

M. G. Science Institute, Ahmedabad

Autonomous | Affiliated to Gujarat University, Ahmedabad
(Managed by The Ahmedabad Education Society)

Department of English

Bachelor of Science (Hons.)

B.Sc. (Hons.)

(Effective from Academic Year 2024-25)

Semester-I
Indian Knowledge System
(IKS-117)



21

Objectives of the Course

- This course is designed to understand and enhance the holistic understanding of Indian Knowledge System.
- This course provides the basic understanding of the rich Indian knowledge system and its traditions.
- The course will introduce to the various ancient Indian Schools and its relevance in contemporary period with the great achievements of IKS to the world.
- It helps in understanding and analyzing the Ancient Indian knowledge system.

Outcomes of the Course

Learners will be able to...

- Understand the contribution of Indian minds in various fields
- Learn about the leading Indian inventors and thinkers in various disciplines
- Develop a positive attitude towards Indian traditions and practices
- Increase subject-awareness and self-esteem
- Develop a comprehensive understanding of how all knowledge is ultimately intertwined

Semester-I

Course Title: Indian Knowledge System

Course Code: IKS-117

Credits: 02

Programme	Teaching Hours	CIE	ESE	Total Marks
B.Sc.	40	25	25	50

Unit	Topic
1	Introduction to IKS <ul style="list-style-type: none">○ Introduction to IKS & Its importance<ul style="list-style-type: none">▪ Introduction & importance of IKS▪ Various IKS Systems○ Shashtra – Foundational Literature of Bharatvarsha<ul style="list-style-type: none">▪ What is Shashtra?▪ Importance of Shashtra▪ Classification of Shashtra – Vaidic & A vaidic (with examples of imp. Literature)
	<ul style="list-style-type: none">○ Base of IKS proliferation<ul style="list-style-type: none">▪ Bhartiya Education System and its philosophy▪ History of BES from Ancient to Modern▪ Domains of Education: Gurukul, Pathshala, Vidyalay, Vishva vidyalay

18

	<ul style="list-style-type: none"> ○ Base of IKS proliferation <ul style="list-style-type: none"> ▪ Bhartiya Education System and its philosophy ▪ History of BES from Ancient to Modern ▪ Domains of Education: Gurukul, Pathshala, Vidyalay, Vishva vidyalay
2	<p>Contribution of IKS to the World</p> <ul style="list-style-type: none"> ▪ Mathematics&Astronomy ▪ NumberSystem ▪ Algebra&Arithmetic ▪ Geometry ▪ Trigonometry ▪ PlanetarySystem ▪ SpeedofLight ▪ Eclipse ○ Lifesciences <ul style="list-style-type: none"> ▪ Physics ▪ Chemistry ▪ Botany ○ Metal Technology <ul style="list-style-type: none"> ▪ Mining Techniques ▪ Types of Metals
	<ul style="list-style-type: none"> ○ Town planning & Temple Architecture <ul style="list-style-type: none"> ▪ Indigenous tools & technologies for town planning & Temple Architecture ▪ Lothal, Mohanjo Daro, Dholavira ▪ Angkorvat, Lepakshi Temple, Jagannath Puri Temple, Thanjavur Temple, Modhera and Konark Sun Temple, Hampi Temple Etc.

	<ul style="list-style-type: none"> ○ Ayurveda <ul style="list-style-type: none"> ▪ Introduction of Ayurveda- Definition, Branches of Ayurveda, Books and Pioneers ▪ Indic Medical Science Achievement: Tools & Technology ○ Art & Traditions <ul style="list-style-type: none"> ▪ History and Origin ▪ Science behind our traditions and rituals
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Reference

Books:

- Introduction to Indian Knowledge System-Concept and Application by B.Mahadevan, Vinayak Rajat Bhat, Nagendra Pavan R.N.
- R.M.Pujari, Pradeep Kolhe, N.R.Kumar, 'Pride of India: A Glimpse into India's Scientific Heritage', Samskrita Bharati Publication.
- 'Indian Contribution to science', compiled by Vijnana Bharati.
- 'Knowledge traditions and Practices of India', Kapil Kapoor, Michel Danino, CBSE, India.

Reference Books:

- Dr. Subhash Kak, Computation in Ancient India, Mount, Meru Publishing (2016)
- Dharampal, Indian Science and Technology in the Eighteenth Century, Academy of Gandhian Studies, Hyderabad, 1971, republ. Other India Bookstore, Goa, 2000
- Robert Kanigel, The Man Who Knew Infinity: A Life of the Genius Ramanujan, Abacus, London, 1999
- Alok Kumar, Sciences of the Ancient Hindus: Unlocking Nature in the Pursuit of Salvation, CreateSpace Independent Publishing, 2014
- B.V. Subbarayappa, Science in India: A Historical Perspective, Rupa, New Delhi, 2013
- S. Balachandra Rao, Indian Mathematics and Astronomy: Some Landmarks, Jnana Deep Publications, Bangalore, 3rd ed., 2004

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(M. G. Science Institute)(Autonomous)

(Accredited "A" level by National Assessment And Accreditation Council, 2007)

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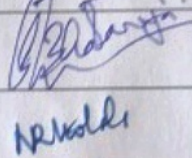
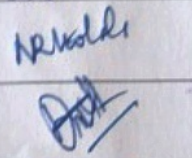
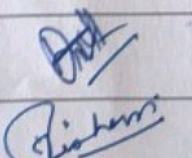
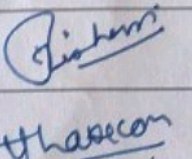
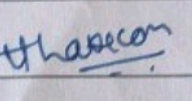
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Date:

Minutes of the meeting: The meeting of BOS members was organized on 2nd March, 2023 at 11.30am and different aspects of the syllabus were discussed threadbare and finally unanimously approved by the members of the BOS.

SIGNATORIES:

Board of studies (English):

Sr. No.	Name	Category	Sign.
1.	Dr. R.K. PUJARA	HOD	
2.	PROF. S.M. BHATAIYA	FACULTY	
3.	DR. NUTAN KOTAK	VC- NOMINEE GUJARAT UNI.	
4.	DR. CHARUDATT GURJAR	S.P. UNIVERSITY VIDYANAGAR	
5.	DR. KISHANKUMAR JOSHI	CVM UNIVERSITY, ANAND	
6.	DR. VAISHALI THAKKER	ALUMNI	

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