

Patrician College of Arts and Science

Department of Psychology

General Psychology - I

SAT1A

Odd Semester

Presented By

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UNIT - 3

CONSCIOUSNESS

CONSCIOUSNESS

- Consciousness is an individual's state of **awareness** of their environment, thoughts, feelings, or sensations; in order to experience consciousness, one must be both **awake and aware**.
- The state of being aware; awareness to both internal and external stimuli.
- Consciousness, modern psychologists believe, is an **awareness of ourselves and our environment**.
- Varying degrees of **awareness of ourselves** and the **external world**.

FUNDAMENTAL PROCESS:

Active and Passive Roles of Consciousness

- Boundaries in consciousness define our reality.
- These boundaries are learned.
- Words and their definitions create boundaries.
- **Consciousness:**
 - *Occur Spontaneously*: Daydreaming, Drowsiness, Dreaming
 - *Physiologically Induced*: Hallucinations, Orgasm, Food or Oxygen Starvation
 - *Psychologically Induced*: Sensory Deprivation, Hypnosis, Meditation.
- **Selective Attention**: our conscious awareness processes only a small part of all that we experience. We intuitively make use of the information we are not consciously aware of.
- **Dual processing**: information is processed consciously & unconsciously.
 - The common sense view of consciousness is dualism, which says that a person combines two fundamentally different things, a body and a non-material mind-a soul.
- In **active states**, you intentionally direct and manipulate mental activity.
- In **passive states**, your mind wanders and allows various mental processes to "come to mind."

SLEEP

- **SLEEP:** An altered state of consciousness, characterized by specific patterns of brain activity and inactivity.
- **Why do we Sleep?**
 - We spend one-third of our life in sleeping.
 - If an individual remains awake for several days, immune function and concentration deteriorates and the risk of accidents increases.
- **EEG (electroencephalograph):** A device that records the electrical activity of the brain.
- **Characteristics of Sleep:**
 - Unresponsiveness to the environment
 - Limited physical mobility
- **Purpose of Sleep:**
 - Restorative; recovery from exhaustion/stress
 - Primitive hibernation; conservation of energy
 - Adaptive behaviour; evolution of night time safety strategy
 - Defragmentation of disks (brain)
 - Dream

SLEEP

➤ **Physical Characteristics of Sleep:**

- Lowered body temperature
- Lowered pulse rate
- Lowered rate of respiration
- Brief alpha wave period
- Body twitching, eye rolling, brief visual imagery

➤ So, Sleep helps us to protect, recover, remember, and play a role in the growth process.

➤ **Sleep Deprivation:**

- Fatigue and subsequent death
- Impaired concentration
- Emotional irritability
- Depressed immune system
- Greater vulnerability

➤ **Biological Rhythms:** A periodic, more or less regular fluctuation in a biological system; may or may not have psychological implications.

➤ **Circadian Rhythms (internal biological clock):** occur on a 24-hour cycle and include sleep and wakefulness.

SLEEP

STAGES OF SLEEP

About every 90 minutes, we pass through a cycle of five distinct sleep stages.

➤ **Early Stages**

- Stage I
- Stage II
- Stage III

➤ **Later Stages**

- Stage IV
- REM Sleep

➤ **How much Sleep?**

- 1/3 of our life is spent in sleep
- Newborns: 16 hours (1/2 REM)
- HS Students: 10-11 hours
- College Students: 8 hours
- Elderly: 5 hours

SLEEP

➤ Early Stages of Sleep: Stage I

- Lightest level of sleep
- Slow pulse/ muscles relaxed
- Irregular brain waves
- Up to 10 minutes long
- Theta waves
- Shifting waves move to Stage II

➤ Early Stages of Sleep: Stage II

- Shifting waves
- Eye rolling
- Up to 30 minutes
- Deeper drift into Stage III

➤ Early Stages of Sleep: Stage III

- Large amplitude delta waves
- One wave per second
- Move to Stage IV

SLEEP

➤ **Later Stages of Sleep: Stage IV**

- Deepest level of sleep
- Large delta waves
- 50% of the time
- Sleepwalking; sleep talking; bedwetting
- Descent into REM sleep

