Understanding Human Behaviour:

1.1 what is psychology, myths and misconception related to psychology

1.2 Methods to study Behaviour - Observations, interview, correlation, and experimental method.

1.3 Perception - , Stimulus and psychological factors, errors in Perception.

1.4 States of Consciousness, Sleep, dreams, drugs, meditation and hypnosis

Baron, R.A (2013) Psychology, NewDelhi, Pearson.

1.1

- What is psychology

Psychology is the study of mind and behaviour. it encompasses the biological influences, social pressures, and environmental factors that affect how people think, act and feel.

Father of Psychology

Wilhelm Wundt is widely considered the father of Psychology.

Wundt is credited with establishing psychology as

often not realised. This has given rise to the misconception that psychology is just common sense and that psychologist charge money just to advice based on. Common Sense. (B) Human behaviour is complex and involves an intricate interaction between thoughts emotions and actions.
Some processes of the human mind can be seen as common sense but psychology tries to understand the reason behind such behaviours.
fail:- Psychology is empirical. it is a Science that tests hypotheses and theories. ∴ it is not just common sense and advice.

3) Psychological illness is caused by a chemical imbalance in the brain.
Chemical imbalances do affect us in some ways. However stating that psychological illness is solely caused by this chemical imbalance is an ~~over~~ oversimplification. Anxiety, depression and Schizophrenia are some psychological disorder that are by chemical imbalances in the brain. However, ~~the~~ imbalance is not the only contributing factor. Environment and genetic influence also play a role

an independent field of study distinct from philosophy and biology.
In 1879, Wundt established the 1st formal laboratory for psychological research at the University of Leipzig.

Myths and Misconception related to Psychology

1) Some people are right brained and some people are left brained.

The most misconception is that one side of the brain is mostly dominant. research show that everyone uses both sides of their brains equally because though most abilities are based in different regions of the brain they can be carried out by the connections formed between different parts.

fact :- different parts of the brain are responsible for different functions and we use both sides of brain equally.

2) Psychology is all about common sense and giving advice

The complexity of Psychology as a subject is

fact:- lifestyle choices and certain patterns of behaviour can influence mental health. Chemical imbalance is just one factor that leads to psychological illness. They arise from a combination of social, environmental genitic and biological factors.

4. Endorsing Psychology means giving up your religious beliefs.

Psychology is unlike many empirical sciences. Your faith and your belief in psychology can coexist together.

Fact:- Psychology does not ask you to forgot your religious beliefs. These can exist simultaneously and vary from person to person.

5. Psychologists can read minds.

Psychology is the study of mind and behaviour it tries to understand our cognitions, emotions and actions and how we react to situations in different environments.

fact:- Psychologists try to understand your situations and issues and guide you to find a solution to these issues. They predict that if you

continue to behave in a certain way or adopt a certain thinking pattern, then you might face certain consequences.

6. Opposites attract

It is a popular belief that opposite attract, that we are like magnets and are driven towards those who are opposite. Not only is this false. Similiarity between partners is more common in ~~re~~ relationships than opposite.

fact:- like birds of the same feather indeed flock together. People usually surround themselves and build friendship and relationships with those who are similar to them.

7. Expressing anger is better than holding it in.

it is usually believed that repressed anger can fester and the buildup is like steam building up in a pressure cooker. A common misconception is that venting: anger will give you relief. A sought of purification. But this is not true. Venting might give you temporary relief but that does not address the core problem of your anger. it is a reinforcement of negative emotion

fact:- The more you vent your anger, the worse you'll feel.

8. People use only 10% of their brain.

The idea that people only use a small portion of their brain leaving a lot of untapped potential is a common theme. On general terms, letting 90% of one's brain go to waste would be a pretty inefficient biological strategy and would surely be selected against across generations. Scientists observe that all areas of healthy brain are active all the time depending on the persons engages in, some areas of the brain become more active than others

9. Psychologists only deal with mentally challenged people.

Psychologists do not only work with mentally challenged people, but a lot of normal people go for therapy sessions who just want to end their emotional and mental stress. Not everyone who seeks a psychologist have a psychological disorder

10. OCD - disorder is just related to organizing things and washing hands

OCD is characterised by intrusive ~~disturbs~~

disturbing thoughts which push people into following time-consuming rituals to calm down. it can involve intrusive sexual thoughts and image which provoke anxiety and the individual tries to ward them off by doing certain rituals.

