NEP FYUGP CURRICULUM

INDIAN KNOWLEDGE SYSTEM & SOCIAL AWARENESS

(IKS & SA)

FOR UNDER GRADUATE COURSES UNDER RANCHI UNIVERSITY, RANCHI

Common Syllabus for Semester-I & II

IKS in Semester III as MDC

Implemented w.e.f.
Academic Session 2025-26 Onwards

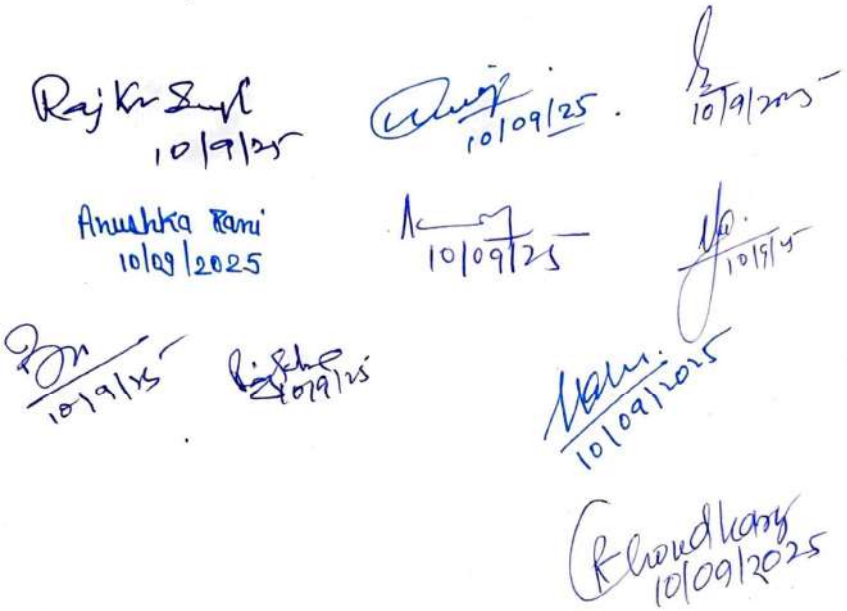
Syllabus for the Value added courses in Four-Year Undergraduate Programme (FYUGP) from Academic Session 2025-26 onwards

The Syllabus of Indian Knowledge System & Social Awareness (IKS & SA) approved by the NEP Implementation and Monitoring Committee of R.U., duly forwarded by the H.O.D. of concerned departments, will be offered to the Students of FYUGP. It is implemented from the 1st Semester of the 2025-26 session onwards.

*There will be **an objective-type test** consisting of questions worth 1 mark each in IKS. Examinees are required to mark their answers on the **OMR Sheet** provided by the University. The courses in the SA module provided by the DHTE will be a common course offered to the students of all Universities of Jharkhand. The evaluation method in SA course will be a regular assessment as it is described in the course.*

Approval by the Members of the NEP Implementation and Monitoring Committee of Ranchi University, Ranchi

The Curriculum of Bachelor's Degree (Honours)/ (Honours with Research) has been approved by the NEP Implementation and Monitoring Committee of R.U., duly forwarded by the Head of the Department; it will be offered to the students of the 4-year Undergraduate Programme (FYUGP). It is implemented from the 1st Semester of the Academic Session 2025-26 and onwards.



Member Secretory

CONTENTS

COURSE STRUCTURE FOR FYUGP 'HONOURS/ RESEARCH/ PG DIPLOMA' 3

Table 1: Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 164] *3*

Table 2: Semester-wise Course Code and Credit Points for Single Major during the First Three Years of FYUGP *4*

Table 3A: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Honours with Research) *5*

Table 3B: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Honours) *5*

Table 3C: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Postgraduate Diploma) *5*

