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॥ सिद्धिरनेकान्तात् ॥

Anekant Education Society's

TULJARAM CHATURCHAND COLLEGE
of Arts, Science and Commerce, Baramati - 413102.

Dist. Pune. Maharashtra, India.

Empowered Autonomous Status

Religious Minority Institute

NAAC Reaccredited 'A+' Grade, CGPA 3.55

NAAC-SSR

Cycle IV

2019 - 2024

Criterion III : Research, Innovations and Extension

3.3.1 Q_nM *Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident*

IKS Cell

The National Educational Policy 2020 (NEP 2020) recommends the incorporation of Indian Knowledge System (IKS) into the curriculum at all levels of education.

Indian Knowledge System encompasses all the systematized disciplines of Knowledge which were developed to a high degree of sophistication in India from ancient times and all of the traditions and practices that the various communities of India—including the tribal communities—have evolved, refined and preserved over generations. The UGC-recognized academic institutions provide undergraduate and postgraduate education to the most number of students in India and form the bedrock of the higher education system in India. Therefore, it is imperative that the curriculums in these institutions incorporate IKS-related subjects in their curricula to implement the NEP 2020 in letter and spirit.



List of IKS Courses 2023-24

Sr . N o.	Departm ent	Subj ect Code	Subject Name
1	Commerce	COM- 137- IKS	Ancient Tax System - I
Syllabus			<p style="text-align: center;">Topics and Learning Points</p> <p>Unit 1: Introduction to Indian Tax System 10 Lectures</p> <p>1.1 Meaning of tax, Nature and Scope 1.2 Objectives of Taxation in India, 1.3 Need and Importance 1.4 Characteristics of taxation in India</p> <p>Unit 2: Structure to Indian Tax System 12 Lectures</p> <p>2.1 Canons of Taxation 2.2 Constitutional background of taxation and distribution of revenue between Central and the States. 2.3 Introduction to Articles 245, 246 and 264 to 290A.</p> <hr/> <p style="text-align: center;">AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p style="text-align: center;">Department of Commerce F.Y. B.Com. Sem-I</p> <p>2.4 Schedule Seventh: List I, II and III. 2.5 Administrative set up of Indian Tax System & Procedure.</p> <p>Unit 3: Direct and Indirect taxes 08 Lectures</p> <p>3.1 Meaning and definition of Direct and Indirect taxes 3.2 Advantages and disadvantages of direct and indirect taxes 3.3 Distinction between Direct and Indirect taxes. 3.4 Direct and indirect taxes of Central Government & State Government.</p>
2	Physics	PHY- 137- IKS	Knowledge System of Bharata