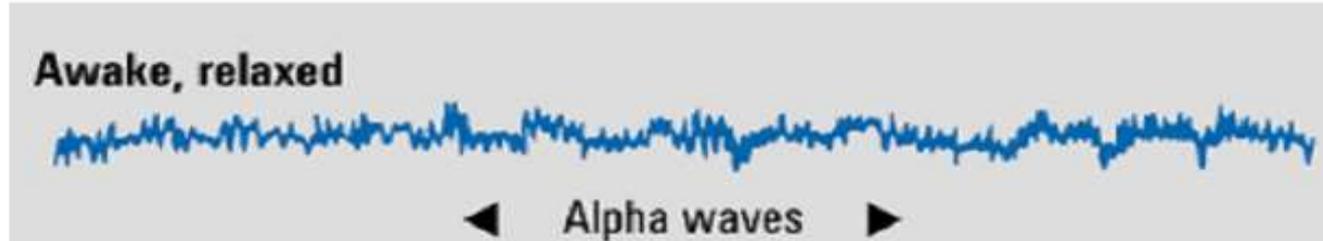
➤ **Later Stages of Sleep: REM Sleep**

- Rapid Eye Movement
- Muscle relaxation
- Irregular pulse rate and breathing patterns
- Increased levels of adrenaline and sexual hormones
- Slow waves (similar to waking waves)
- 15 minutes (early) to 45 minutes (late)
- 90 minute cycles
- Stage IV Decreases
- REM increases

SLEEP

Awake but Relaxed

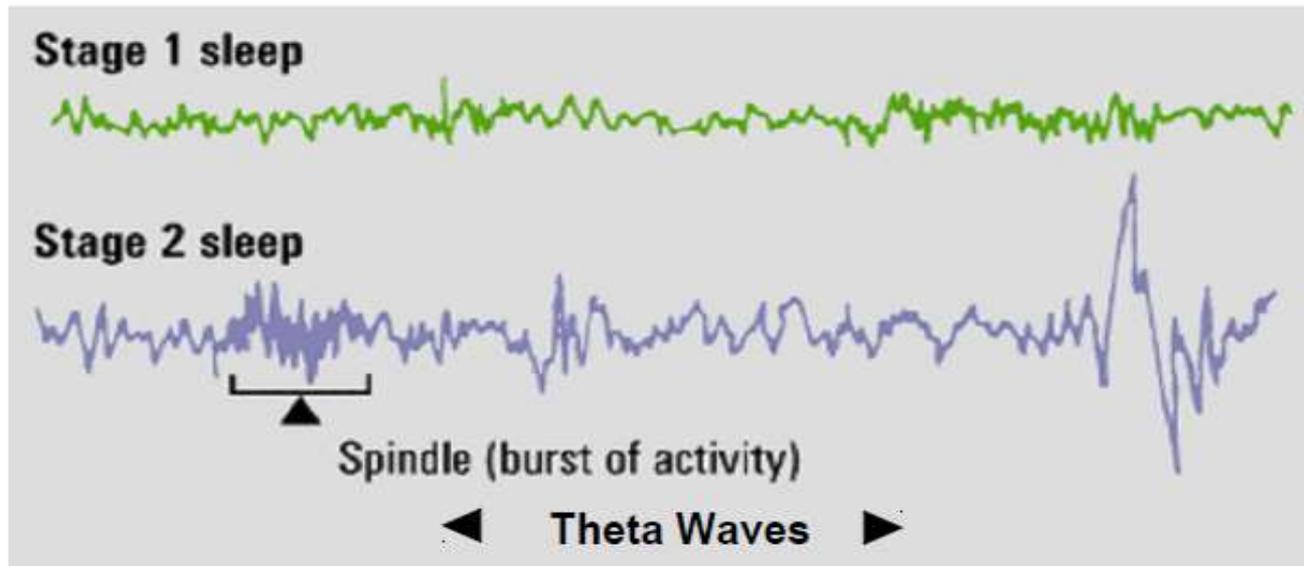
When an individual closes his eyes but remains awake, his brain activity slows down to a large amplitude and slow, regular **alpha waves (9-14 cps)**. A meditating person exhibits an alpha brain activity.