1.2 Methods to study behaviour – Observations, interview, correlation and experimental method

Mind body dualism

The philosophical view that mind and body are fundamentally distinct kinds of substance or natures.

Rene Descartes a french philosopher and mathematician developed a theory of mind. as an immaterial, non-extended substance that engages in various activities or undergoes various states such as rational thought, imagining, feeling (sensation) and willing.

One of the deepest and most lasting legacies of 'Rene Descartes' philosophy is his thesis that mind and body are really distinct - a thesis now called "mind - body dualism". He reaches this conclusion by arguing that the nature of

mind (ie, a thinking, non-extended thing) is completely different from that of the body (ie an extended, non thinking thing). and therefore it is possible for one to exist without the other

a)

Methods for Studying psychology.

a) Observation
   (i) Systematic observation
   (ii) Naturalistic Observation
b) Interview
   (i) Guided interview
   (ii) Non-Guided interview
   (iii) Clinical interview
   (iv) Stress interview
(c) Experimental method
   (i) independent variable
   (ii) Dependent variable
   (iii) Confunding Variable
(d) Correlation
   (a) positive Correlation
   (b) Negative Correlation

(e) Case History (clinical) Method
- indepth study of individual
- Study cause of peoples anxieties, fear
- info collected from memory of individual, his parents, family etc
- Data include history of diseases, treatment taken etc.

Merits ⇒ gives clinicians an insight into the causes of the problems and Suggest Solution.
productive source of ideas for further investigation by other methods

Demerits ⇒ depends on memory of incidents. Can be inaccurate

(f) Survey method
- Collect data from large audience via questionnaires, checklists etc.
- Problems like study of opinions, attitudes, healthcare needs etc can be studied.
- Commonly employed in Social psychology
- Merits:- large no of data can be collected in short time
- Demerits:- behavior is not observed directly.

a) Observation

The Observation method in psychology is a research technique that involves observing and recording behaviours, events or phenomena in real world settings. it is used to gather data and gain insights into human behaviour, Social interaction and other complex phenomena

- Albert Bandura, a psychologist and learning theorist who 1st proposed Social learning theory can be credited for 1st having noted observation and learning

(1) Systematic Observation

Systematic Observation is a research method used in psychology and other fields to gather data about natural behaviour, Occurances or phenomena it includes Structured, Reduces bias, Quantitative data collection, Replicable, Structured

- Structured - Systametic observation involves following a structured plan and using standardized tools to collect data.
- Reduces Bias - it helps to reduce bias

in experimental designs, which increases the reliability and validity of the data.

- Quantitative data collection - it involves recording observations in terms of numerical categories or structured codes.
- Replicable - The data collected through systematic observation can be replicated because it is based on stated procedures and logical approaches.

(ii) Naturalistic Observation

Naturalistic Observation is a research method in Psychology that involves observing people or animals in their natural environment without interfering with their behaviour.

Advantages :-

* Naturalistic Observation has high ecological validity because it uses realworld environments and participants behave more authentically when they don't know they are being Observed.
* Used to generate new ideas.
* The entire situation can be studied
* More insight is gained.

Disadvantages :-

* Naturalistic Observation can be less reliable because

=> it is easy to test for reliability
=> the interview can take place within a short amount of time.
=> large sample can be obtained within a short period of time.

- limitation

=> Structured interviews are not flexible.
=> Answers from structured interviews lack detail as only closed questions are asked, which generates quantitative data.

(2) Unstructured interview

Unstructured interviews do not use any set questions, instead, the interviewer asks open ended questions based on a specific research topic and will try to let the interview flow like a natural conversation. The interviewer modifies his or her questions to suit the candidate's specific experiences.

=> Unstructured interview are more flexible. as questions can be adapted and changed depending on the respondents' answer.
=> generate qualitative data through the use of open questions.

it's difficult to control other variables, which can make it hard to reveal the study.
* it can also be time consuming and resource intensive
* Not possible to observe all types of behaviour in a natural setting

b) Interview

The interview method is a technique used in psychology to gather data by asking questions to an individual. it can be used in research studies, clinical assessments and therapeutic settings. The interview method can help researchers understand human behaviours and ~~psychotor~~ psychological processes by providing insights into subjective experiences.