	<h1>Syllabus</h1>	<div style="text-align: center; background-color: #4a86e8; color: white; padding: 2px;">Topics and Learning Points</div> <p>Unit 1: Bhāratīya Civilization and Development of Bhāratīya Knowledge System [8L] Genesis of the land, Antiquity of civilization. On the Trail of the Lost River, Discovery of the Saraswatī River, the Saraswatī-Sindhu Civilization, Traditional Knowledge System, The Vedas, Main Schools of Philosophy (6+3), Ancient Education System, the Takṣaśilā University, the Nālandā University, Alumni, Knowledge Export from Bhārata.</p> <p>Unit 2: Arts, Literature, and Scholars in Ancient Bharat [8L] Art, Music, and Dance, Naṭarāja– A Masterpiece of Bhāratīya Art, Literature, Life and works of Agastya, Lopāmudrā, Ghoṣā, Vālmīki, Patañjali, Vedavyāsa, Yājñavalkya, Gārgī, Maitreyī, Bodhāyana, Caraka, Susruta, Jivaka, Nāgārjuna, Kaṇāda, Patañjali, Kauṭilya, Pāṇini, Thiruvalluvar, Āryabhaṭa, Varāhamihira, ĀdiŚaṅkarācārya, Bhāskarācārya, Mādhavācārya.</p> <p>Unit 3: Ancient Bhārtīya Contribution towards Science & Mathematics [8L] Concept of Matter, Life and Universe, Gravity, Sage Agastya’s Model of Battery, Velocity of Light, Vimāna: Aeronautics, Vedic Cosmology and Modern Concepts, BhāratīyaKāla-gaṇanā, Kerala School for Mathematics and Astronomy, History and Culture of Astronomy, Sun, Earth, Moon, and Eclipses, Earth is Spherical and Rotation of Earth, Archaeoastronomy; Concepts of Zero and Pi, Number System, Pythagoras Theorem, and Vedic Mathematics.</p> <p>Unit 4: Ancient Bhārtīya Engineering, Technology & Architecture [6L] Pre-Harappan and Sindhu Valley Civilization, Laboratory and Apparatus, Juices, Dyes, Paints and Cements, Glass and Pottery, Metallurgy, Engineering Science and Technology in the Vedic Age and Post-Vedic Records, Iron Pillar of Delhi, Rakhigarhi, Mehrgarh, Sindhu Valley Civilization, Marine Technology, and Bet– Dwārka.</p>
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3	Chemistry CHE-137-IKS	Indian Heritage of Chemistry
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	<h1>Syllabus</h1>	<div style="text-align: center; background-color: #4a86e8; color: white; padding: 2px;">Topics and Learning Points</div> <div style="text-align: right; font-weight: bold; font-size: small;">Teaching Hours</div> <p>UNIT 1: Science and Technology in India 07 Development of science in ancient India, Scientific and technological developments in medieval India, Science and technology in modern India, Scientists of ancient India, Science and Scientists of medieval India, Scientists of Modern India</p> <p>UNIT 2: Chemistry in India: A Survey 08 Introduction, Early Chemical Techniques, Atomism in Vaiśeṣika, Chemistry in Early Literature, The Classical Age, Laboratory and Apparatus, the major chemical products that contributed to the development of chemistry – Metallurgy, glass, paper, soap, dyeing, cosmetic and perfumes, ink etc.</p> <p>UNIT 3: Metallurgy in India 05 Introduction, Metallurgy before and during the Harappan Civilization, Metallurgy after the Harappans, Iron Metallurgy, Wootz Steel, The Delhi Iron Pillar, Other Iron Pillars and Beams, zinc metallurgy, Social Context</p> <p>UNIT 4: Ancient India’s Contribution to Production of Dyes, Perfumes and Herbal Drugs 05 Introduction, The Distillation of Perfumes, The Making of Dyes and Pigments, the smelting of metals, the making of drugs and herbal compounds, the cultivation and processing of spices</p> <p>UNIT 5: Ayurveda for Life, Health and Wellbeing: A Survey 05</p> <hr style="border: 1px solid orange;"/> <p style="font-size: x-small; text-align: center;">AES’s T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 20px;"> [Department of Chemistry] [F.Y.B.Sc. Sem I] </div> <p style="font-size: x-small; margin-top: 10px;">Definition of Ayurveda, Integrative approach to healthcare, Balance of inner environment and personalized medicine. Harmony with the external environment. The principles of ayurvedic healing. The five elements in nature make up the human body, Treating diseases to restore health.</p> <div style="text-align: right; margin-top: 20px;">  </div>
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4	Botany	BOT-137-IKS	Botany in Ayurveda
	Syllabus		<p>UNIT: 1 (10L) 1.1 Definition, aim of Ayurveda, Brief description of Samhita and Ashtang. (06L) 1.2 Introduction to department of AYUSH, CCIM, CCRAS, RAV. (04L)</p> <p>UNIT: 2 (10L) 2.1 Ancient Bhartiya Contribution in Environment & Health Ethnic Studies, Life Science in Plants, Anatomy, Physiology, Agriculture, Ecology and Environment. (5L) 2.2 Integrated Approach to Healthcare, Medicine, Microbiology, Medicine, Surgery and Yoga, etc. (5L)</p> <hr/> <p style="text-align: right;">27</p> <p>AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p>Department of Botany F. Y. B.Sc. Semester-I</p> <p>UNIT: 3 (10L) 3.1 Study on following dravyas with respect to Sanskrit name, Common name, Botanical name, Family, habit, parts used Amalaki, Arjuna, Ashoka, Bhallataka, Bilva, Brahmi, Chandravaya, Chitraka, Daruharidra, Durva, ErandaGokshura, Guduchi, Nimba, Nirgudi, Punarnava, Shatavari, Tulsi, Lavangakeshara. (10L)</p>
5	Zoology	ZOO-137-IKS	Animal Diversity & Conservation in Indian Culture



TOPICS:

Syllabus			Unit No.	Subunit No	Details	Teaching Hours
	1. Sacred Animals of India (Non-chordates)			1.1	Introduction	06
				1.2	Ants & Bees	
				1.3	Praying Mantis	
				1.4	Butterflies	
				1.5	Spider	
	2. Sacred Animals of India (Chordates)			2.1	Fish	12
				2.2	Frog	
				2.3	Tortoise & Snakes	
				2.4	Eagle, Peacock, Owl	
				2.5	Cow, Elephant, Horse	
	3. Introduction to Animal Classification in Ancient India			3.1	Eagle	12
				3.2	Owl	
				3.3	Crow	
				3.4	Cow	
			3.5	Buffalo		
			3.6	Horse		
6	Microbiology	MIB-137-IKS	Ethno-Microbiology			



