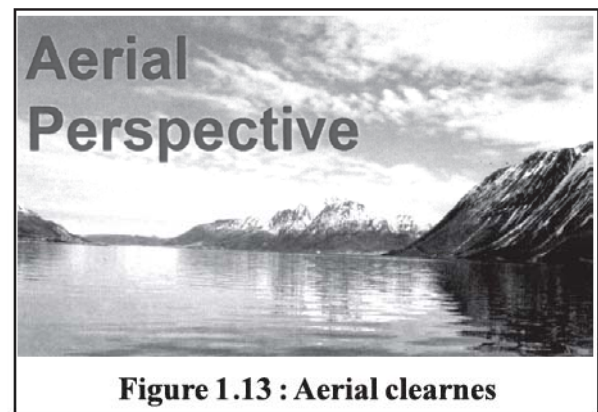
**(a) Interposition or Covering :** When contours of one object partially covers the contours of another object, the object- whose contours are covered is obviously seen as far. This is because of interposition.

Figure 1.12 the contours of triangle B are covered by the contours of triangle A and hence triangle B is perceived to be far or seen as behind.



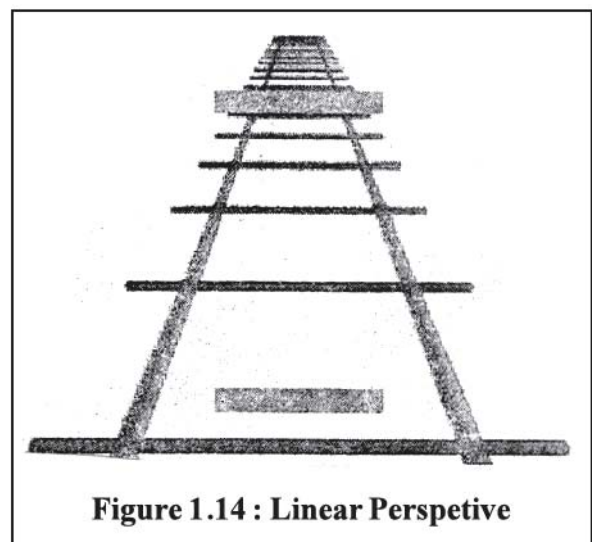
**Figure 1.12 : Interposition**

**(b) Aerial perspective or clearness :** Objects whose details and contours are seen very clear and well-defined are understood to be close. The contours and detail of objects at a distance look grey and hazy because of the atmosphere. Looking down from a tall building, objects that are near look clear but objects that are far look unclear and the scene looks hazy. It is for this reason, that in a stage performance of a drama, a minute net screen is placed in front, so that the scene on the stage looks hazy and effect of distance can be created.



**Figure 1.13 : Aerial clearness**

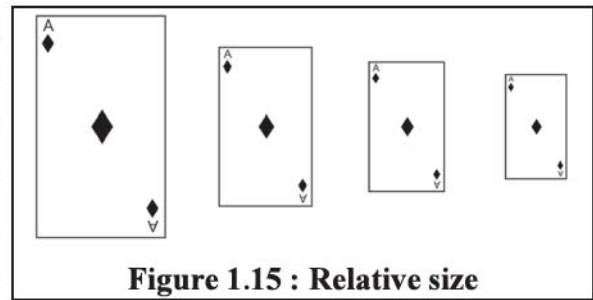
**(c) Linear Perspective :** When parallel lines while receding, merge in retinal image at some point on horizon, it is linear perspective. Figure 1.14 when we stand between the two rails of the railway tracks, we see the two rails converging to a point on the horizon. But do not consider the convergence as a reality. Painters use this cue to indicate relative distance of object in the picture.



**Figure 1.14 : Linear Perspective**

**(d) Light and shade :** Light always travels from top to bottom and have shadows cast by an object either fall below or behind. In this way light and shade can help us to know the distance of the object. When we look at a photograph of moon, the bright area is perceived as hills and the shaded area is looked as valleys or ditches. Painters as well as directors of drama use this cue of light and shade to indicate nearness or distance.