SLEEP

Sleep Stages 1-2

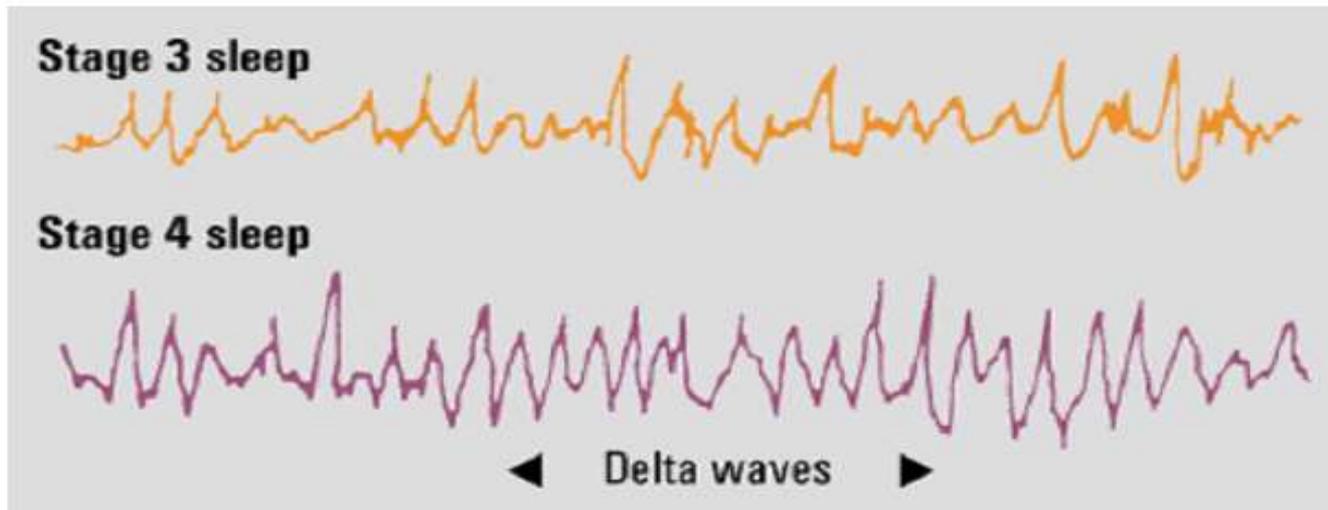
During early, light sleep (stages 1-2) the brain enters a high-amplitude, slow, regular wave form called **theta waves (5-8 cps)**. A person who is daydreaming shows theta activity.



SLEEP

Sleep Stages 3-4

During deepest sleep (stages 3-4), brain activity slows down. There are large-amplitude, slow delta waves (1.5-4 cps).



SLEEP

Stage 5: REM Sleep

After reaching the deepest sleep stage (4), the sleep cycle starts moving backward towards stage 1. Although still asleep, the brain engages in low-amplitude, fast and regular **beta waves (15-40 cps)** much like awake-aroused state.

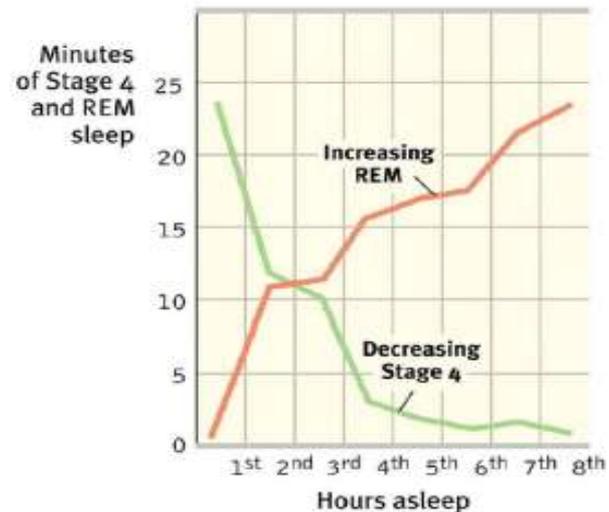
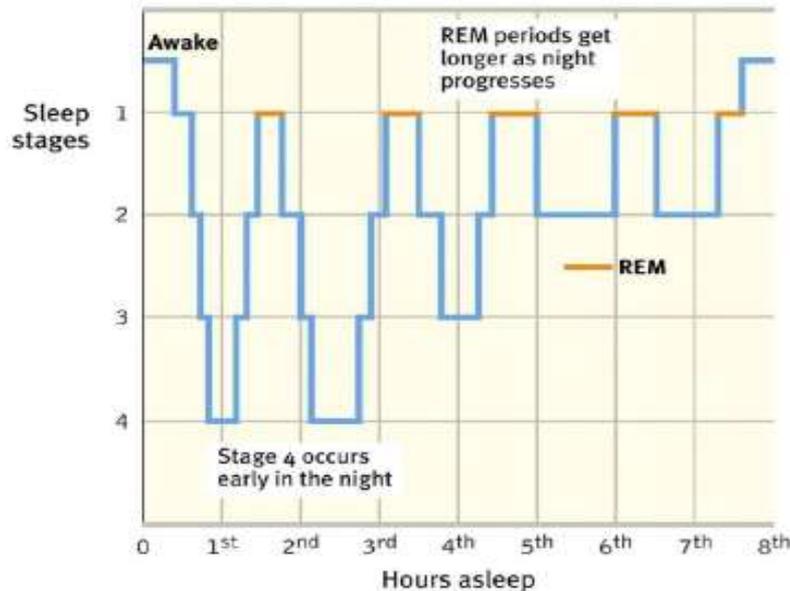