	Syllabus	<p>UNIT 1: Ancient Bhartiya Contribution towards Science & Mathematics (4L) Concept of Matter, Life and Universe, Gravity, Sage Agastya's Model of Battery, Velocity of Light, Vimāna: Aeronautics, Vedic Cosmology and Modern Concepts, Bhāratīya Kāla-gaṇanā, Kerala School for Mathematics and Astronomy, History and Culture of Astronomy, Sun, Earth, Moon, and Eclipses, Earth is Spherical and Rotation of Earth, Archaeoastronomy; Concepts of Zero and Pi, Number System, Pythagoras Theorem, and Vedic Mathematics</p> <p>UNIT 2: Ancient Bhartiya Contribution in Environment & Health (4L) Ethnic Studies, Life Science in Plants, Anatomy, Physiology, Agriculture, Ecology and Environment, Āyurveda, Integrated Approach to Healthcare, Medicine, Microbiology, Medicine, Surgery, and Yoga, etc.</p> <p>UNIT 3: Introduction to Ethno-microbiology (4L)</p> <ul style="list-style-type: none"> • Definition of Ethno-microbiology • Definition of Fermentation • Historic and cultural heritage of Indian fermented foods • Types of ethnic fermented foods • Benefits of fermented food <p>UNIT 4: Curd Fermentation (6L)</p> <ul style="list-style-type: none"> • Procedure of curd setting • Microorganisms present in curd • Role of microbes in setting curd • Benefits of consuming curd <p>UNIT 5: Idli Fermentation (6L)</p> <ul style="list-style-type: none"> • Preparation of idli batter and idli • Microorganisms present in idli batter • Role of microbes in fermenting idli batter • Benefits of consuming idli <p style="text-align: right;">38</p> <p style="text-align: center; background-color: #f0f0f0;">AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p>UNIT 6: Jilebi Fermentation (6L)</p> <ul style="list-style-type: none"> • Preparation of Jilebi batter and Jilebi • Microorganisms present in Jilebi batter • Role of microbes in fermenting Jilebi batter • Benefits of consuming Jilebi
7	Statistics STA-137-IKS	Evaluation of Science and Statistics in India
	Syllabus	<p>UNIT 1: Ancient Bhartiya Contribution towards Science & Mathematics (4L) Concept of Matter, Life and Universe, Gravity, Sage Agastya's Model of Battery, Velocity of Light, Vimāna: Aeronautics, Vedic Cosmology and Modern Concepts, Bhāratīya Kāla-gaṇanā, Kerala School for Mathematics and Astronomy, History and Culture of Astronomy, Sun, Earth, Moon, and Eclipses, Earth is Spherical and Rotation of Earth, Archaeoastronomy; Concepts of Zero and Pi, Number System, Pythagoras Theorem, and Vedic Mathematics</p> <p>UNIT 2: Ancient Bhartiya Contribution in Environment & Health (4L) Ethnic Studies, Life Science in Plants, Anatomy, Physiology, Agriculture, Ecology and Environment, Āyurveda, Integrated Approach to Healthcare, Medicine, Microbiology, Medicine, Surgery, and Yoga, etc.</p> <p>UNIT 3: Introduction to Ethno-microbiology (4L)</p> <ul style="list-style-type: none"> • Definition of Ethno-microbiology • Definition of Fermentation • Historic and cultural heritage of Indian fermented foods • Types of ethnic fermented foods • Benefits of fermented food <p>UNIT 4: Curd Fermentation (6L)</p> <ul style="list-style-type: none"> • Procedure of curd setting • Microorganisms present in curd • Role of microbes in setting curd • Benefits of consuming curd <p>UNIT 5: Idli Fermentation (6L)</p> <ul style="list-style-type: none"> • Preparation of idli batter and idli • Microorganisms present in idli batter • Role of microbes in fermenting idli batter • Benefits of consuming idli <p style="text-align: right;">38</p> <p style="text-align: center; background-color: #f0f0f0;">AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p>UNIT 6: Jilebi Fermentation (6L)</p> <ul style="list-style-type: none"> • Preparation of Jilebi batter and Jilebi • Microorganisms present in Jilebi batter • Role of microbes in fermenting Jilebi batter • Benefits of consuming Jilebi
8	Mathemati MAT-	Vedic Mathematics



