

| | | | | |
|---------------------|-------|-------------------------------|----------|-----------------------------------|
| Code: BCA-1003 T | GEC-I | Indian Knowledge System (IKS) | 2L+T: 0P | 2 Credits (30 hours theory) |
|---------------------|-------|-------------------------------|----------|-----------------------------------|

Max Marks: 100; Theory: 100 (Int: 25; Ext: 75)

Module : Indian Culture and Civilization

Course outcomes :

- CO1:** To introduce fundamentals of Ancient Indian Educations to understand the pattern and purpose of studying vedas, vedangas, upangas, upveda, purana & Itihasa
- CO2:** To help students to trace, identify and develop the ancient knowledge systems.
- CO3:** To help to understand the apparently rational, verifiable and universal solution from ancient Indian knowledge system for the holistic development of physical, mental and spiritual wellbeing
- CO4:** To build in the learners a deep-rooted pride in Indian knowledge, committed to universal human right, well-being and sustainable development.

| Unit | Topics | Purposed lectures |
|------|---|-------------------|
| I | Introduction to IKS Caturdaśa Vidyāsthānam, 64 Kalas, Shilpa Śāstra, Four Vedas, Vedānga, Indian Philosophical Systems, Vedic Schools of Philosophy (Sāṃkhya and Yoga, Nyaya and Vaiśeṣika, Pūrva-Mīmāṃsā and Vedānta), Non-Vedic schools of Philosophical Systems (Cārvāka, Buddhist, Jain), Puranas (Maha-puranas, Upa-Puranas and Sthala-Puranas), Itihasa (Ramayana, Mahabharata), Niti Sastras, Subhasitas | 6 |
| II | Foundation Concept for Science & Technology Linguistics & Phonetics in Sanskrit (panini's), Computational concepts in Astadhyayi Importance of Verbs, Role of Sanskrit in Natural Language Processing, Number System and Units of Measurement, concept of zero and its importance, Large numbers & their representation, Place Value of Numerals, Decimal System, Measurements for time, distance and weight, Unique approaches to represent numbers (Bhūta Saṃkhya System, Kaṭapayādi System), Pingala and the Binary system, Knowledge Pyramid, Prameya – A Vaiśeṣikan approach to physical reality, constituents of the physical reality, Pramāṇa, Samśaya | 6 |
| III | Indian Mathematics & Astronomy in IKS Indian Mathematics, Great Mathematicians and their contributions, Arithmetic Operations, Geometry (Sulba Sutras, Aryabhatiya-bhasya), value of π , Trigonometry, Algebra, Chandah Sastra of Pingala, Indian Astronomy, celestial coordinate system, Elements of the Indian Calendar Aryabhatiya and the Siddhantic Tradition Pancanga – The Indian Calendar System Astronomical Instruments (Yantras) Jantar Mantar or Raja Jai Singh Sawal. | 6 |
| IV | Indian Science & Technology in IKS Indian S & T Heritage ,sixty-four art forms and occupational skills (64 Kalas) Metals and Metalworking technology (Copper, Gold, Zinc, Mercury, Lead and Silver), Iron & Steel, Dyes and Painting Technology), Town & Planning Architecture in India, Temple Architecture, Vastu Sastra, | 6 |
| V | Humanities & Social Sciences in IKS Health, Wellness & Psychology, Ayurveda Sleep and Food, Role of water in wellbeing Yoga way of life Indian approach to Psychology, the Triguna System Body-Mind-Intellect-Consciousness Complex. Governance, Public Administration & Management reference to ramayana, Artha Sastra, Kautilyan State | 6 |

References:

1. Textbook on IKS by Prof. B Mahadevan, IIM Bengaluru.
2. Kapur K and Singh A. K (Eds) 2005). Indian Knowledge Systems, Vol. 1. Indian Institute of Advanced Study, Shimla. Tatvabodh of Shankaracharya, Central Chinmay Mission Trust, Bombay, 1995.
3. Nair, Shantha N. Echoes of Ancient Indian Wisdom. New Delhi: Hindology Books, 2008.
4. SK Das, The Education System of Ancient hindus, Gyan Publication House, India
5. BL Gupta, Value and Distribution System in India, Gyan Publication House, India

6. Reshmi ramdhoni, Ancient Indian Culture and Civilisation, Star Publication, 2018
7. Supriya Lakshmi Mishra, Culture and History of Ancient India (With Special Reference of Sudras), 2020.
8. Gambirananda, Swami, Tr. Upanishads with the Commentary of Sankarachrya. Kolkata: Advaita Ashram, publication Department, 2002.
9. Ranganathananda, Swami. The Message of the Upanishads. Bombay: Bharathya Vidya Bhaven, 1985.
10. Om Prakash, Religion and Society in Ancient India, Bhariya Vidhya Prakashan, 1985
11. J Auboyer, Daily Life in Ancient India from Approximately 200 BC to AD 700, Munshi Ram Manohar, Publication, 1994.
12. DK Chakkrabarty, Makkhan Lal, History of Ancient India (Set of 5 Volumes), Aryan Book International, publication, 2014
13. Dr. Girish Nath Jha, Dr. Umesh Kumar Singh and Diwakar Mishra, Science and Technology in Ancient Indian Texts, DK Print World limited,
14. Swami BB Vishnu, Vedic Science and History - Ancient Indian's Contribution to the Modern World, gosa publication, 2015
15. Chatterjee, S.C. The Nyaya Theory of Knowledge. Calcutta: University of Calcutta Press, 1950.
16. Dasgupta, Surendra. A History of Indian Philosophy. Motilal Banarsidass Publishing House, 1991. Vols. III & IV.
17. Mercier, Jean L. From the Upanishads to Aurobindo. Bangalore: Asian Trading Corporation, 2001.
18. M. Hiriyanna. Essentials of Indian Philosophy. London: Diane Publications, 1985.
19. Hume, Robert Ernest, Tr. The Thirteen Principal Upanishads. Virginia: Oxford.
20. Radhakrishnan, S. Principal Upanishads. New York: Harper Collins, 1963.
21. Satprakashananda. The Methods of Knowledge according to Advaita Vedanta. Calcutta: Advaita Ashram, 2005.
22. Potter, K.H. Encyclopaedia of Indian Philosophies, Vol. III. Delhi: Motilal Banarsidass Publishing House, 2015.