(i) Structured interview

A structured interview is a quantitative method ~~where~~ is the research method where the interviewer prepared a set ~~of prepared~~ closed ended question in the form of an interview schedule. which he/she reads out exactly as worded. Structured interviews are also called. Standardized, patterned or planned interviews.

=> They also have increased validity since it gives the interviewer the opportunity to probe for a deeper understanding, ask for clarification and allow the interviewee to steer the direction of the interview.

limitation

=> it can be time-consuming to conduct an unstructured interview and analyse the qualitative data.

=> employing and training interviewers is expensive and not as cheap as collecting data via questionnaires.

=> Interviews inevitably co-construct data through researchers agenda setting and question-framing. Techniques like open-end question provide only limited remedies.

(3) Clinical interview

The Clinical interview is a critical and commonly used assessment procedure in mental health practise that involves a personal exchange between clinician and client designed to gather information needed for diagnosis and treatment.

(2) Dependent Variable

A dependent variable is a variable that is expected to change based on the manipulation of an independent variable.

Or

it is something that depending on other factor.

Eg:- A test score, could be dependent variable because it could be changing depending on several factors such as how much studied.

(3) Confunding Variable.

A confunding Variable that influences both the dependent variable and ~~indepe~~ independent variable. causing a Spurious association

Eg:- Caffein study - In a caffeine study, the experimental group may have slept more. or spent ~~time~~ more time preparing for an exam than control group.

~~Cognitive study~~.

Experimental method features

- most scientific and Objective method used to study cause and effect relationship regarding the nature of Human behaviour.

4. Stress interview

A stress interview is a type of job interview in which the interviewer intentionally creates a stressful or uncomfortable situation for the candidate. The goal of a stress interview is to see how the candidate handles stress, pressure and unexpected or uncomfortable situations. This type of interview is often used for positions that require ability to perform well under stress

C. Experimental Method

(1) Independent Variable

the independent variable in psychology is the characteristic of an experiment that is manipulated or changed by researchers, not by other variables in the experiment

Eg:- In an experiment looking at the effect of studying on test scores, studying would be the independent variable.

Merits of Correlation
- ⇒ Measures relationships [strength & direction]
- ⇒ Predict outcomes
- ⇒ explore complex relationships
- ⇒ easy to use and interpret
- ⇒ Generate Hypotheses

Demerit
- ⇒ do not prove causation
- ⇒ limited to linear relationship
- ⇒ Vulnerable to outliers
- ⇒ Cannot account for confounding variables
- ⇒ Might not explain underlying mechanisms

D Correlation

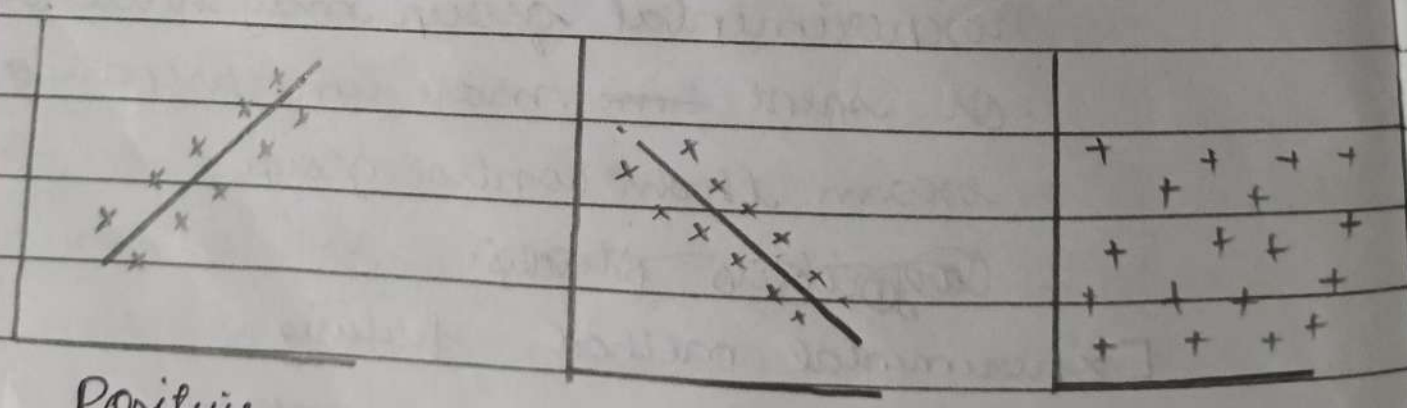
Correlation is the statistical technique that is used to measure and describe a relationship between two variables.