	CS	137- IKS	
		Syllabus	<p style="text-align: right;">Learning Hours</p> <p>Unit 1: Arithmetical Computations 5</p> <p>1.1 Vedic Sutras 1.2 Multiplication 1.3 Division by Nikhilam Method 1.4 Division by Paravartya Method</p> <p>Unit 2: Factorization 6</p> <p>2.1 Factorization of Quadratics 2.2 Factorization of Cubics 2.3 Highest Common Factor</p> <p>Unit 3: Equations 5</p> <p>3.1 Simple Equations 3.2 Quadratic Equations 3.3 Cubic Equations 3.4 Bi-quadratic Equations</p> <p>Unit 4: Roots 8</p> <p>4.1 Square root 4.2 Cube roots of exact cubes 4.3 General Cube roots</p> <p>Unit 5: Geometry 6</p> <p>4.1 Pythagoras Theorem 4.2 Apollonius Theorem 4.3 Analytical Conics</p>
9	Electronics	ELE- 137- IKS	Evolution & Future Prospects of Electronics in India
		Syllabus	<div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center; background-color: #4a86e8; color: white; margin: -10px -10px 10px -10px;">Topics and Learning Points</p> <p>1. Introduction to Electronics Knowledge System:</p> <p>Define traditional knowledge, nature and characteristics, scope and importance, kinds of traditional knowledge. The need for protecting traditional knowledge, the value of traditional knowledge in the global economy, Role of Government to harness traditional knowledge.</p> <p style="text-align: center;">17</p> </div> <hr/> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>2. Science and Technology in India:</p> <p>Milestones of India in Science and Technology, IKS in ancient India and in modern India, History of Electronic industry development in India, Achievements of Indians in Science and Technology in Ancient and medieval India, Nobel laureates of India in Science, Achievements of Indians in Science & Technology in the modern era.</p> <p>3. Future Prospects:</p> <p>Impact of New Technologies and Applications, social networking sites- Facebook, LinkedIn, Instagram, myspace, twitter, Online chat, video chatting, Internet telephony- voice, video, blogs, ChatGPT, IoT, Artificial Intelligence.</p> </div>
10	Computer Science	COS- 137- IKS	Evolution of Computer