A person during this sleep exhibits Rapid Eye Movements (REM) and reports vivid dreams.

SLEEP

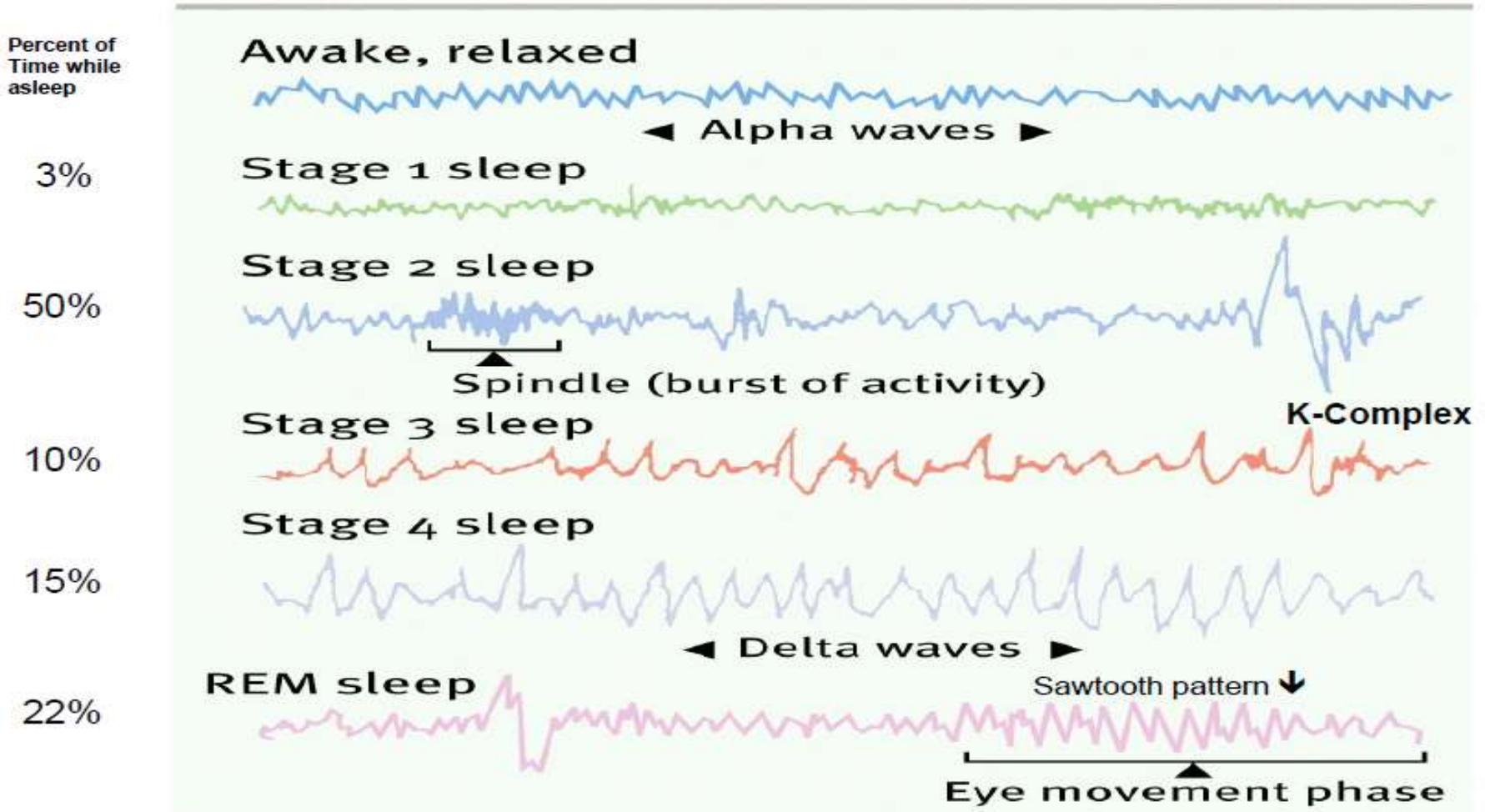
90-Minute Cycles During Sleep

With each 90-minute cycle, stage 4 sleep decreases and the duration of REM sleep increases.



SLEEP

Sleep Stages (brain waves)



SLEEP

SLEEP DISORDERS

➤ **Insomnia**

- A prolonged and abnormal inability to sleep.
- Can be caused by stress, depression, anxiety, overuse of alcohol or drugs.

➤ **Sleep Apnea**

- Frequent interruption of breathing during sleep.
- Symptoms include 10-15 minute snoring episodes; breathing actually stops.
- More common among older people.
- Causes include enlarged tonsils; infection; obesity.

➤ **Narcolepsy**

- Permanent sleepiness and fatigue.
- Unusual sleep/dream patterns.
- Sleep attacks with brief REM periods.

SLEEP

SLEEP DISORDERS

➤ **Nightmares/Night Terrors**

- Nightmares occur during the dream phases of REM sleep.
- Night terrors occur during Stage IV sleep (usually during the first or second episode of Stage IV).
- Terrors last from 5-20 minutes; subjects usually have no memory of them.

➤ **Sleepwalking/Sleep Talking**

- Sleepwalkers are partially but not completely awake.
- Disorder usually associated with children.
- May be inherited.
- Not a psychological disorder.
- Linked to stress, fatigue, and sedative use.
- Usually outgrown.
- Occurs in both REM and NREM.
- Many people do it, but don't remember it.

DREAMS

➤ **Dreams:**

- The mental activity that takes place during sleep.
- Dreams become longer and more complex as the sleep cycle advances.
- People generally remember the last dream (of many) they have during a sleep cycle.
- Sleep deprivation increases the amount of time spent in REM sleep, and therefore the time dreaming.
- We remember interesting dreams more than dull ones.
- Most dreams involve everyday subjects.
- Negative dreams are nightmares
- The emotional quality associated with nightmares probably results from increased brain activity in the limbic system

