



NAME OF FACULTY: Jyoti Vishwakarma  
TEACHING PLAN: Agricultural Heritage

SCHOOL: (SOAS) SCHOOL OF AGRICULTURAL SCIENCES		ACADEMIC SESSION: 2023-24		FOR STUDENTS' BATCH: 2023-2027		
1	Course No.	AEX-T-103				
2	Course Title	Agricultural Heritage				
3	Credits	1				
4	Learning Hours		Contact Hours	18		
			Assessment	37		
			Guided Study	37		
			Total hours	90		
5	Course Objective	1. To develop the ability to understand and application of basics of the agriculture. 2. To develop the ability to understand the difference in ancient and modern agricultural practices. 3. To develop the ability to apply traditional technical knowledge into practices. 4. Develop the ability to analyze the evolution and developments in agriculture and allied sectors. 5. Develop the ability to evaluate the shortcomings of the current practices and blend modern practices with ancient to get the best results.				
6	Course Outcomes	1. To know the basics of the agriculture. 2. To know the evolution of agriculture from different periods from veda to modern agriculture. 3. Ancient Agricultural Practices & Its relevant to modern agriculture practices. 4. Traditional Technical Knowledge. 5. Our Journey (Developments) in Agriculture and Vision for the Future.				
7	Outline syllabus:					
7.01	Paper Code	Unit	Introduction		Page Numbers 1	Lectures
7.02	AEX-103	Unit I	1. Introduction of Indian agricultural heritage 2. Ancient agricultural practices 3. Relevance of heritage to present day agriculture 4. Past and present status of agriculture and farmers in society		3-12	1 to 5

7.03		Unit II	1. Plant production and protection through indigenous traditional knowledge 2. Crop voyage in India and world 3. Crop significance and classifications	45-54	6 to 8
7.04		Unit III	1. Agriculture scope 2. Importance of agriculture and agricultural resources available in India 3. Journey of Indian agriculture and its development from past to modern era	55-77	9 to 13
7.05		Unit IV	1. National agriculture setup in India 2. Current scenario of Indian Agriculture 3. Indian agricultural concerns and future prospects	85-117	14 to 16
8	Course Evaluation				
8.1	CA: 20%				
8.11	Attendance	25%			
8.12	Homework	2 Assignments-50%			
8.13	Quizzes	2 Quizzes-25%			
8.14	Projects				
8.15	Presentation				
8.16	Any other				
8.2	MTE	30%			
8.3	End-term examination: 50%				
9	Text Books & References				
9.1	Text book	1. Introductory Agriculture. ICAR Publication 2. S.R. Reddy, Agricultural Heritage, Kalyani Publishers			
9.2	References	1. Utpal Giri and Md. Hedayutulla, Text Book of Agricultural Heritage, Scientific Publishers 2. A. Zaman and Sagar Maitra, Agricultural Heritage, Palmview publishers			
	Video References	1. <a href="https://www.youtube.com/watch?v=bXVDmJCCsq0&amp;t=118s">https://www.youtube.com/watch?v=bXVDmJCCsq0&amp;t=118s</a> 2. <a href="https://www.youtube.com/watch?v=n6FTCMAXRkU&amp;t=40s">https://www.youtube.com/watch?v=n6FTCMAXRkU&amp;t=40s</a> 3. <a href="https://www.youtube.com/watch?v=IVHD9wGlbho">https://www.youtube.com/watch?v=IVHD9wGlbho</a> 4. <a href="https://www.youtube.com/watch?v=IxEb2XmiljE">https://www.youtube.com/watch?v=IxEb2XmiljE</a> 5. <a href="https://www.youtube.com/watch?v=IrwRM244IPQ">https://www.youtube.com/watch?v=IrwRM244IPQ</a> 6. <a href="https://www.youtube.com/watch?v=SdPrxlvw04Y">https://www.youtube.com/watch?v=SdPrxlvw04Y</a>			

#### Mapping of Outcomes v. Topics

Outcome no. → Syllabus topic↓	1	2	3	4	5
Paper Code. Unit I (1)	✓	✓			
Paper Code. Unit I (2)	✓	✓			

Paper Code. Unit I (3)	✓	✓			
Paper Code. Unit I(4)	✓	✓			
Paper Code. Unit II(1)			✓		
Paper Code. Unit II(2)			✓		
Paper Code. Unit II(3)			✓		
Paper Code. Unit III(1)				✓	
Paper Code. Unit III(2)				✓	
Paper Code. Unit III(3)				✓	
Paper Code. Unit IV(1)					✓
Paper Code. Unit IV(2)					✓
Paper Code. Unit IV(3)					✓

## Question Bank

### UNIT-I:

#### A. Objective Questions

- The invention of the plough was noted in ..... age.
  - 2200 BC
  - 2300 BC
  - 2900 BC
  - 3000 BC
- Domestication of sheep started in
  - 8000 B.C.
  - 7700 B.C.
  - 8700 B.C.
  - 8500 B.C.
- Invention of wheel happened in
  - 3100 B.C.
  - 3200 B.C.
  - 3300 B.C.
  - 3400 B.C.
- Which is the right ascending sequence considering the period of domestication?
  - Dog > goat > pig.
  - Goat > dog > pig.
  - Pig > dog > goat.
  - Pig > goat > dog.
- this period is characterized by the food gatherers and hunters
  - Paleolithic age

- b. Neolithic age
- c. Mesolithic age
- d. Chalcolithic age

**B. Define the terms-**

- 1. History
- 2. Heritage
- 3. Agricultural Heritage
- 4. Human Culture
- 5. Domestication

**C. Write short notes on following heads-**

- 1. Neolithic age
- 2. Mesolithic age
- 3. Chalcolithic age
- 4. Paleolithic age
- 5. Medieval Period

**D. Descriptive Questions**

- 1. Write about the need to should study the agricultural heritage?
- 2. What are the different early ages of development of human culture?
- 3. Illustrate role of farming system and farmers in ancient agriculture period.
- 4. Create a table for internal disorder observed in trees, their causes, symptoms and remedies suggested by Surpala's Vriksha Ayurveda.
- 5. Discuss various indigenous practices used by tribal in the area of tribal management.

