

## SEMESTER-VI

### COURSE 14 A: INDIA AFTER INDEPENDENCE (1947-1991)

Theory

Credits: 4

4 hrs/week

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#### Objectives:

Students after successful completion of the course will be able to

- Understand the Socio-Political and Economic conditions of India on the eve of independence.
- Examine the Visionary Leadership and contributions of key Architects of Modern India.
- Analyze India's Foreign Policy approach and its role in promoting global peace and cooperation.
- Evaluate the rise of regional and Sub-National Movements and their implications on Indian unity and governance.
- Assess India's progress in Education, Economy, Infrastructure, and Cultural Development Post-Independence.

#### Learning Outcomes:

- ✓ Know the major changes and developments in contemporary India.
- ✓ Understand the developments in the fields of education, science, and technology.
- ✓ Inculcate the scientific temper among the students.
- ✓ Learn about the new economic reforms in the era of globalization.
- ✓ Know the Indian Foreign Policy and challenges of contemporary India.

#### Unit-I

Problems of Partition-Making of Indian Constitution- First General Elections-Major Political Developments-Formation of Linguistic States

#### Unit-II

Green Revolution and Agricultural Developments-Land Reforms-New Economic Reforms 1991: Role of PV Narasimha Rao- National Emergency

#### Unit-III

Major Developments in Education, Science, Technology and Medicine, IT Sectors (1947 to 1991)- ISRO & DRDO Achievements

#### Unit-IV

India's Foreign Policy: Panchsheel-Non-Aligned Movement (NAM)-SAARC-Indo-China War, Indo-Pak War and Its Impact-Pokhran-I &II

## **Unit-V**

Challenges of Contemporary India: Terrorism-Regionalism, Naxalism- Corruption, Basic Needs- Un-employment, Pollution and Poverty, Population, Social Justice, Women Safety- Social Media and its Impact

### **Curricular Activities:**

- Latest Developments must teach in the class room by teacher
- Invited/Guest Lectures: Presentations on Related Topics by Experts
- Use PPTs and Photos for effective Teaching
- Collection of Newspaper Clippings
- Assignments/Seminars/Group Discussions/Quiz/Unit Tests
- Historical Tours and attend the Conferences/Symposiums
- Training of Students in Usage of Technology like Chat GPT and Artificial Intelligence tools
- Visit to the Industrial and IT hubs
- Conduct the exhibitions
- Students can display the charts on the growth of science and technology in India.
- Research-based assignments
- Rare collection of books and photos
- Participate in Andhra Pradesh, South Indian and Indian History Congresses.

### **Reference Books:**

1. Bipan Chandra., India Since Independence, Penguin Books Limited, 2008
2. Wendy Singer., Independent India 1947-2000, Taylor and Francis, 2018
3. Bipan Chandra., Aditya Mukherjee, Mridula Mukharjee., India after Independence, Penguin Books Limited, 1999.
4. Paul R.Brass., The politics of India since Independence, Cambridge University Press, 1994.
5. Dietmar Rothermund., Contemporary India, Political, Economic and Social Developments Since 1947, Pearson Education, 2013.
6. Baljith Singh., Revising Nehru in Contemporary India, KW, 2020.
7. Newspapers/Journals/Books
7. Online/offline Sources

## SEMESTER-VI

### COURSE 14 B: MAKERS OF MODERN INDIA

Theory

Credits: 4

4 hrs/week

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#### Objectives:

Students after successful completion of the course will be able to.,

- Discuss the famous personalities in Modern India
- Asses the Modern visionaries and their contribution to the Nation
- Evaluate the Great National Historians and their service to the Nation
- Examine the Andhra Pradesh Great Personalities and their contribution to the different fields.

#### Learning Objectives:

- ✓ Lean into some of the political stalwarts and their vision of modern India.
- ✓ Analyzing the Contribution of Scientists and great historians who served for Nation.
- ✓ Learn the Andhra Pradesh Great Personalities, who contributed their services to society.
- ✓ Know some of the extraordinary talent persons in their respective fields.
- ✓ Understand some of the makers and their contributions to the culture and service fields.

#### Unit-I

Modern Visionaries: M.K.Ghandhi, Jawahar Lal Nehru, Dr. B.R. Ambedkar, Moulana Abul Kalalm Azad- Sardar Patel

#### Unit-II

Contribution of the Giant Scientists to the Modern Society: Sir C.V. Raman, Har Gobind Khorana- Homi J.Baba- A.P.J.Abdul Kalam-Vikram Sarabai

#### Unit-III

Contribution of Different Schools of Historians: R.S. Sharma- Romila Thapar-D.D. Kosambi- Irfan Habib-Bipan Chandra, Rama Chandra Guha.