Syllabus	<p><i>TOPICS/CONTENTS:</i></p> <p>UNIT1: Early computing devices and beginning years (08 Lectures)</p> <ul style="list-style-type: none"> ▪ Early computing devices (Abacus, Pascal adding machine, Leibniz calculator, Difference Engine) ▪ Early inventors (Charles Babbage, Ada Lovelace, George Boole, Dr. Herman Hollerith). <hr/> <p style="text-align: right;">32</p> <p>AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p>Department of Computer Science F.Y.B.Sc.(Comp.Sci.) Semester-I</p> <p>John Von Neumann, Howard Aiken</p> <ul style="list-style-type: none"> ▪ The Turing Machine (mathematical model) : Concept, Example ▪ First programmable computers – Colossus, ENIAC ▪ Solid State Transistors (1947) and emergence of second generation of computers ▪ High Level Programming Languages: COBOL, FORTRAN, LISP and their features ▪ Program structure in COBOL, FORTRAN and LISP ▪ Invention of Integrated Circuits by Kilby and Noyce <p>UNIT 2: Middle years (10 Lectures)</p> <ul style="list-style-type: none"> ▪ BASIC language ▪ Invention of ARPANET ▪ First ever communication on a mobile phone by Martin Cooper ▪ Development of TCP/IP (Vint Cerf and Bob Kahn) and its features ▪ Launching of Apple-I(1976) and Apple-II(modern PC) (1977) ▪ VLSI ▪ Development of Pascal and its features ▪ Evolution of C language(1972) from B(1969), BCPL(1967), ALGOL 68(1968) and its features ▪ Development of Prolog language (1972) and its features ▪ Applications of Prolog ▪ Development of SQL by IBM (1972) and its features ▪ Importance of SQL ▪ Emergence of UNIX OS ▪ Rise of the Operating Systems (Linux, Microsoft Windows, Solaris, Mac OS) ▪ Comparison among different OS ▪ Evolution of C++ from C with classes (C + Simula 67) ▪ Features and applications of C++ <p>UNIT 3: Moving ahead towards future (12 Lectures)</p> <ul style="list-style-type: none"> ▪ The World Wide Web (www) and its importance ▪ Development of HTML ▪ Features and applications of HTML ▪ Development of Python, R, Java ▪ Features and applications of Python, R, Java ▪ Development of scripting languages: PHP, JavaScript, VBScript, ASP, JSP ▪ Features and applications of PHP, JavaScript, VBScript, ASP, JSP ▪ Comparison among PHP, JavaScript, VBScript, ASP, JSP ▪ Emergence of Cloud Computing ▪ Types of Cloud ▪ Artificial Intelligence: Machine Learning, Deep Learning ▪ Applications of Artificial Intelligence ▪ Internet of Things (IoT), Image Processing ▪ Development of Dart, Kotlin
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11	Environment Science	ENV-137-IKS	Environment, cultural values and society
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Syllabus	<p>Topics and Learning Points</p> <p style="text-align: right;">Teaching Hours</p> <p>UNIT 1: Bhāratīya Civilization and Development of Bhartiya Knowledge System 10</p> <p>Genesis of the land, Antiquity of civilization, On the Trail of the Lost River, Discovery of the Saraswati River, the Saraswati-Sindhu Civilization, Traditional Knowledge System, The Vedas, Main Schools of Philosophy, Ancient Education System, the Takṣaśīlā University, the Nālandā University, Alumni, Knowledge Export from Bhārata.</p> <p>UNIT 2: Unique Traditional Practices and Applied Traditional Knowledge 10</p> <p>Agriculture, animal husbandry, Forest, Sacred Groves, Sacred Water Bodies, Water Mills. Water and Soil Conservation and management Practices, Utilization Practices and Food Preservation Methods. Handicrafts, Wood Processing and Carving, -Fiber Extraction and Costumes. Role of tribal people in environmental conservation.</p> <p>Community participation in Environmental conservation- Role of communities, Individual-level initiatives to ensure sustainable development, case studies of environmental movements (Chipko Movement, Narmada Bachao Andolan). Role of NGOs and youth, Environmental education and awareness.</p> <p>UNIT 3: Women and environment 10</p> <p>Women response to environmental degradation, Women and environmental conservation, Prominent women environmentalist, Role of rural women in agricultural and social forestry sector, etc., Role of urban women in climate management, lifestyle choices and resource conservation, etc.</p>
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12	English	ENG-137-IKS	Beginning of English Studies in India-I																
	Syllabus		<p>TOPICS/CONTENTS:</p> <p>UNIT 1: Tracing the history of English in India(06lectures) 1. Introduction 2. East India Company and Education</p> <p style="text-align: center;">1</p> <hr style="border: 1px solid black;"/> <p>UNIT 2: IWE and English Studies Now(08lectures) 1. Introduction 2. The Domain of English in India 3. Colonialism</p> <p>UNIT3: Poems(08lectures) 1. To the Pupils of the Hindu College (Henry Derozio) 2. To a Young Hindu Widow (Kasiprasad Ghose) 3. Our Casuarina Tree (Toru Dutt) 4. Song of Radha the Milkmaid (Sarojini Naidu)</p> <p>UNIT4: Prose(08lectures) 1. The Cow and the Barricades (Raja Rao) 2. The Homecoming (Tagore)</p>																
13	Marathi	MAR-137-IKS	मानव्यहवद्या व लहलत कलांचा अभ्यास																
	Syllabus		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #4a86e8; color: white;"> <th colspan="4">Topics and Learning Points</th> </tr> <tr> <th style="width: 10%;">घटक</th> <th style="width: 60%;">तपशील</th> <th style="width: 10%;">श्रेयांक</th> <th style="width: 20%;">तासिका</th> </tr> </thead> <tbody> <tr> <td>१</td> <td>मानव्यविद्या स्वरूप व संकल्पना मानव्यविद्या शाखांचा परिचय १. तत्त्वज्ञान २. नीतीशास्त्र ३. भाषाशास्त्र ४. सौंदर्यशास्त्र</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">२</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">३०</td> </tr> <tr> <td>२</td> <td>ललित कला व कला व्यवहार १. साहित्य (प्रकार, भाषा, माध्यम, सामाजिक जीवनाशी संबंध) २. चित्रकला (स्वरूप, वैशिष्ट्ये, भाषा, माध्यम, सामाजिक जीवनाशी संबंध)</td> </tr> <tr> <td>३</td> <td>ललित कलांचा परिचय १. शिल्पकला परिचय २. वास्तुकला ३. ललित कला व्यवहाराचे प्रमुख घटक कलाकार, कलाकृती, आस्वादक</td> </tr> </tbody> </table>	Topics and Learning Points				घटक	तपशील	श्रेयांक	तासिका	१	मानव्यविद्या स्वरूप व संकल्पना मानव्यविद्या शाखांचा परिचय १. तत्त्वज्ञान २. नीतीशास्त्र ३. भाषाशास्त्र ४. सौंदर्यशास्त्र	२	३०	२	ललित कला व कला व्यवहार १. साहित्य (प्रकार, भाषा, माध्यम, सामाजिक जीवनाशी संबंध) २. चित्रकला (स्वरूप, वैशिष्ट्ये, भाषा, माध्यम, सामाजिक जीवनाशी संबंध)	३	ललित कलांचा परिचय १. शिल्पकला परिचय २. वास्तुकला ३. ललित कला व्यवहाराचे प्रमुख घटक कलाकार, कलाकृती, आस्वादक
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14	Hindi	HIN - 137-IKS	Sant Kabir Sahityik Parichay																