## **UNIT- II**

**A. Objective Questions**

1. Who introduced groundnut and tobacco during the 16th century A.D. in India?

- (a). British.
- (b). Polish.
- (c). Portuguese.
- (d). Francis.

2. Introduction of grafting technology in horticulture?

- (a). Portuguese: 1550 A.D.
- (b). Italian: 1450 A.D.
- (c). Russian: 1500 A.D.
- (d). None of the above.

3. Which was the cause of the Iris famine in during 1845 A.D.?

- (a). Early blight of potato.
- (b). Early blight of tomato.
- (c). Late blight of tomato.
- (d). Late blight of potato.

4. Which was the period of severe famine?

- (a). 1868-69.
- (b). 1878-79.
- (c). 1889-89.
- (d). 1858-59.

5. Ifugao rice terrace farming is followed in the country of .....

- a. China
- b. India
- c. Philippines
- d. England

B. Define the terms-

- 1. Crops
- 2. Crop diversification
- 3. Plantation crops
- 4. Organic Farming
- 5. Sustainable Agriculture

C. Write short notes on following heads-

- 1. Jhum Cultivation
- 2. Green Revolution
- 3. Manures and Fertilizers
- 4. Various agricultural implements and methods used for harvesting and storage of crops.
- 5. Advantages and disadvantages of Organic Farming.

D. Descriptive Question

- 1. What are the causes and constraints of crop diversification? What strategies can be taken for diversification of crops?
- 2. Write down the probable origin of the following crops.  
Jackfruit, pigeon pea, chilli, pine apple, custard apple, wheat, barley, rice.
- 3. What indices are used to identify the origin of the crops?
- 4. What are the difficulties to identify the crops originated in India?
- 5. Explain how crop voyage improved the diversity of crops in India.

### UNIT-III

A. Objective Questions

- 1. The famous book written by Chanakya is
  - a. Amarkosha
  - b. Arthasastra
  - c. Brihat-Samhita
  - d. Vrikshayurveda
- 2. Who were the authors of following books?
  - a. Arthasastra
  - b. Ashtaddyayi
  - c. Mahabhasya

- d. Charak Samhita
3. Silk moth was domesticated first time in which country?
    - a. Malaysia
    - b. Indonesia.
    - c. India.
    - d. China.
  4. Civilization comes from latin word 'Civitas' means
    - a. City
    - b. Village
    - c. Both of these
    - d. None of these
  5. Sericulture flourished in some localities during buddhist period are..... .
    - a. Magadha
    - b. Pundra
    - c. Suvarnakudya
    - d. Nalanda

**B. Define the terms-**

1. Indigenous Technical Knowledge (ITK).
2. Natural Resources
3. Sustainable water management
4. Soil erosion
5. Soil conservation

**C. Write short notes on following head-**

1. What are the constraints for scouting of ITK? What strategies can be adopted to facilitate scouting of ITK?
2. Reasons for refusal for sharing of ITKs
3. Protection for ITK in Indian act
4. Traditional Knowledge Digital Library (TKDL)
5. Usefulness of ITKs

**D. Descriptive Question**

1. What type of farm implements were used in Vedic period as evidence by different texts?
2. What types of farm tools were used during Indus period?
3. List the imports and exports of crops and agro-commodities in Indus civilization period.
4. What was the situation of fish farming during Indus period?
5. Write a brief account of water management and irrigation practices in Indian subcontinent during Vedic period.

**UNIT-IV**

#### A. Objective Questions

1. Maurya ruler Asoka excavated ..... lake to facilitate irrigation.
  - a. Sudarsana
  - b. Panchama
  - c. Magha
  - d. Jaanki
2. .... was one of the important literary resources to study the agriculture of the Buddhist period.
  - a. Arthasastra
  - b. Rigveda
  - c. Agnipurana
  - d. Lokapakaram
3. Establishment of the joint department of revenue agriculture and commerce.
  - a. 1869.
  - b. 1870.
  - c. 1871.
  - d. 1872.
4. Year of establishment of Indian Meteorological Department.
  - a. 1874.
  - b. 1875.
  - c. 1876.
  - d. 1873.
5. Year of establishment of famine commission?
  - a. 1881.
  - b. 1879.
  - c. 1893.
  - d. 1880.

#### B. Define the terms-

1. Globally Important Agriculture Systems (GIAHS)
2. Ayurveda
3. Saiva Sampradayam
4. Arsha Sampradayam
5. Siddha Medicines

#### C. Write short notes on following head-

1. Current scenario of Indian agriculture.
2. Major drawbacks of Indian Farm sector.
3. Various government initiatives for sustainable development of agriculture.
4. Importance of agriculture in India.
5. Characteristic features of GIAHS.

#### D. Descriptive Question

1. Write a note on scope of agriculture in India.

2. Write a note on Indian agricultural concerns and future prospects.
3. Compare agriculture development before and after independence in India.
4. Summarise status of farmers in India during different time periods.
5. Discuss agriculture research, education and extension activities and their importance.