SEMESTER – I (FOUNDATION COURSE) 7

INDIAN KNOWLEDGE SYSTEM-1 (IKS-1): 7

FOUNDATION COURSE 7

SEMESTER - II 9

SOCIAL AWARENESS ACTIVITIES (SA-1): 9

OR 11

SOCIAL AWARENESS ACTIVITIES (SA-2): 11

SEMESTER – III (MDC) 13

INDIAN KNOWLEDGE SYSTEM-2 (IKS-2): 13

MULTIDISCIPLINARY COURSES IN IKS *13*

SEMESTER – IV (CORE COURSE) 15

INDIAN KNOWLEDGE SYSTEM-3 (IKS-3): 15

INDIAN KNOWLEDGE SYSTEM IN THE SUBJECT CONCERNED *15*

Students are Instructed to

Refer Syllabus of Allied/ Opted Subjects from the R.U. Website

COURSE STRUCTURE FOR FYUGP **'HONOURS/ RESEARCH/ PG DIPLOMA'**

Table 1: Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 164]

Academic Level	**Level of Courses**	**Semester**	**MJ**; Discipline Specific Courses – Core or Major (60)	**AC**; Associated core courses from discipline/ Interdisciplinary/ vocational (8)		**ELC**; Elective courses may be opted from four paths [Follow table 4, 5 & 6] (16)	**MDC**; Multidisciplinary Courses (From a pool of Courses) (9)	**AEC**; Ability Enhancement Courses (Modern Indian Language and English) (8)	**SEC**; Skill Enhancement Courses (9)	**VAC**; Value Added Courses (6)	**IKS**; (i) Indian Knowledge System (2) & (ii) Social awareness (2)	**RC**; Research Courses (12)	**AMJ**; Advanced Courses instead of Research (12)	**Total Credits**	**IAP**; Internship/Apprenticeship/ Project/ Vocational course/ Dissertation (4)
	1	2	3 (80)	4 (32)			5	6	7	8	9	10	11	12	13
Level 4.5	Level 100-199: **Foundation or Introductory courses**	**I**	4	4	---	---	3	2	3	2	2	---	---	**20**	4
		II	4	---	4	---	3	2	3	2	2	---	---	**20**	
		Exit Point: Undergraduate Certificate provided with Summer Internship/ Project/ Vocational course/ Dissertation (4 credits)													
Level 5	Level 200-299: **Intermediate-level courses**	**III**	4+4	---		4	3	2	3	---	---	---	---	**20**	
		IV	4+4+4	---		4	---	2	---	2	---	---	---	**20**	
		Exit Point: Undergraduate Diploma provided with Summer Internship/ Project/ Vocational course/ Dissertation (4 credits)													
Level 5.5	Level 300-399: **Higher-level courses**	**V**	4+4+4+4	---		4	---	---	---	---	---	---	---	**20**	
		VI	4+4+4+4	---		4	---	---	---	---	---	---	---	**20**	
		Exit Point: Bachelor's Degree with Summer Internship/ Project/ Vocational course/ Dissertation (4 credits)												**120**	**+4**
	Honours with Research														
Level 6	Level 400-499: Advanced courses **A) Honours with Research (>7.5 CGPA)**	**VII**	4+4+4	---		4	---	---	---	---	---	4	---	**20**	---
		VIII	4+4	---		4	---	---	---	---	---	8	---	**20**	
		Exit Point: Bachelor's Degree with Hons. with Research												**OR**	
OR	**Honours**														
Level 6	Level 400-499: Advanced courses **B) Honours (>6.0 CGPA)**	**VII**	4+4+4	---		4	---	---	---	---	---	---	4	**20**	---
		VIII	4+4	---		4	---	---	---	---	---	---	4+4	**20**	
		Exit Point: Bachelor's Degree with Hons.												**OR**	
OR	**P.G. Diploma**														
Level 6	Level 400-499: Advanced courses **C) P.G. Diploma (>4.5 CGPA)**	**VII**	4+4+4	---		4	---	---	---	---	---	---	4	**20**	---
		VIII	4+4	---		4	---	---	---	---	---	---	4+4	**20**	
		Exit Point: P.G. Diploma (Level 6)												**160**	**+4**

Note: Honours students not undertaking research will do 3 courses for 12 credits in lieu of a Research project.