			<p style="text-align: center;">पाठ्यक्रम</p> <p style="text-align: center;">संत कबीर : साहित्यिक परिचय</p> <p style="text-align: center;">प्रथम सत्र [SEMISTER – I]</p> <p style="text-align: center;">PAPER CODE :HIN -137-IKS</p> <p>इकाई -1 1. भक्तिकाल का सामान्य परिचय 10 तासिकाएं 2. कबीर का व्यक्तित्व कृतित्व 3. कबीर का जीवन परिचय</p> <p>इकाई -2. संत कबीर के दोहे - 10 तासिकाएं 1. गुरुदेव कौ अंग - 3,14,15 2. विरह कौ अंग -4,6,22,45 3. निंदया कौ अंग- 3,4</p> <p>इकाई-3. 1. कबीर के धार्मिक विचार 10 तासिकाएं 2. समाजसुधारक के रूप में कबीर 3. कबीर का मानवतावादी दृष्टिकोण</p> <p>संदर्भ ग्रंथ :</p> <ol style="list-style-type: none"> कबीर - हजारीप्रसाद द्विवेदी कबीर संपा विजयेंद्र स्नातक कबीर की विचारधारा - डॉ गोविंद त्रिगुणायत कबीर साहित्य की परंपरा - आ. परशुराम चतुर्वेदी कबीर चिंतन और सर्जन - संपा आनंदप्रकाश दीक्षित कबीर एक विवेचन - डॉ सरनामसिंह शर्मा कबीर साधना और साहित्य - डॉ प्रतापसिंह चौहान कबीर एक अनुशीलन - डॉ रामकुमार वर्मा 																																
15	Geography	GEO-137-IKS	Ancient Indian Geographical Thoughts																																
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16	History	HIS-137-IKS	Popular Indian Culture																																



	Syllabus	<p style="text-align: center;">Topics and Learning Points</p> <p>Unit I Defining Popular Culture: (5 L) Popular Culture as Folk Culture, Mass Culture- High Culture, People's culture; Visual expressions: folk art, calendar art, photography, advertisements</p> <p>Unit II Oral culture/ performances: (9 L) folktales, folk theatre with social messages and nautanki; music- folksongs and folkdances</p> <p>Unit III The audio-visual medium: (9 L) cinema, television and internet (a) Indian cinema: major themes and trends like freedom struggle and nation building (b) Television: Case study of televised serials, Ramayana, Women and Family</p> <p>Unit IV Fairs, festivals and rituals, pilgrimage: (7 L) disentangling mythological stories; patronage; religion as culture; Food Cultures: Regional cuisines</p>
17	Psychology PSY-137 - IKS	Emergence of Indian Psychology
	Syllabus	<p style="text-align: center;">Topics and Learning Points</p> <p>Unit 1: Introduction to Indian Tax System 10 Lectures 1.1 Meaning of tax, Nature and Scope 1.2 Objectives of Taxation in India, 1.3 Need and Importance 1.4 Characteristics of taxation in India</p> <p>Unit 2: Structure to Indian Tax System 12 Lectures 2.1 Canons of Taxation 2.2 Constitutional background of taxation and distribution of revenue between Central and the States. 2.3 Introduction to Articles 245, 246 and 264 to 290A.</p> <p style="text-align: right;">42</p> <p>AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p> <hr/> <p style="text-align: center;">Department of Commerce F.Y. B.Com. Sem-I</p> <p>2.4 Schedule Seventh: List I, II and III. 2.5 Administrative set up of Indian Tax System & Procedure.</p> <p>Unit 3: Direct and Indirect taxes 08 Lectures 3.1 Meaning and definition of Direct and Indirect taxes 3.2 Advantages and disadvantages of direct and indirect taxes 3.3 Distinction between Direct and Indirect taxes. 3.4 Direct and indirect taxes of Central Government & State Government.</p>
18	Economics ECO-137 - IKS	Ancient Indian Economic Thoughts



	Syllabus		<p style="text-align: center;">TOPICS/CONTENTS</p> <p>UNIT 1: INTRODUCTION TO ANCIENT INDIAN ECONOMIC SYSTEM 10L 1.1 Definition and scope of ancient Indian economic thought 1.2 Importance of studying ancient Indian economic systems 1.3 Overview of ancient Indian civilization and its economic practices</p> <p>UNIT 2: MAURYAN ECONOMIC SYSTEM 10L 2.1 Economic policies and administration under Emperor Ashoka 2.2 The role of the state in economic affairs 2.3 Trade, agriculture, and taxation in Mauryan India</p> <p>UNIT 3: ECONOMIC THOUGHT IN THE ARTHASHASTRA 10L 3.1 Kautilya's Arthashastra as a treatise on statecraft and economics 3.2 Economic principles and policies advocated by Kautilya 3.2 Role of the state in economic development and welfare</p>
19	Politics Science	POL-137-IKS	Historical Background of Indian Political Thought
	Syllabus		<p style="text-align: center;">Topics and Learning Points</p> <p>UNIT 1: Ancient Indian Political Thought Teaching Hours</p> <p>1.1 Political Thought: concept and nature 10 1.2 State, People and Society 1.3 Concept of Power</p> <p>UNIT 2: Indian Legacy of Political Thought 10 2.1 <i>Shantiparv</i> in Mahabharat 2.2 Kautilya 2.3 Rajniti of Chhatrapati Shivaji Maharaj</p> <p>UNIT 3: Western Impact on Indian Political Thought 10 3.1 Political Background of British Colonialism 3.2 Bentham , J.S.Mill ,Spencer 3.3 Karl Marx ,Lenin ,Mao and Laski</p>
20	Defense and Strategic Studies	DEF-137-IKS	Peace and Harmony Studies Part-I
	Syllabus		<p style="text-align: center;">TOPICS/CONTENTS:</p> <p>UNIT1: (08) 1.1 Maratha Military System under Shri. Chhatrapati Shivaji 1.2 Third Battle of Panipat 1761 A.D. 1.3 Military System and pattern of war under Haider Ali and Tipu Sultan 1.4 Third Mysore War 1790 A.D.</p> <p>UNIT2: (08) 2.1 Sikh Military System under Dal Khalsa and Ranjeet Singh 2.2 Battle of Sobraon 1846 A.D. 2.3 Development of Presidency Army under East India Company, 2.4 Anglo –Maratha War with special reference to Battle of Assaye 1803 A.D.</p> <p>UNIT3: (06) 3.1 Cholas empire 3.2 Vijaynagar empire</p> <p>UNIT4: (08) 3.1 Indian War of Independence 1857 A.D. 3.2 Amalgamation of Presidency Armies 3.3 Reforms of Kitchener. 3.4 Reforms of Cornwallis.</p> 
21	Sociology	SOC -	Perspectives on Indian Society Thoughts