➤ **What is dream?**

- A sequence of images, sounds and feelings experienced while sleeping.
- Strongly associated with rapid eye movement (REM) sleep.

➤ **What we dream?**

- Negative Emotional Content, Failure, Unconscious wishes.

➤ **Why we dream?**

- Wish Fulfillment, Information Processing, Physiological Function, Cognitive Development.
- Dreams are indispensable. A lack of dream activity may imply some protein deficiency or a personality disorder.

HYPNOSIS

- Hypnosis is an **unusual state of awareness**, defined as a co-operative **social interaction** in which the **hypnotic participant responds** to **suggestions made by hypnotist**.
- Characterized by highly focused attention.
- Yet another form of altered consciousness in which attention is very narrowly focused and people become extremely suggestible.
- Allows shifts in the perception of your consciousness.
- Hypnosis induces a **trance state**, which is much different from sleep.
- Unlike sleep, people under hypnosis are much more open and receptive to internal and external stimuli.
- Best candidates for hypnosis are individuals who approach the experience with positive, receptive attitudes.
- Hypnotized people can't be forced to do things against their will.
- Hypnosis does not increase the accuracy of memory.
- Hypnotic suggestions have been used effectively for medical and psychological purposes.

HYPNOSIS

THEORIES OF HYPNOSIS:

- **Barber:** Hypnosis is just the result of suggestibility.
- **Hilgard:** neodissociation theory; the 'hidden observer'.
- **Green:** degree of suggestibility is critical to the success of hypnosis.
- **Smith & Coe:** subjects play the role of hypnotized subjects.

Uses of Hypnosis:

- Entertainment
- Medicine
- Therapy
- Pain Reduction
- Reveal Problems
- Gain Insight

Post-Hypnotic Suggestion:

- A suggestion made to a hypnotized subject to perform a particular behavior; or to repress a specific piece of knowledge; once he is no longer in a hypnotic trance.

