



# SNS COLLEGE OF ENGINEERING

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**AN AUTONOMOUS INSTITUTION**



Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

**19MC003 - ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE**

## Syllabus

### UNIT-I:

**Introduction to traditional knowledge:** Define traditional knowledge, nature and characteristics, scope and importance, kinds of traditional knowledge, Indigenous Knowledge (IK), characteristics, traditional knowledge vis-a-vis indigenous knowledge, traditional knowledge Vs western knowledge traditional knowledge

### UNIT-2:

**Protection of traditional knowledge:** The need for protecting traditional knowledge Significance of TK Protection, value of TK in global economy, Role of Government to harness TK.

### UNIT-3:

**Legal framework and TK:** The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Plant Varieties Protection and Farmer's Rights Act, 2001 (PPVFR Act); The Biological Diversity Act 2002 and Rules 2004, the protection of traditional knowledge bill, 2016.

### UNIT-4:

**Traditional knowledge and intellectual property:** Systems of traditional knowledge protection, Legal concepts for the protection of traditional knowledge, Patents and traditional knowledge, Strategies to increase protection of traditional knowledge

### UNIT-5:

**Traditional Knowledge in Different Sectors:** Traditional knowledge and engineering, Traditional medicine system, TK in agriculture, Traditional societies depend on it for their food and healthcare needs, Importance of conservation and sustainable development of environment, Management of biodiversity, Food security of the country and protection of TK

### Text Books:

1. Traditional Knowledge System in India, by Amit Jha, 2009.

### Reference Books:

1. Traditional Knowledge System in India by Amit Jha Atlantic publishers, 2002.
2. "Knowledge Traditions and Practices of India" Kapil Kapoor<sup>1</sup>, Michel Danino<sup>2</sup>.

# Two mark Question and answer

## UNIT 2: Protection of Traditional Knowledge

### 1. Why is there a need to protect traditional knowledge?

- Traditional knowledge (TK) needs protection to **prevent biopiracy**, where corporations or individuals exploit indigenous knowledge without giving due credit or benefits to the original communities.
- It helps in **preserving cultural heritage, ensuring sustainability, and maintaining biodiversity**, which are vital for future generations.
- Protection of TK ensures **fair economic benefits** for indigenous communities and prevents the **misappropriation and misuse** of their knowledge.

### 2. How can Intellectual Property Rights (IPR) help in protecting traditional knowledge?

- PR can **grant legal recognition** to traditional knowledge, ensuring that indigenous communities retain rights over their heritage and innovations.
- Patents, trademarks, and geographical indications can **prevent unauthorized commercialization** of TK by third parties.
- It enables **fair benefit-sharing** by ensuring that profits gained from TK-based products are equitably distributed to the knowledge holders.

### 3. Why should Traditional Knowledge be protected?

- Protection helps **prevent unauthorized use, biopiracy, and ensures fair benefit-sharing**.

### 4. What is the significance of TK in the global economy?

- TK contributes to **pharmaceuticals, agriculture, handicrafts, and eco-tourism, generating billions in revenue**.

### 5. What is Biopiracy?

- Biopiracy is the **unauthorized commercial use of TK or genetic resources without compensation to native communities**.

### 6. What are two main threats to Traditional Knowledge?

- **Cultural erosion due to modernization and exploitation by multinational companies**.

### 7. How does globalization impact Traditional Knowledge?

- It leads to **loss of indigenous identity, commercialization, and reduced cultural transmission**.

**8. How can governments help protect TK?**

- By **creating legal frameworks, promoting TK databases, and recognizing indigenous rights.**

**9. What role do patents play in protecting TK?**

- Patents can **help safeguard indigenous innovations but may also lead to misappropriation.**

**10. What is a Geographical Indication (GI)?**

- A GI is a **label given to products from a specific region, like Darjeeling tea or Basmati rice.**

**11. Why is legal protection needed for TK?**

- To **ensure indigenous communities receive recognition and benefits from their knowledge.**

**12. What role do local communities play in preserving TK?**

- They **pass down knowledge, practice sustainable techniques, and advocate for legal protection.**

**13. Give an example of a TK protection case.**

- **India successfully fought against the U.S. patent on neem extract used for medicinal purposes.**

**14. What is the relationship between TK and biodiversity?**

- TK helps in **managing and conserving biodiversity through traditional farming and ecological practices.**

**15. How does TK benefit healthcare?**

- TK forms the base of **herbal medicine, Ayurveda, and home remedies for various ailments.**

**16. How does the international community help in protecting TK?**

- Organizations like **WIPO and UNESCO advocate for legal protection of indigenous knowledge.**

**17. How can digital technology aid in TK protection?**

- **By creating TK databases, mapping indigenous practices, and ensuring secure documentation.**

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## Sixteen-mark question

### UNIT 2: Protection of Traditional Knowledge

1. Analyze how traditional knowledge can be used to develop sustainable agriculture practices. Suggest ways in which modern agricultural industries can integrate TK for better productivity
2. Evaluate how traditional knowledge can be integrated into modern education systems. What steps can governments take to ensure TK is preserved for future generations?
3. Compare and contrast different international frameworks for traditional knowledge protection. What lessons can be learned to develop a more effective global approach?
4. Assess the ethical implications of multinational corporations patenting products based on traditional knowledge. (*Evaluating - Level 5*)
5. Compare the strengths and weaknesses of existing national and international frameworks for TK protection, and suggest improvements. (*Analyzing - Level 4*)
6. To what extent should governments regulate access to traditional knowledge, balancing protection and global knowledge-sharing? (*Evaluating - Level 5*)
7. Design a policy model that equitably distributes economic benefits from TK-based innovations among indigenous communities. (*Creating - Level 6*)
8. Analyze the challenges of enforcing TK protection laws in developing nations with diverse cultural groups. (*Analyzing - Level 4*)