(1) Positive Correlation

A positive correlation is when two variables move in the same direction ie when one variable increases, the other also increases as well.

(2) Inverse Correlation

A negative correlation is when two variables have an inverse relationship, meaning that as one variable increases, the other decreases. it is represented by correlation coefficient between 0 and -1. with a stronger relationship closer to -1



Positive correlation | Negative correlation | No correlation

Scientific method of Psychology.

a) Accuracy
b) Objectivity
c) Scepticism.
d) Open mindedness.

These four concepts are essential principles in scientific research, including psychology, to ensure reliable and valid knowledge. Together these principles ensure that psychological research remains rigorous, reliable, and capable of evolving as new information emerges.

a) Accuracy :- This refers to the precision and exactness in collecting, measuring and reporting data. In psychology, accuracy is crucial for drawing valid conclusions. Researchers must ensure that their methods and instruments measure what they are supposed to measu and report findings without exaggeration o error.

b) Objectivity :- Objectivity involves being impart and avoiding personal biases. In psychological research, scientists aim to maintain neutrali and let the data speak for itself. Objectivity

ensures that personal feelings, beliefs or expectations do not distort the interpretation of results.

c) Skepticism: Skepticism is the practise of questioning the validity of claims until there is sufficient evidence. In Psychology, researchers critically examine theories and findings, challenging assumptions and seeking solid proof before accepting conclusions. This prevents the acceptance of false or misleading ideas.

d) Open-mindedness:- Open mindedness means being receptive to new ideas and willing to revise beliefs when presented with new evidence. In psychology, it encourages scientist to consider alternative explanations and remain flexible in their thinking, which is important for the advancement of knowledge.

Different Schools Of Psychology

a) Structuralism
b) Functionalism
c) Psychosexual development

d) Psychoanalysis
e) Behaviorism
f) Humanism

A Structuralism

* founder :- Wilhelm Wundt and Edward Titchener. Titchener
* Focus :- Structuralism was the 1st major Scho of thought in psychology, aiming to breakdown mental processing into their most basic components.
* Method :- The main method used was introspect where individuals reported their conscio experiences in detail while reacting to stimuli. This was done to analyze the structure of the mind.
* Goal :- Structualism wants to identify the building blocks of the mind (Sensation feelings, and, images) to understand how these elements combine to form complex mental experiences.
* Criticism :- it was criticized for its reliance Subjective introspection, which was seen o

unscientific and its limited focus on conscious experience, neglecting unconscious process or real world applications.

B Functionalism

- founders : William James [influenced by Charles Darwin's theory of evolution]
- Focus : functionalism emerged as a reaction to Structuralism. Rather than analyzing the components of the mind, functionalists focused on the purpose and ~~functionalists focused on~~ functions of mental process - how mental activities help an organism adapt to its environment.
- Key idea : Functionalists were interested in understanding how behaviour and mental processes promote survival and reproduction. They exploded topics like emotions, habits and learning.
- ✗ Unlike structuralists, functionalists studied real life behaviours and how the mind functions in everyday situations

opening psychology to areas like child development, education, and behavioral differences.

- Influence: Functionalism paved the way for applied psychology and influenced later schools like behaviourism and educational psychology.

C. Psychosexual Development.

Freudian Theory.

- founder: Sigmund Freud.
- focus: Freud's theory of psychosexual development outlines how personality develops through a series of stages in early childhood, where different parts of the body are the focus of pleasure seeking energy.
- Stages
  - Oral stage (0-1 year). focus on oral pleasure like sucking and biting. Fixations may ~~dev~~ lead to oral habits in adulthood, like Smoking or Overeating.
  - Anal stage (1-3 years). focus on control over bowel and bladder movements.

fixations can result in personality traits related to control and adherence or messiness

* Phallic Stage (3-6 years): Focus on the genitals. Children experience the Oedipus or Electra complex, where they have unconscious sexual desires for the opposite-sex parent and feeling of rivalry with the same-sex parent
* Latency Stage (6-puberty): Sexual impulses are repressed and children focus on developing social and intellectual skills.
* Genital Stage (puberty onwards): if earlier stages are successfully resolved, individuals develop mature sexual interests and seek out relationships.