#### Unit-IV

Yelavarthy Nayudamma-Yellapragada Subba Rao-Mangalam Palli Bala Murali Krishna-Yamini Krishna Murthy

#### Unit-V

Pingali Venkaiah- Duvvuri Subba Rao-Vedantam Lakshmi Narayana Sastry-Vempati China Satyam

**Curricular Activities:**

- Refer the Biographies of Individual Personalities
- Students learn to identify collections of individual writings by the Makers of Modern India.
- Research-based assignments
- Personal Interviews
- Debates on the contribution of the makers of modern India
- Collection of books and photos of the makers of modern India.
- Invited Lectures: Presentations on Related Topics by Experts
- Use PPTs and Photos for effective Teaching
- Collection of Newspaper Clippings
- Assignments/Seminars/Group Discussions/Quiz/Unit Tests
- Historical Tours and attend the Conferences/Symposiums
- Training of Students in Usage of Technology like Chat GPT and Artificial Intelligence tools

**Reference Books:**

1. Ramachandra Guha., Makers of Modern Asia, Harvard University Press, 2014
2. Ramachandra Guha., India after Gandhi: The History of the World' Largest Democracy, Pan MacMillan, 2017
3. Ramachandra Guha., Makers of Modern India, Harvard University Press, 2013
4. Prof. Jyoti Singh., the Great Indian Scientist, Nitya Publications, 2022
5. Jog Jith Singh., Some Eminent Indian Scientists, Govt of India, 2001
6. Refer the Biographies/Auto Biographies and their writings of the above mentioned personalities.
7. News Papers/Videos/ Radio Talks/Interviews
8. Online/ Web Resources

## SEMESTER-VI

### COURSE 15 A: HISTORY OF SCIENCE AND TECHNOLOGY IN INDIA

Theory

Credits: 4

4 hrs/week

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#### Objectives:

Students after successful completion of the course will be able to.,

- Know the origins of Science and Technology of Modern India
- Get exposure to the students regarding the Scientific Temperament of Ancient India
- Appreciate to achievements of Science and Technology of Modern India
- Learn about the Achievements of Science, Technology and Medicine of Contemporary India

#### Learning outcomes:

- ✓ Enable the students to understand the origins of Science and Technology from time immemorial.
- ✓ Make students in understanding the scientific temperament of Ancient India
- ✓ Know the achievements of science and technology in Medieval India.
- ✓ Get exposed to the achievements of Modern India.
- ✓ Enable to students to know the achievements in the field of Science, Technology and Medicine of contemporary India.

#### Unit-I

Meaning of Science, Technology and Medicine- Origin and Development- Importance of the Study of History of Science, Technology and Medicine

#### Unit-II

Science and Technology in Ancient India: Tool Technology in Pre Historic Period-Town Planning and Building Constructions-Metal Technology-Development of Mathematics, Astronomy, Astrology, and Ayurveda Medicine.

#### Unit-III

Science and Technology in Medieval India: Irrigation Technology-Building Technology- Minting Technology- Military Technology -Development of Unani Medicine.

#### Unit-IV

Science and Technology in Modern India: Science and Technology under Colonial Rule (1858-1947)-Agricultural and Industrial Developments- Nuclear Energy-Achievements in Space Technology- Developments in Health and Medical Sciences after Independence.

#### Unit-V

Science and Technology in Contemporary India: Science, Technology and Innovation Policy of 2013- Internet and Mobile Revolution- E- Commerce-Covid-19 and it's Vaccines- Impact of Science and Technology on Society.

### **Curricular Activities:**

- Inculcate the scientific temper among the students.
- Visit to the nearby Institutes
- Visit CSIR, DST, ISRO, DRDO, IITs, and other Science Institutes, etc.
- Conduct the exhibitions and display the photos with a brief history of their contributions to society.
- Students can display the charts on the growth of science and technology in chronological order.
- Research-based assignments
- Invited Lectures and Presentations on Related Topics
- Debates on the Science and Innovation Policies
- Seminars, Group Discussions, Quizzes, etc.
- Rare Collection of Books/Photos of Scientists.
- Making a video on rare collections or unknown facts about historical science
- Participated in Andhra Pradesh, South Indian, and Indian History Congresses.
- Take membership in the Indian Science Congress and the Indian Social Science Congress.