Implemented from Academic Session 2025-29 & Onwards

Table 2: Semester-wise Course Code and Credit Points for Single Major during the First Three Years of FYUGP

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits	
	Code	Papers	Paper	Semester
I	AEC-1	Language and Communication Skills (MIL-1; Modern Indian language Hindi/ English)	2	20
	VAC-1	Value Added Course-1	2	
	IKS-1	**Indian Knowledge System-I**	**2**	
	SEC-1	Skill Enhancement Course-1	3	
	MDC-1	Multi-disciplinary Course-1	3	
	AC-1	Associated core courses from discipline/ Interdisciplinary/ vocational	4	
	MJ-1	Major paper 1 (Disciplinary/ Interdisciplinary Major)	4	
II	AEC-2	Language and Communication Skills (MIL-1; Modern Indian language English/ Hindi)	2	20
	VAC-2	Value Added Course-2	2	
	SA	**Social Awareness Activities**	**2**	
	SEC-2	Skill Enhancement Course-2	3	
	MDC-2	Multi-disciplinary Course-2	3	
	AC-2	Associated core courses from discipline/ Interdisciplinary/ vocational	4	
	MJ-2	Major paper 2 (Disciplinary/ Interdisciplinary Major)	4	
III	AEC-3	Language and Communication Skills (MIL-2; MIL including TRL)	2	20
	SEC-3	Skill Enhancement Course-3	3	
	MDC-3	**IKS-2 as a Multi-disciplinary Course-3**	**3**	
	ELC-1	Elective courses from discipline/ Interdisciplinary/ vocational	4	
	MJ-3	Major paper 3 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-4	Major paper 4 (Disciplinary/ Interdisciplinary Major)	4	
IV	AEC-4	Language and Communication Skills (MIL-2; MIL including TRL)	2	20
	VAC-3	Value Added Course-3	2	
	ELC-2	Elective courses from discipline/ Interdisciplinary/ vocational	4	
	MJ-5	**Major paper 5 (Disciplinary/ Interdisciplinary Major having IKS-3)**	**4**	
	MJ-6	Major paper 6 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-7	Major paper 7 (Disciplinary/ Interdisciplinary Major)	4	
V	ELC-3	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-8	Major paper 8 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-9	Major paper 9 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-10	Major paper 10 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-11	Major paper 11 (Disciplinary/ Interdisciplinary Major)	4	
VI	ELC-4	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-12	Major paper 12 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-13	Major paper 13 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-14	Major paper 14 (Disciplinary/ Interdisciplinary Major)	4	
	MJ-15	Major paper 15 (Disciplinary/ Interdisciplinary Major)	4	
Total Credits excluding one Internship (IAP) of 4 credits =			**120+4* =124**	**120 + 4* =124**

*** Either One Internship of 4 credits or Two Internships of 2 credits each is required to complete in either of six semesters.**

Table 3A: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Honours with Research)

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits	
	Code	Papers	Paper	Semester
VII A	ELC-5	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-16	Major paper 16 (Research Methodology)	4	
	MJ-17	Major paper 17 (Disciplinary/Interdisciplinary Major)	4	
	MJ-18	Major paper 18 (Disciplinary/Interdisciplinary Major)	4	
	RC-1	Research proposal – Planning & Techniques (Disciplinary/Interdisciplinary Major)	4	
VIII A	ELC-6	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-19	Major paper 19 (Disciplinary/Interdisciplinary Major)	4	
	MJ-20	Major paper 20 (Disciplinary/Interdisciplinary Major)	4	
	RC-2	Research Internship/Field Work/Project/Dissertation/Thesis	8	
Total Credits excluding one Internship of 4 credits =			**160+4**	**160+4**

Table 3B: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Honours)