• Criticism

Freud's theory has been criticized for its lack of scientific rigor and overemphasis on sexuality in childhood. However it has had a profound impact on understanding the influence of early experiences on personality development

D Psychoanalysis

* founder: Sigmund Freud ⇒ Psychoanalytic theory
* focus : Psychoanalysis emphasizes the role of the unconscious mind in shaping behavior and personality. Freud believed that human behaviour is influenced by unconscious desires, conflicts and early childhood experiences.
* Key concepts :- ID, ego, and superego. these are the three parts of the psyche.

ID - it is the most primitive part of the mind. it is present from birth and is driven by the pleasure principle, seeking immediate gratification of basic desires, urges and needs like hunger, thirst and sex
it operates on unconscious mind. it is impulsive and demands satisfaction, regardless of consequences.

Eg:- if you are hungry, the id says "eat now" without thinking about where or how appropria it is.

EGO - the ego is the rational and pragmatic part of the mind, acting according to the reality principle. its role is to mediate betw

the desires of the id and the restrictions of the real world finding socially acceptable ways to meet the id's demands.
The ego operates mostly in the conscious and preconscious mind. Constantly balancing immediate gratification with long term consequences.
Eg:- if you are hungry and the id urges you to eat, the ego finds a realistic solution like waiting until mealtime or finding an appropriate place to eat.

SUPEREGO - The Super ego represents the moral conscience and contains internalized social rules, values and ideals learned from parents and authority figures. it strives for perfection and imposes guilt or pride depending on whether actions align with these internalized standards.

The superego operates at both conscious and unconscious levels, pushing us toward ideal behavior and making judgement about right and wrong.

Eg:- when tempted to do something wrong, like stealing food because you're hungry, the Superego might induce guilt, reminding that stealing is morally unacceptable.

e Behaviourism.

* founders : John B Whalson and B.F. Skinner (influenced by Ivan Pavlov).
* Focus : Behaviourism emphasizes the study of observable behaviour rather than internal mental states. Behaviorists argue that all behaviour is learned through interation with the environment.
* Key Concepts
  - Classical Conditioning :- Ivan Pavlov discovered that behavior can be conditioned by associating a neutral stimulus with a significant one, resulting in a learned response. Pavlov's experiments with dogs (the bell and food association) are foundational.
  - Operant Conditioning :- B.F. Skinner expanded on behaviorism by focusing on how behaviour is shaped by reinforcement and punishment. Positive reinforcement encourages behaviour, while punishment discourages it.
  - Environmental Determinism :- Behaviorists believe that individuals are shaped by their environm and that behavior can be controlled or changed by altering the environment.

* Therapy: Behavioral therapy focuses on changing maladaptive behaviors through techniques like systematic de-sensitization for phobias or token economies in schools or institutions.
* Criticism: While behaviorism contributed significantly to the field, it has been criticized for ignoring internal mental processes like thoughts, emotions and motivation, which many argue are important in understanding Behaviour.

f. Humanism.

* Founders :- Carl Rogers and Abraham Maslow.
* Focus :-
  - Emphasizes free will, personal growth and Self actualization
  - focus on the whole person rather than pathology or behaviors alone.
  - Sees individuals as inherently good and capable of achieving their potential.
* Key Concepts
  - Self actualization - The process of realising one's full potential
  - Unconditional Positive Regard - The idea that people thrive when they are accepted without judgement

- Maslow's Hierarchy of Needs - A pyramid of human needs, from basic physiological needs to Self-actualization at the top.
- Holistic approach: Considers the entire individual including emotions, behaviours and experiences.

* Therapy:
  - Client-Centered Therapy: Focuses on creating a non judgmental, empathetic environment where clients can explore their feelings and grow.
  - Core principles in Therapy: Empathy, genuineness and unconditional positive regard.