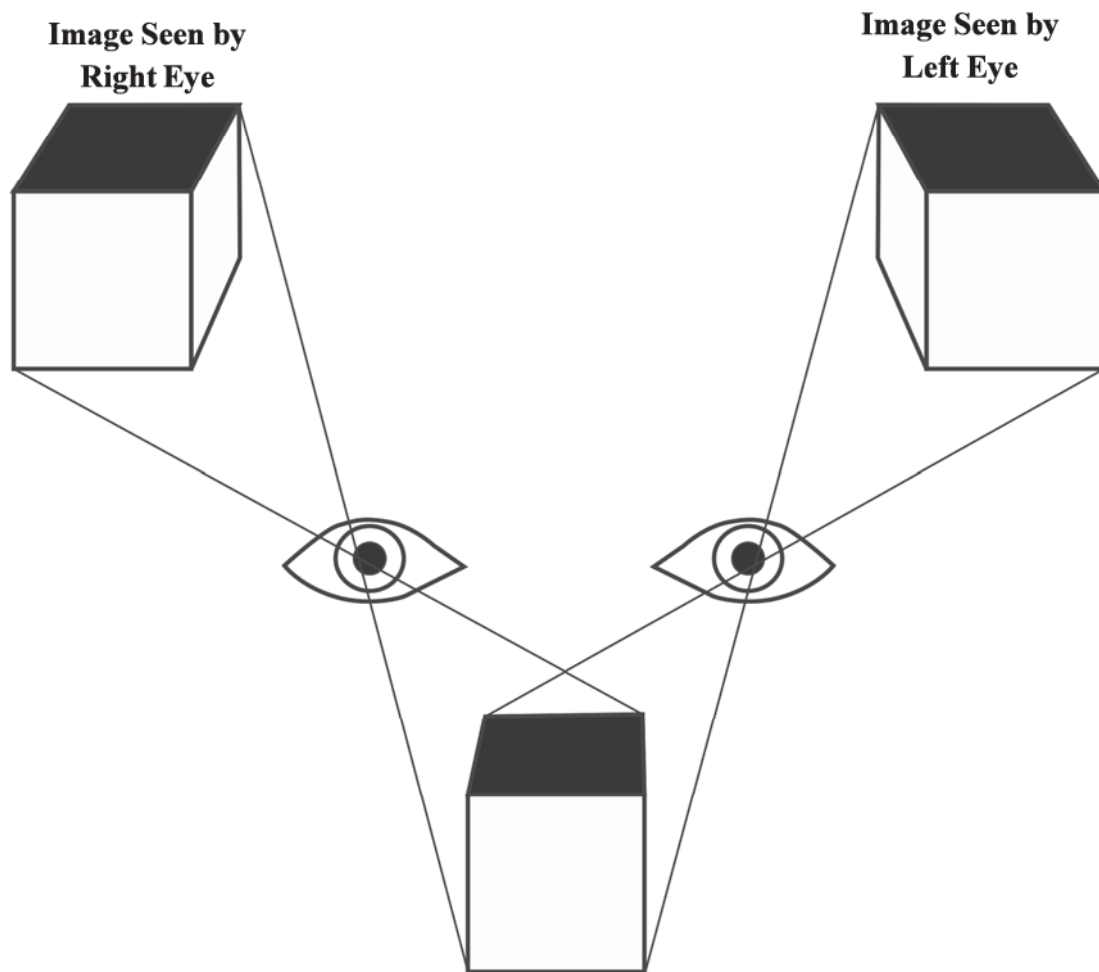
**(e) Relative size of a familiar object :** If an object whose real size is known to us, appears small in relation to surrounding objects or to its known size is perceived to be at a distance. As the objects moves farther away its size decreases and its image on the retina also becomes small. We interpret the retinal image on the basis of familiar size. Retinal images may differ but size of objects remain constant.



**Figure 1.15 : Relative size**

**(f) Texture of surface and gradient :** Gradient is a slow, gradual change in the surface such changes in the surface of ground provide cues for distance. The nearer surface looks full of details and rough. We can see the pits and mounds. But as distance increases the surface of the field becomes more uniform and the texture gets finer. So if the texture looks smoother, it is perceived to be at a distance. Thus the pattern and gradient of surface also help in perceiving depth and distance.

**(III) Binocular cues :** When an object is seen with both the eyes, there are two retinal images of an object yet we perceive a single object. Cues which help in distance perception when both eyes are equally involved are called binocular cues.



**Figure 1.16 : Binocular Disparity**

**(1) Double image :** You look at two objects in space in front of you one nearer and the other far. Focus your vision on the nearer object and try to look at the object that is farther. It will look unclear and will have double images. Normally we are not consciously aware of the two images. But its indication helps in perception of relative distance.