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits	
	Code	Papers	Paper	Semester
VII B	ELC-5	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-16	Major paper 16 (Disciplinary/Interdisciplinary Major)	4	
	MJ-17	Major paper 17 (Disciplinary/Interdisciplinary Major)	4	
	MJ-18	Major paper 18 (Disciplinary/Interdisciplinary Major)	4	
	AMJ-1	Advanced Major pape-1 (Disciplinary/Interdisciplinary Major)	4	
VIII B	ELC-6	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-19	Major paper 19 (Disciplinary/Interdisciplinary Major)	4	
	MJ-20	Major paper 20 (Disciplinary/Interdisciplinary Major)	4	
	AMJ-2	Advanced Major paper-2 (Disciplinary/Interdisciplinary Major)	4	
	AMJ-3	Advanced Major paper-3 (Disciplinary/Interdisciplinary Major)	4	
Total Credits excluding one Internship of 4 credits =			**160+4**	**160+4**

Table 3C: Semester-wise Course Code and Credit Points for Single Major during the Fourth Year of FYUGP for Bachelor's Degree (Postgraduate Diploma)

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits	
	Code	Papers	Paper	Semester
VII C	ELC-5	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-16	Major paper 16 (Disciplinary/Interdisciplinary Major)	4	
	MJ-17	Major paper 17 (Disciplinary/Interdisciplinary Major)	4	
	MJ-18	Major paper 18 (Disciplinary/Interdisciplinary Major)	4	
	JOC-1	Skill based Job Oriented paper (Disciplinary/Interdisciplinary Major)	4	
VIII C	ELC-6	Elective courses from discipline/ Interdisciplinary/ vocational	4	20
	MJ-19	Major paper 19 (Disciplinary/Interdisciplinary Major)	4	
	MJ-20	Major paper 20 (Disciplinary/Interdisciplinary Major)	4	
	JOC-2	Skill based Job Oriented paper (Disciplinary/Interdisciplinary Major)	4	
	JOC-3	Skill based Job Oriented paper (Disciplinary/Interdisciplinary Major)	4	
Total Credits excluding one Internship of 4 credits =			**160+4**	**160+4**

Note: Abbreviations used in Tables-2 - 3:

AEC	Ability Enhancement Courses
SEC	Skill Enhancement Courses
IAP	Internship/Apprenticeship/ Project
IKS	Indian Knowledge System
MDC	Multidisciplinary Courses
ELC	Elective Courses
MJ	Major Disciplinary/Interdisciplinary Courses
AC	Associated core courses from discipline/ Interdisciplinary/ vocational
MN	Minor Disciplinary/Interdisciplinary/vocational Courses
AMJ	Advanced Major Disciplinary/Interdisciplinary Courses
RC	Research Courses
JOC	Skill based Job Oriented course

SEMESTER – I (Foundation Course)

INDIAN KNOWLEDGE SYSTEM-1 (IKS-1):

Marks: 50 (ESE: 1.5 Hrs) = 50	Pass Marks: Th (ESE) = 20

(Credits: Theory-02)

Instruction to Question Setter for

End Semester University Examination (ESE 50 marks):

1. *There will be **Objective type test** consisting of questions of 1 mark each.*
2. *There will be 50 questions in the first paper of IKS of 2 credits in Semester-I.*
3. *The End Semester University Examination (ESUE) of 50 marks in Semester-I (IKS-1) will be of 1.5 Hrs.*
4. *Examinees are required to mark their answer on **OMR Sheet** provided by the University.*

FOUNDATION COURSE

Course Learning Outcomes:

By the end of this course, students will be able to:

1. Understand the foundational concepts and holistic philosophy of Indian Knowledge Systems.
2. Analyze the contributions of ancient India to science, technology, arts, and philosophy.
3. Appreciate the value-based traditions and ethics embedded in Indian thought.
4. Correlate traditional Indian wisdom with modern knowledge and practices.
5. Recognize the multidisciplinary nature of IKS and its relevance in contemporary society.
6. Reflect upon the Indian education system and its transformational potential.