* Criticism:
  - Lack of Scientific Rigor: Critics argue that humanism lacks empirical support and measurable outcomes compared to other approaches.
  - Overly idealistic: Some say humanism is too optimistic about human nature and overlooks negative aspects of behavior and mental health issues.

* According to humanistic psychology, the belief that all human beings are good.

Maslow's Hierarchy of Needs

Self actualization:- morality, creativity, spontaneity, acceptance, experience purpose, meaning and inner potential

Self-esteem :- Confidence, achievement, respect others, the need to be an Unique individual

Love and Belonging :- Friendship, family, intimacy Sense of connection

Safety And Security :- Health, employment, property, family and Social ability.

Physiological needs :- Breathing, food, water, Shelter, clothing, sleep.

1. BASIC COGNITIVE PROCESS.

These are foundational mental functions that support more complex thought. They are fundamental for day-to day functioning and typically involve automatic, unconscious processes.

@1 *Attention:- it is a state of response to a stimuli or event.
attention is the process by which the brain selectively focuses on certain stimuli or information while filtering out others, enabling us to react effectively to what's important in a given situation
The attention are of 4 types
a) Selective attention :- Selective attention is the ability to focus on one particular stimulus or task while filtering out irrelevent information it helps us prioritize important information when there are multiple stimuli competing for our attention.
Eg:- Listening intently to a friend in a ~~room~~ crowded restaurant while ignoring other conversations around you.

123. Perception - Stimulus and psychological factors, errors in Perception.

Cognitive Psychology

Cognitive Psychology is a branch of psychology focused on understanding mental processes such as perception, memory, thinking, problem solving and language.

it examines how people acquire, process, store and retrieve information and how these mental processes influence behavior.

the Six areas of 6 cognitive psychology are [memory, learning, intelligence, language, thinking and problem solving].

Perception, Memory, Attention, Problem Solving, language and decision making

Cognitive Psychology can be thought of as encompassing both basic and higher level cognitive processes, each addressing different types of mental health

① Basic Cognitive Processes
② Higher level Cognitive Processes.

b) Divided attention :- Divided attention refers to the ability to process and respond to multiple tasks or stimuli simultaneously. This is often associated with multitasking, through research shows that divided attention can reduce performance efficiency in tasks
Eg:- Writing notes while hearing songs..

c) Sustained attention :- Sustained attention also known as Vigilance, is the ability to maintain focus on a specific task or activity over a prolonged period.
Concentration involves the capacity to concentrate and remain focused without becoming distracted over time. Sustained attention often requires mental effort and can lead to fatigue if maintained for too long.
Eg:- Reading a book for an extended period.

d) Executive Attention :- Executive attention involves the management of cognitive processes to control and regulate thoughts and actions - it is associated with higher-order functions like planning, decision making, and problem-solving.

eg:- deciding how to allocate time effectively among multiple tasks while avoiding distractions

Selective attention:- focus on specific stimuli while ignoring others

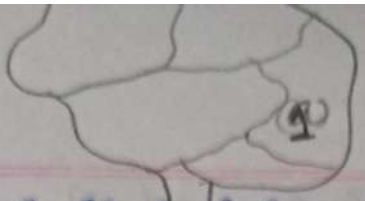
Divided attention :- distributes attention across multiple tasks or stimuli.

Sustained attention :- Maintain focus on a task over a prolonged period.

Executive Attention :- Manages cognitive resources and regulates thoughts and actions for higher level tasks.

@2* Sensation :- Sensation is one of the most fundamental Cognitive processes and refers to the initial detection of stimuli through our Sensory organs. it involves the activation of Sensory receptors - such as those in our eyes, ears, skin, nose and tongue - which send Signals to brain for further processing.

Sensation is about how we physically experience the world through.



a) Vision : Occipital lobe of brain [Back of the brain]
light enters the eyes, activating photoreceptors in the retina, which send electrical signals to the brain, leading to visual perception.

b) Hearing : Temporal lobe [sides of brain near the ears]
Sound waves vibrate the eardrum and are converted into neural signals by hair cells in the cochlea. These signals travel to the brain to interpret sounds.

c) Touch : Parietal lobe [Top middle part of the brain].
Pressure, temperature, and pain are detected by receptors in the skin and other tissues, sending sensory data to the brain for interpretation of touch.

d) Taste : Parietal lobe => Gustatory Cortex
Chemical compounds in food interact with taste receptors on the tongue, allowing us to experience flavors like sweet, salty, sour, bitter and umami.

e) Smell : Temporal lobe
Molecules in the air bind to olfactory receptors in the nasal ~~co~~ cavity, sending signals to the brain to process different scents.

