

09

# TNPSC GROUP II / IIA MAINS SCERT - SCIENCE & TECHNOLOGY QUESTION WITH ANSWER

9.

## Drug and Alcohol Abuse

- "The intake of certain drugs for a purpose other than their normal clinical use in an amount and frequency that impair one's physical, physiological and psychological functions".

### Common Drugs

1. Opioids
2. Cannabinoids
3. Coca - alkaloids
4. Barbiturates
5. LSD - Lysergic acid diethylamide

### 1. Opioids

- Binds to specific opioid receptors in central nervous system and intestinal tract.
- Heroin (Smack) diacetyl morphine
- Morphine - extracted from flowers of poppy plant
- Morphine is one of the strongest pain killer and is used during surgery
- Acts as depressant - slows down body functions.

### 2. Cannabinoids

- Cannabis sativa (Indian hemp plant)
- Source of Marijuana, Ganja, hashish & charas
- Interferes in transport of neurotransmitter - Dopamine
- Increased energy & a sense of euphoria

### 3. Cocaine

- White powder obtained from leaves of coca plant - *Erythroxylum coca*
- Commonly called coke / crack
- Hallucinations and paranoia

#### 4. Barbiturates & LSD

- To treat patients with mental illness - depression & Insomnia

#### 5. Tobacco

- Increases carbon monoxide content of blood & reduce haembound oxygen
- Contains Nicotine, CO and tars
- Adrenal glands are stimulated by Nicotine
- Increases Blood pressure and heart rate
- Addiction - Physical / psychological need to do / take / use certain substance (Alcohol) to the point where it could be harmful to be individual.

#### Consequence of drug abuse

- Increased addiction & dependence
- Repeated use affect the tolerance level of body receptors
- Physical dependence
- 'Liver cirrhosis' - Scarring in the liver due to over time fat accumulation destroying liver cells.
- Excessive alcohol - weakens heart muscle, heart attack
- Korsakoff syndrome - chronic memory disorder due to alcohol misuse

#### Prevention & control

- Effectively dealing with peer pressure
- Seeking help from parents and peers
- Education and counselling
- Looking for danger signs
- Seeking professional and medical assistance

#### Classification of drugs

- Stimulants - Amphetamines, cocaine, Nicotine & Tobacco
- Depressants - Alcohol, Barbiturates
- Narcotics - Opium, Morphine
- Hallucinogens - LSD, Phencyclidine