Course Content:

Theory: 30 Periods of 01 Hr. each

UNIT 1: Introduction to Indian Knowledge System (IKS) **(05 Lectures)**

i. Meaning, definition, and scope of IKS
ii. Vocabulary of IKS
iii. Characteristics and classifications of IKS
iv. Vedas, Upanishads, Darshanas – philosophical foundation of IKS
v. Interdisciplinary approach of IKS
vi. Sources of Indian traditional knowledge
vii. Holistic and integral worldview of Indian tradition

UNIT 2: Indian Contribution to Science and Technology **(05 Lectures)**

i. Ancient Indian Mathematics: Sulbasutras, Aryabhata, Brahmagupta
ii. Astronomy: Vedanga Jyotisha, Surya Siddhanta
iii. Ayurveda: Charaka, Sushruta, health as balance (Tridosha)
iv. Metallurgy and Architecture: Iron Pillar, Temple designs
v. Traditional water management and sustainable technologies

UNIT 3: Indian Linguistic and Literary Traditions **(05 Lectures)**

i. Development of Sanskrit and regional languages
ii. Structure and grammar: Panini's Ashtadhyayi
iii. Indian poetics and aesthetics (Rasa theory)
iv. Epics and their cultural significance: Ramayana, Mahabharata
v. Bhakti and Sufi literature in regional languages
vi. Contribution of ancient Indian literature to moral education

UNIT 4: Indian Arts, Education and Knowledge Transmission **(05 Lectures)**

i. Gurukul, Pathshala, and ancient university systems (Nalanda, Takshashila)
ii. Indian art and architecture: paintings, sculpture, classical dance, music
iii. Role of oral tradition and storytelling in preserving knowledge
iv. Knowledge systems in crafts: textiles, pottery, metallurgy
v. Role of women in knowledge transmission
vi. Guru-Shishya Parampara

UNIT 5: Indian Ethical, Social, and Environmental Thought **(05 Lectures)**

i. Dharma, Artha, Kama, Moksha – Purusharthas
ii. Indian models of sustainable living and nature worship
iii. Role of family and society in ethical development
iv. Concept of 'Vasudhaiva Kutumbakam' and 'Sarva Dharma Sambhava'
v. Environmental values in Indian scriptures
vi. Relevance of Indian ethics in present-day challenges

UNIT 6: Contemporary Relevance and Integration of IKS **(05 Lectures)**

i. Need for IKS in modern education and research
ii. National Education Policy 2020 and IKS
iii. IKS and modern sciences: Complementarities and contrasts
iv. IKS for holistic health, wellness, and mindfulness
v. Innovation and entrepreneurship based on traditional knowledge
vi. Role of IKS in nation-building and global harmony

Suggested Readings & References:

1. Kapil Kapoor – Text and Interpretation: The Indian Tradition
2. Subhash Kak – The Astronomical Code of the Rigveda
3. Michel Danino – The Lost River: On the Trail of Sarasvati
4. Lokesh Chandra – Indian Heritage and Culture
5. IGNOU Study Materials on Indian Culture
6. Government of India, IKS Division – NAIKS Portal Resources

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SEMESTER - II

SOCIAL AWARENESS ACTIVITIES (SA-1):

Marks: 50 (SIA: 20 marks + ESE: 1.5 Hrs, 30 marks) = 50	Pass Marks: Th (SIEA + ESE) = 20

(Credits: Theory-02) Theory: 20 periods of 01 Hr. each
Activities: 10 periods of 02 Hr. each

Instruction to Question Setter for

Internal Assessment (20 marks):

1. *The student evaluation consists of attendance, one internal test, and a set of out-of-class activities.*
2. *In Class Test: The test will consist of multiple-choice and/or short answer (2-3 sentences) questions. The test will be conducted after covering 50% of the course.*
3. *The test will be of 5 marks. It will be mandatory to appear in the written test and activities for evaluation of a total of 20 marks.*
4. *Out-of-class Activities: Each of the 10 activities specified in the syllabus will receive full marks if turned in. The usual deliverable is a short report. Each activity will count the same.*
5. *The elements of evaluation will carry the following weights in computing the final course grade: Attendance: 5 marks, Internal Test: 5 marks; Out-of-class activities: 10 marks total, 1 mark per activity. Total internal assessment counts 20 marks*

End Semester University Examination (ESE 30 marks):

1. *There will be **Objective type test** consisting of questions of 1 mark each.*
2. *There will be 30 questions in the first paper of SA-1 of 2 credits in Semester-II.*
3. *The End Semester Examination (ESE) of 30 marks in Semester-II (SA-1) will be of 1.5 Hrs.*
4. *Examinees are required to mark their answer on **OMR Sheet** provided by the University.*