**(2) Binocular disparity :** When we see an object with two eyes, the retinal images falling on the two retinas are not identical. There is a difference between the retina images of the left and right eye because there is a distance of 2 to 2 2<sup>1/2</sup> inches between the two eyes. So there is a difference in location of their fovea. Visual areas of left and right eye differ. Left eye has a visual area a little more on the left and right eye has a visual area little more on the right. This is called binocular disparity. Inspite of this disparity, when we see with both the eyes, their retinal images merge, we do not have double vision but one stereoscopic vision in three dimensions and perceive depth and distance.

Hence to get information about the external world, Sensation, Attention and Perception are important and prominent physical mental process.

## Exercises

### Section - A

**Select the appropriate alternative and rewrite the answer :**

- 1) According to which Psychologists “ Attention is mental concentration on a selected stimuli” .  
(a) C.T. Morgan (b) James Drever  
(c) H.E. Garrett (d) Henning
- 2) What is called as mother of attention?  
(a) Education (b) Need  
(c) Habit (d) Interest
- 3) What is Sensation?  
(a) Awakening (b) Conscious experience  
(c) Knowledge experience (d) Perception
- 4) Which Psychologists has given types of smell?  
(a) J.B. Watson (b) Freud  
(c) Elizabeth Hurlock (d) Henning
- 5) With what is the principle of closure associated?  
(a) Focus of attention (b) Sensation  
(c) Perceptual knowledge (d) Proximity
- 6) Into how many parts is the observation of the external world distributed?  
(a) three: Attention, Sensation, Perception (b) two: Focus, Margin  
(c) four: eyes, ears, nose, skin (d) Only visual perception

- 7) Which Psychologists have given the laws of perceptual organization?
  - (a) Henning, Watson, Wertheimer
  - (b) Freud, James Watt, Kohler
  - (c) Wertheimer, Kohler, Koffka
  - (d) Koffka, Wilhelm Wundt, Kohler
- 8) What are the names of the cells responsible for visual sensations?
  - (a) Nerve cells, hair cells
  - (b) Colour cells, chromosomes
  - (c) Genes, chromosome
  - (d) Rods and Cones
- 9) How many type of sensations are experienced by the skin?
  - (a) three
  - (b) nine
  - (c) two
  - (d) four
- 10) What is Binocular disparity?
  - (a) To see double image with one eye
  - (b) To see slanting with two eyes
  - (c) To have different images on the retina of both the eyes
  - (d) To be unable to see with two eyes

### Section - B

**Answer the following questions in one or two sentences each :**

- 1) What is attention based on ?
- 2) Which Psychologists have given the law of perceptual organization?
- 3) In which part of the tongue we can experience bitter taste?
- 4) What is Proximity in perceptual organization?
- 5) Which word has been used for liking by Macdougall.
- 6) Name the bones of the middle ear.
- 7) What is the range of sound waves can a person experience in auditory Sensation?
- 8) State the cues responsible for depth perception.
- 9) What is the reason of binocular disparity in visual sensation?
- 10) Why does the human skin feel the sensations like heat, cold etc?

### Section : C

**Answer the following questions in round about 30 words :**

- 1) What is sensation?
- 2) What is distraction of attention?
- 3) State the characteristics of attention.
- 4) What is linear perspective? How does it take place?
- 5) Which cues are used by painters and directors of drama for distance and Why?

- 6) What is accommodation?
- 7) State the subjective determinants of attention.
- 8) What is the meaning of focus of attention?
- 9) Explain “Relative size of an object”.
- 10) Explain the statement : “Attention is Motivational”.

#### **Section - D**

**Answer the following questions as asked (in about 50 words) :**

- 1) Explain the meaning and definition of perception.
- 2) Explain the Process of perception.
- 3) Explain in detail auditory sensation.
- 4) Give explanation of different taste centres in taste Sensation.
- 5) State monocular cues and explain any two.
- 6) Give the meaning of sensation and explain it.
- 7) Explain “Binocular disparity”.
- 8) Explain law of inclusiveness in perceptual organization.
- 9) Give the meaning of convergence and explain it.
- 10) What is reversible figure Explain.

#### **Section - E**

**Answer the following questionations in detail ( in about 80 words ) :**

- 1) Explain the process of sensation and its receptors.
- 2) What is attention? Explain its characteristics.
- 3) Explain with examples the objective determinants of attention.
- 4) Explain with diagram laws of perceptual organization.
- 5) Explain in detail visual sensation.