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23	Philosophy & Logic	PHI- 137- IKS	Ancient Indian Philosophical Knowledge																																										
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25	Food Technology	FTR-137-IKS	History of Indian Foods																																								



	Syllabus		<p>Student will learn about the Harappa civilization.</p> <p>Unit-1 Climate crop and prehistory of food in India: 08 Periods The physical environment, The climate, development of agriculture- pulses, grains, millets, fruits & vegetables, spices, prehistory- The Harappa civilization</p> <p>Unit-2 Introduction to food: 06 Periods Define- Food, philosophy of Indian food, the pre-ancient era, the ancient era, the agricultural revolution, classification of food</p> <p>Unit-3 History of Food Processing in India: 07 Periods Introduction, History, Scope of Food Preservation of India</p> <p>Unit-4 Indian Cuisine and Cooking Techniques: 09 Periods An overview of Indian cuisine, the meal, cooking techniques and equipments, Measurements in food</p>
26	Dairy Technology	DRT - 137-IKS	Milk and ancient Indian therapy
	Syllabus		<p style="text-align: center;">Topics and Learning Points</p> <p>UNIT 1: Bhāratīya Civilization and Development of Bhartiya Knowledge System 10P Genesis of the land, Antiquity of civilization, On the Trail of the Lost River, Discovery of the Saraswatī River, the Saraswatī-Sindhu Civilization, Traditional Knowledge System, The Vedas, Main Schools of Philosophy , Ancient Education System, the Takṣaśilā University, the Nālandā University, Alumni, Knowledge Export from Bhārata.</p> <p>Unit 2: Introduction to Ancient Indian Dairy Technology 10P Overview of ancient Indian dairy practices and their relevance in today. Vedic References of using Milk. Various Milk Products used in Yadnya. Historical evolution and significance of Milk & Milk Products in ancient India. References from Ramayana, Mahabharat, Kautiliya Arthashastra, Ayurveda, Manasollas, Agnipurana etc. Role of Dairy officer in Kautiliya Arthashastra.</p> <p>Unit 3: Dairy Animal Management. 10P Breeds of dairy animals in ancient India and their characteristics. Types & Characteristics of Buffaloes. Types & Characteristics of Cows. Role of Dairy officer in Kautiliya Arthashastra. Use of Milk & Milk Products in Ayurveda. Without Therapeutic Processing. As an adjunct .</p>
27	Retail Management	RTM- 137-IKS:	Evolution of Retail



Syllabus

CONTENT/TOPICS:

Units	Title & Content	No. of Lecture
Unit 1	<p>Retail 1.0 (Upto 1999)</p> <p>1.1 Traditional Brick and Mortar Retail: The early days of retail were characterized by physical stores where customers could visit to make purchases.</p> <p>1.2 These stores had limited product assortments and relied on face to face interactions</p>	10

AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP

Department of B.Voc Retail Management Semester-I

	<p>between customers and sales people.</p> <p>1.3 Dominated By Neighborhood Kiranas</p> <p>1.4 Unorganized Sector</p>	
Unit 2	<p>Retail 2.0 (2000-06)</p> <p>2.1 Rise of Department Stores and Chain Retailers</p> <p>2.2 Prominence Of Modern Retail</p> <p>2.3 Retail Operation</p> <p>2.4 Retail Management Techniques</p> <p>2.5 Organized Sector</p>	12
Unit 3	<p>Retail 3.0 (2007-2020)</p> <p>3.1 Online-led Retail Growth With The Promise Of Technology-Led Integration of India's Largely Fragmented Retail Ecosystem.</p> <p>3.2 Self-service in Retail Sector</p>	08