Different lobes Of Brain

1. Occipital lobe [Vision]
   - location : back of the brain
   - function : Primarily responsible for processing visual information
   - Relation to Sensation : The Occipital lobe receives and interprets input from the eyes through the primary visual cortex. The lobe help us recognize shapes, colors and movement. Damage to this area can lead to visual impairments or blindness.

2. Temporal lobe [Hearing Smell and Memory]
   - location : located on either sides of the brain near the ears.
   - function : involved in processing auditory information language, comprehension and memory.
   - Rtn to Sensation : The primary auditory cortex located in the temporal lobe, processes sounds and helps in recognizing and interpreting auditory signals. The ~~ear~~ temporal lobe also handles olfactory (smell) sensations and is connected to regions important for long term memory.

linking senses to past experiences.

3. Parietal lobe [Touch, Pressure, Pain, Spatial Awareness]
   - location - Top middle part of the brain
   - function - Processes sensory information related to touch, temperature, pain and spatial awareness.
   - Relation to Sensation - The primary Somatosensory Cortex, located in the parietal lobe, processes tactile sensations from the body, like pressure, temperature and pain. it also plays a crucial role in Spatial Orientation and body awareness. helping us understand where our limbs are in space.

4. Frontal Lobe [Motor Control and Higher Functions].
   - location: front of the brain
   - function: Involved in voluntary movement, decision making, problem-Solving, and higher Cognitive functions.
   - Relation to Sensation:- Although the frontal lobe is more ~~an~~ associated with motor control and decision making, it also interacts with sensory inputs to guide movement (through the primary motor cortex) and process responses to sensory informatio influencing behavior and action based on sensory feedba

Gustatory Cortex :- Taste

- located within the insula and frontal operculum regions, which lie at the junction of the frontal, parietal and temporal lobes.
- This region processess taste Stimuli and is found deep in the insula a small region of the brain located within lateral Sulcus. fold that seperates parietal and temporal lobes.
- Signals from taste receptors on the tongue are sent to the brainstem and then relayed to the gustatory cortex for interpretation.

@3 * Perception :- it is a fundamental cognitive process in psychology, reffering to the way we interpret and Organize Sensory information to make Sense of the world. ~~while Sensation~~ ~~emotions~~.

Perception is how our brain processes and interprets those stimuli to form a meangful understand our environment.

=> interpretation of stimuli

after raw sensory data is received by sensory organs, the brain processes this information, recognizing patterns

Depth perception
perceptual constancy
attention & perception

Page No. 37
Date: / /

and assigning meaning.

for eg:- when we see an object, we don't perceive colour and shape we recognize it as "car" or "tree".

=> TOP Down and Bottom up processing.

Bottom up processing:- Starts with sensory input where information is built up from the smallest sensory details and ~~proced~~ processed to form a complete perception.

- bottom up processing relies entirely on the incoming stimuli, without the influence of prior knowledge or expectations
- Information is processed in a hierarchial manner, moving from simple features (like lines & colors) to more complex forms (like shapes & objects).

Top Down Processing:- This is a cognitive process. where perception is driven by the mind's expectations, prior knowledge, and experiences, guiding the interpretation of sensory information

- it relies heavily on memory and past experience to shape our understanding of what we perceive.

Stages of Perception:

- Selection:

Our brain cannot attend to all stimuli, so we

Unconsciously or consciously select some stimuli and ignore others. The selected stimulus becomes the "attended stimulus".

2. Organization
Stimuli are arranged mentally in a meaningful pattern. It occurs unconsciously.

Gestalt Principles.

Gestalt Principles are a set of perceptual laws that explain how humans tend to organize visual information into meaningful wholes. These principles suggest that our brains are wired to perceive patterns and groups rather than individual elements

- Proximity - Objects that are close together are perceived as belonging to a group.
- Similarity - Objects that are similar in appearance (eg colour, shape, size) are perceived as belonging to a group.
- Closure - We tend to perceive incomplete figures as complete by filling in the missing parts.
- Continuation - We prefer to perceive continuous lines or pattern over discontinuous ones.