Summary of Evaluation Pattern (Toatal=50 marks):

S.No.	Evaluation Segment	Marks
1	Out of Class Activities	10
2	Semester Internal Assessment (SIA)	05
3	Attendance	05
4	End Semester Examination (ESE)	30
	Total =	**50**

Course Learning Outcomes:

This course is designed:

1. to develop students' awareness of the challenges society faces today.
2. to improve students' knowledge and skills to navigate such challenges, including those related to gender and women empowerment, road safety, water, sanitation and hygiene, and environmental sustainability.
3. to describe the benefits of democracy and how the Indian Constitution and institutions support it.
4. to enable students to understand what democracy is and what it requires of them.
5. to improve civic engagement among young people by highlighting their duties and motivating them to get informed, vote, and participate.
6. to prepare the learners for their roles and responsibilities as effective citizens of a democratic society.
7. to encourage students to actively learn about topics by participating in out-of-class activities tied closely to the theory covered in the class.

Course Content:

PART 1

UNIT I: General Social Awareness **(5 Lectures + 4 Activities)**

1. Introduction
2. Gender and women empowerment
3. Activity: Survey to understand challenges faced by working women
4. Road Safety
5. Activity: Road safety report using information from news articles
6. Water, sanitation and hygiene (WASH)
7. Activity: Effectiveness of government programs in addressing WASH challenges

8. Environmental sustainability
9. Activity: Environmental sustainability policies and their compliance

PART 2

UNIT II: Introduction to Civics (4 Lectures + 1 Activity)

1. What is democracy?
2. Benefits of democracy
3. Civic institutions
4. Democracy through history
5. Activity: Pick one major foreign country and study using resources available online how it has transitioned from autocracy to democracy, or vice versa

UNIT III: Democracy in India (2 Lectures + 2 Activities)

1. India and democracy
2. Activity: Watch Samvidhan episode 1
3. Elections in India
4. Activity: Survey friends and family about their opinions on democratic systems

UNIT IV: Alternatives to Democracy (2 Lectures)

1. What is life like under authoritarianism? Experiences from other countries
2. How democracies die: signs and symptoms

UNIT V: Your citizen duties and plan (5 Lectures + 3 Activities)

1. Persuading fellow citizens to turn out to vote
2. Activity: Create a motivational slogan to inspire others to vote and try it out
3. Defending democratic values everywhere
4. Activity: Register to obtain a voter ID + reading multiple sources of news
5. Identifying fake news and misinformation
6. Democracy in depth: Partnership vs. majoritarian democracy
7. Democracy in depth: Arguments for and against democracy
8. Activity: debate the merits and downsides of different forms of democracy with a friend

Reference Books:

1. Baluja, Ramesh. 2022. *Road Traffic Legislation – India*. New Delhi: Institute of Road Traffic Education.
2. Bandyopadhyay, Arnab, Jan Erik Nora, Dipan Bose, Krishnan Srinivasan, John Henry Faber Woodrooffe, Nitika Surie, and Anthony G. Bliss. 2020. *Delivering Road Safety in India: Leadership Priorities and Initiatives to 2030*. Washington, DC: World Bank Group.
3. Campbell, David E., Meira Levinson, and Frederick M. Hess, eds. 2012. *Making Civics Count: Citizenship Education for a New Generation*. Cambridge, MA: Harvard Education Press.
4. Kashyap, Subhash Chandra. 2024. *Our Constitution*. 5th ed. New Delhi: National Book Trust, Ministry of Education, Government of India. (Hindi edition: *Hamara Samvidhan*.)
5. Korbey, Holly. 2019. *Building Better Citizens: A New Civics Education for All*. Lanham, MD: Rowman & Littlefield.
6. Mehta, Balwant, and I. C. Awasthi. 2019. *Women and Labour Market Dynamics: New Insights and Evidences*. Singapore: Springer Nature.
7. National Council of Educational Research and Training. 2025. *Democratic Politics – I and II: Textbook in Political Science for Class IX and X*. Reprint 2025–26. New Delhi: NCERT.
8. Nath, KallolJit, and Veerappan P. Sharma, eds. 2017. *Water and Sanitation in the New Millennium*. New Delhi: Springer India.
9. Rajagopalan, Raghavachari. 2015. *Environmental Studies: From Crisis to Cure*. 3rd ed. New Delhi: Oxford University Press.
10. Sen, Amartya. 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford: Clarendon Press.
11. Sen, Amartya. 1999. *Development as Freedom*. New York: Alfred A. Knopf.
12. World Bank. 2023. *Global Water Security and Sanitation Partnership: Annual Report 2023*. Washington, DC: World Bank.