28	E-Commerce & Digital Marketing	ECD - 137-IKS	Evolution of E-Commerce & Digital marketing
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Syllabus	CONTENT OF SYLLABUS		
	UNIT	TOPIC	No. of Lectures
	1	History and evolution of E-Commerce: The Timeline Of The History Of eCommerce & Its Evolution, Milestones of e-commerce, e commerce tribute media	7
	2	How commerce is shifting to E-Commerce? Future of E-Commerce, Evolution of e-commerce and its growth	8
	3	History and evolution of Digital Marketing : Future of E-Commerce, Evolution of e-commerce and its growth	7
	4	Future of online shopping: M-Commerce & V-Commerce, The Future of Online Shopping: Predictions and Trends;	8
		30	

29	BBA-137-IKS	Indian Management Gurus and their Contributions.
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30	BCA-137-IKS	Indian Innovations in Computer and Technology								
Syllabus	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #4a86e8; color: white;"> <th style="text-align: left;">Topics and Learning Points</th> <th style="text-align: right;">Teaching Hours</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> UNIT 1: Bhārtiya Civilization and Development of Bhārtiya Knowledge System 1.1 Genesis of the land, Antiquity of civilization, On the Trail of the Lost River 1.2 Discovery of the Saraswati River, the Saraswati-Sindhu Civilization 1.3 Traditional Knowledge System 1.4 The Vedas, Main Schools of Philosophy(6+3) 1.5 Ancient Education System 1.6 the Takṣaśilā University 1.7 the Nālandā University 1.8 Alumni 1.9 Knowledge Export from Bhārata. </td> <td style="text-align: right; vertical-align: top;">08</td> </tr> <tr> <td style="vertical-align: top;"> UNIT 2: Ancient Bhārtiya Contribution towards Science & Mathematics 2.1 Concept of Matter 2.2 Life and Universe, Gravity 2.3 Sage Agastya's Model of Battery 2.4 Velocity of Light 2.5 Vimāna: Aeronautics 2.6 Vedic Cosmology and Modern Concepts, hāratīyaKāla-gaṇanā, 2.7 Kerala School for Mathematics and 2.8 Astronomy, History and Culture of Astronomy, Sun, Earth, Moon, and Eclipses 2.9 Earth is Spherical and Rotation of Earth, 2.10 Archaeoastronomy 2.11 Concepts of Zero and Pi, Number System, Pythagoras Theorem, and Vedic Mathematics. </td> <td style="text-align: right; vertical-align: top;">08</td> </tr> <tr> <td style="vertical-align: top;"> UNIT3: Ancient Bhārtiya Engineering, Technology & Architecture 3.1 Pre-Harappan and Sindhu Valley 3.2 Civilization, Laboratory and Apparatus, Juices, Dyes, Paints and Cements, Glass and Pottery, Metallurgy, 3.3 Engineering Science and Technology in the </td> <td style="text-align: right; vertical-align: top;">08</td> </tr> </tbody> </table>	Topics and Learning Points	Teaching Hours	UNIT 1: Bhārtiya Civilization and Development of Bhārtiya Knowledge System 1.1 Genesis of the land, Antiquity of civilization, On the Trail of the Lost River 1.2 Discovery of the Saraswati River, the Saraswati-Sindhu Civilization 1.3 Traditional Knowledge System 1.4 The Vedas, Main Schools of Philosophy(6+3) 1.5 Ancient Education System 1.6 the Takṣaśilā University 1.7 the Nālandā University 1.8 Alumni 1.9 Knowledge Export from Bhārata.	08	UNIT 2: Ancient Bhārtiya Contribution towards Science & Mathematics 2.1 Concept of Matter 2.2 Life and Universe, Gravity 2.3 Sage Agastya's Model of Battery 2.4 Velocity of Light 2.5 Vimāna: Aeronautics 2.6 Vedic Cosmology and Modern Concepts, hāratīyaKāla-gaṇanā, 2.7 Kerala School for Mathematics and 2.8 Astronomy, History and Culture of Astronomy, Sun, Earth, Moon, and Eclipses 2.9 Earth is Spherical and Rotation of Earth, 2.10 Archaeoastronomy 2.11 Concepts of Zero and Pi, Number System, Pythagoras Theorem, and Vedic Mathematics.	08	UNIT3: Ancient Bhārtiya Engineering, Technology & Architecture 3.1 Pre-Harappan and Sindhu Valley 3.2 Civilization, Laboratory and Apparatus, Juices, Dyes, Paints and Cements, Glass and Pottery, Metallurgy, 3.3 Engineering Science and Technology in the	08	<p style="text-align: right; margin-right: 20px;">31</p> <p>AES's T. C. College (Autonomous), Baramati. CBCS Syllabus 2023 Pattern as per NEP 2020</p>
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 Principal
 Tuljaram Chaturchand College
 Baramati