- Figure - ground : we perceive objects as distinct from their backgrounds.
- Symmetry :- we tend to perceive symmetrical figures.

Stimulus And Psychological factors

Stimuli

Stimuli refers to any external, or internal event, object, or condition that elicits a response from an individual. Stimuli are the sensory inputs that brain process and interprets, Serving as the foundation for perception learning, memory and other cognitive functions. Stimuli can be visual, Audilory, tactile, olfactory, gustatory or even internal thoughts or emotions.

- External Stimuli :- Sound, Objects, Sights, Smell or Taste
- Internal Stimuli :- Thoughts, feelings, Physiological.
- Unconditioned Stimulus :- A Stimulus that naturally and automatically triggers a response without prior learning (eg:- food causing Salivation).
- Conditioned Stimulus :- A previously neutral Stimulus that after being paired with an Unconditioned stimuli

triggers a learned or conditioned response.
eg:- the sound of a bell causing salivation in Pavlov's dogs

* • Proximal stimulus: The stimulus as it is directly experienced by the senses.
eg:- pattern of light on the retina.
• Distal Stimulus : The actual object or event in the environment that is causing the proximal Stimulus (eg:- A tree that you are looking at)
* • Controlled Stimuli : Stimuli that are manipulated or structured by the experimenter in a laboratory Settings to study specific Cognitive processes.
• Natural Stimuli : Stimulus encountered in everyday life that naturally occur in the environment, without experimental manipulation.
* • Discrete stimuli : Stimuli that occurs in distinct Seperate units (eg:- flashing lights, beeps).
• Continuous Stimuli : Stimulus that change over time in a continuous manner (eg:- a smooth gradient of light intensity or Continous sound).

Pavlov's Dog Bell experiment

⇒ Pavlov's famous study on classical conditioning

⇒ This experiment demonstrated how animals can learn to associate a previously neutral stimulus with an automatic or reflexive response.

1) Unconditioned Stimulus (UCS):
This is something that naturally and automatically triggers a response. In Pavlov's experiment food was the unconditioned stimulus because it naturally caused the dogs to salivate.

2) Unconditioned response (UCR):
The automatic response to the UCS.
eg:- the dogs salivating when they see or smell food is an unconditioned response.

3) Neutral Stimulus (NS)
This is a stimulus that initially has no effect on the desired response. In Pavlov's case, the bell was the neutral stimulus, as it initially did not cause the dogs to salivate.

4) Conditioned ~~response~~ (CS) Stimuli (CS)
after the repeated pairings with the unconditioned stimuli (food), the neutral stimuli (bell) becomes a conditioned stimuli. In the experiment, after repeatedly ringing the bell.

just before presenting the food. the dogs began to associate the sound of the bell with the presentation of food.

5 Conditioned Response (CR)
Once conditioning has taken place, the previously neutral stimulus (Now the CS) elicits the same response as the unconditioned stimulus. In this case, the dogs salivated (conditioned response) when they heard the bell, when no food was presented.

Before conditioning
- food (UCS) ⟶ Salivation (UCR)
- Bell (NS) ⟶ No response.

During conditioning
- Bell (NS) + food (UCS) ⟶ Salivation (UCR).

After Conditioning
Bell (CS) ⟶ Salivation (CR)

Psychological factors

Psychological factors refers to the internal processes that mediate the relationship between a stimulus and a response.

- Perception - How we interpret and organize sensory information
- Attention - The process of focusing on specific stimuli while ignoring others.
- Cognition - Mental processes such as thinking, reasoning, and memory.
- Emotion - feelings that influence our behaviour and thoughts.
- Motivation - The internal drive that energizes and directs behaviour.

examples of Psychological factors.

- a person might perceive a shadow as a threat, leading to a fear response.
- A student might focus on a textbook while ignoring distractions in the ~~class~~ classroom.
- A positive memory might motivate someone to work harder towards a goal.

Interaction between Stimulus and Psychological factors.

The interaction between Stimuli and Psychologi factor is complex and multifaceted.

for eg

- a strong Stimulus might override psychological