### **References:**

1. O.P.Jaggi., History of Science and Technology in India: Science in Modern India, Atma Ram, 1984.
2. Debiprasad Chattopadhyaya., History of Science and Technology in Ancient India: Astronomy, Science and Society, Firma KLM, 1986.
3. Irfan Habib., Technology in Medieval India C.650-1750, Tulika Books, 2016.
4. O.P.Jaggi., Science and Technology in Medieval India, Atma Ram, 1981.
5. G.Kuppuram, K. Kumudamani (Ed)., History of Science and Technology in India: Health and Medicine, Science and Religion, Sundeep Prakashan, 1990.
6. Bose D.M., (ed) A Concise History of Science in India, New Delhi, 1971
7. David Arnold, the New Cambridge History of India: Science, Technology and Medicine in Colonial India, Cambridge 2000.
8. Babar Zahir, Science of Empire, Scientific Knowledge, and Medicine in Colonial India, Delhi, 1980.
9. Kuppuram, G. History of Science and Technology, New Delhi, 1990
10. Habib, Irfan and Dhru Raina, Situating the History of Science Dialogues with Joshep Needham, Delhi, 1999.
11. Perspectives in Science and Technology, Dept of Science and Technology, New Delhi, 1990.

## SEMESTER-VI

### COURSE 15 B: INDIAN KNOWLEDGE SYSTEMS

Theory

Credits: 4

4 hrs/week

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#### Objectives:

Students after successful completion of the course will be able to

- Know the concept of Knowledge System
- Trace the Genesis of Indian Knowledge System and Its Approaches
- Learn and appreciate the need of Language and their history
- Inculcate Indian Scientific Knowledge systems to among the students

#### Learning outcomes:

- ✓ Students will understand India's rich knowledge system.
- ✓ Know the concept and contribution of knowledge and approaches of the Indian Knowledge System.
- ✓ Learn to appreciate the need for and importance of languages in getting to the roots of philosophical concepts.
- ✓ Inculcate the Indian Scientific Knowledge System among the students.
- ✓ Learn the Indian Agriculture Knowledge System.

#### Unit-I

Definition of Knowledge-Scope and Importance-Indian Traditions-Arthasastra-Indian Astronomy-YOGA and Meditation

#### Unit-II

Indian Knowledge System Approaches: Vedic Philosophy-Jain and Buddhist Philosophy- Islamic, Sufi and Christian Philosophies

#### Unit-III

History and Development of Indian Languages: Sanskrit-Hindi-Urdu-Arabic-English and Vernacular Languages-Literature Development

#### Unit-IV

Indian Scientific Knowledge: Understanding of Ayurveda, Mathematics, Science, Medicine and Technology.

#### Unit-V

Town Planning-Art and Architecture-Indian Dance and Music-Governance.

## **Suggested Curricular Activities**

- Training of Students on any one of the knowledge systems
- Research-based assignments
- Invited Lectures
- Presentations on Related Topics by Field Experts
- Debates on various knowledge systems
- Unit tests and internal examinations
- Seminars, Group Discussions, Fieldwork, Quizzes, etc.
- Collection of newspaper cuttings, videos, and books on new innovation and the latest developments in various fields and preserve them in a folder.
- Visits to Scientific Knowledge Institutions, Organizations, and Industries, etc.
- Book Reviews/Seminars Presentations on Indian Knowledge Systems
- Participated in Andhra Pradesh, South Indian, and Indian History Congresses

## **References:**

1. Kapil Kapoor, Avadhesh K. Singh., Indian Knowledge Systems, Indian Institute of Advanced Studies, 2005.
2. Debashis Chatterjee, Deepa Sethi, Surya Prakash Pati., Globalising Indian Thought: Insights from Indian Knowledge Systems, Sage Publications, 2021.
3. Yih-Ren Lin, Huei-Min Tsai, Mucahid Mustafa Bayrak., Indigenous Resilience and Indigenous Knowledge Systems in the Context of Climate Change, MDPIAG, 2021.
4. Lokesh Chandra., (Ed), & Raghu Veera (Author)., Development of Indian languages, International Academy of Indian Culture and Aditya Prakashan, 2021
5. A.P.J.Abdul Kalam., The Scientific Indian: A Twenty-First Century Guide to the World Around us, Penguin Books Ltd, 2010.
6. S.Radh Krishnan., Indian Philosophy, Vol-I, Oxford University Press, 2008
7. Rajendra Singh Paroda., Reorienting Indian Agricultural System: Challenges and Opportunities, CABI Publishers, 2018
8. Thanu Padmanabhan., Astronomy in India: A Historical Prospective, Springer India, 2014
9. Online Sources