MEDITATION

- A heightened state of relaxation.
- Involves using sustained concentration that focuses attention and heightens awareness.
- Lowered physiological arousal (decreased heart rate and decreased blood pressure).
- Improve concentration, attention, emotional control and well-being, reduce stress and minimize its physical effects.
- Meditation to help people with eating disorders, substance abuse, depression, anxiety, and other serious disorders.

THREE MAJOR APPROACHES TO MEDITATION

- **Transcendental Meditation:**
 - Mantra.
 - Sanskrit.
 - 15-20 minutes twice a day.
- **Mindfulness Meditation:**
 - Buddhist origin.
 - Focusing and visualizing each body part, one at a time.
- **Breath Meditation:**
 - Focus on the process of breathing -- inhaling and exhaling

PSI PHENOMENA

Para-psychological phenomenon, also called PSI phenomenon, any of several types of events that cannot be accounted for by natural law or knowledge apparently acquired by other than usual sensory abilities. The discipline concerned with investigating such phenomena is called parapsychology and include the following.

- 1. Extrasensory Perception (ESP):** Response to external stimuli without sensory contact.
 - Telepathy: Transfer of information on thoughts or feelings between individuals by means other than the five classical senses.
 - (Eg: Identifying a playing card merely being thought of by another person).
 - Clairvoyance: Response to objects or events that do not provide a stimulus to any known sense
 - (Eg: Identifying a concealed playing card whose identity is unknown to anyone).
 - Precognition: Perception of information about future places or events before they occur.
 - (Eg: Predicting which digit a random number generator will generate on the next trail).

PSI PHENOMENA

2. Psychokinesis (PK): Mental influence over physical events without the mediation of any physical force.

- Eg: Taking up a chair without touching it.

3. Near-death experiences: An Experience reported by a person who nearly died, or who experienced clinical death and then revived.

- Eg: A sense of being dead/sensation of floating above one's body and seeing the surrounding area/sensation of moving upwards through a tunnel.

4. Reincarnation: The rebirth of a soul or other non-physical aspect of human consciousness in a new physical body after death.

DRUGS

- How Drugs Work?
 - Absorbed through the capillaries
 - Carried to tissue throughout the body
- Psychoactive Drugs are divided into three groups.
 1. **Depressants**
 1. Alcohol
 2. Barbiturates
 3. Opiates
 2. **Stimulants**
 1. Caffeine
 2. Nicotine
 3. Cocaine
 4. Ecstasy
 3. **Hallucinogens**
 1. LSD
 2. THC

DRUGS

- **Depressants:** Drugs that reduce neural activity and slow body functions.
 - ***Alcohol:*** affects motor skills, judgement, and memory... and increases aggressiveness while reducing self awareness.
 - ***Barbiturates:*** Drugs that depress the activity of the central nervous system, reducing anxiety but impairing memory and judgement.
 - ***Opiates:*** Opium and its derivatives (morphine and heroin) depress neural activity, temporarily lessening pain and anxiety. They are highly addictive.

- **Stimulants:** Drugs that excite neural activity and speed up body functions.
 - ***Caffeine & Nicotine:*** Both increase heart and breathing rates and other autonomic functions to provide energy.
 - ***Cocaine:*** it induces immediate euphoria followed by a crash. Crack, a form of cocaine, can be smoked. Other forms of cocaine can be sniffed or injected.
 - ***Ecstasy:*** is a stimulant and mild hallucinogen. It produces a euphoric high and can damage serotonin-producing neurons, which results in a permanent deflation of mood and impairment of memory.

DRUGS

- **Hallucinogens:** are psychedelic (mind-manifesting) drugs that distort perceptions and evoke sensory images in the absence of sensory input. It produces a loss of contact with reality.
 - ***LSD (Lysergic Acid Diethylamide):*** is a powerful hallucinogenic drug that is also known as acid.
 - ***THC (TetraHydroCannabinol):*** is the major active ingredient in marijuana (hemp plant) that triggers a variety of effects, including mild hallucinations.

- **Risks of Drug Use:**
 - Death/Injury/Overdose/Accident/Legal issues/Destructive behaviour

- **Treatment of Drug Use:**
 - The drug abuser must admit that he/she has a problem.
 - The drug abuser must enter a treatment program or get therapy.
 - The drug abuser must remain drug free.
 - Support groups help prevent relapse.



Thank you

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