OR

SOCIAL AWARENESS ACTIVITIES (SA-2):

Marks: 50 (SIA: 20 marks + ESE: 1.5 Hrs, 30 marks) = 50	**Pass Marks: Th (SIEA + ESE) = 20**

(Credits: Theory-02) Theory: 20 periods of 01 Hr. each
Activities: 10 periods of 02 Hr. each

Instruction to Question Setter for
Internal Assessment (20 marks):

1. *The student evaluation consists of attendance, one internal test, and a set of out-of-class activities.*
2. *In Class Test: The test will consist of multiple-choice and/or short answer (2-3 sentences) questions. The test will be conducted after covering 50% of the course.*
3. *The test will be of 5 marks. It will be mandatory to appear in the written test and activities for evaluation of a total of 20 marks.*
4. *Out-of-class Activities: Each of the 10 activities specified in the syllabus will receive full marks if turned in. The usual deliverable is a short report. Each activity will count the same.*
5. *The elements of evaluation will carry the following weights in computing the final course grade: Attendance: 5 marks, Internal Test: 5 marks; Out-of-class activities: 10 marks total, 1 mark per activity. Total internal assessment counts 20 marks*

End Semester University Examination (ESE 30 marks):

1. *There will be **Objective type test** consisting of questions of 1 mark each.*
2. *There will be 30 questions in the first paper of SA-1 of 2 credits in Semester-II.*
3. *The End Semester Examination (ESE) of 30 marks in Semester-II (SA-1) will be of 1.5 Hrs.*
4. *Examinees are required to mark their answer on **OMR Sheet** provided by the University.*

Summary of Evaluation Pattern (Toatal=50 marks):

S.No.	Evaluation Segment	Marks
1	Out of Class Activities	10
2	Semester Internal Assessment (SIA)	05
3	Attendance	05
4	End Semester Examination (ESE)	30
	Total =	**50**

Course Learning Outcomes:

This course is designed:

1. to develop students' awareness of the challenges society faces today.
2. to improve students' knowledge and skills to navigate such challenges, including those related to gender and women empowerment, road safety, water, sanitation and hygiene, and environmental sustainability.
3. to describe the benefits of democracy and how the Indian Constitution and institutions support it.
4. to enable students to understand what democracy is and what it requires of them.
5. to improve civic engagement among young people by highlighting their duties and motivating them to get informed, vote, and participate.
6. to prepare the learners for their roles and responsibilities as effective citizens of a democratic society.
7. to encourage students to actively learn about topics by participating in out-of-class activities tied closely to the theory covered in the class.

Course Content:

PART 1
UNIT I: General Social Awareness **(5 Lectures + 4 Activities)**

1. Introduction
2. Gender and women empowerment
3. Activity: Survey to understand challenges faced by working women
4. Road Safety
5. Activity: Road safety report using information from news articles
6. Water, sanitation and hygiene (WASH)
7. Activity: Effectiveness of government programs in addressing WASH challenges
8. Environmental sustainability
9. Activity: Environmental sustainability policies and their compliance

PART 2

UNIT II: Understanding Drug Abuse and Addiction (4 Lectures + 1 Activity)

1. Concepts and overview of drug abuse
2. Physical and psychological dependence
3. Signs and symptoms of drug abuse
4. Commonly abused drugs and their effects
5. Activity: Summarize 2 recent news articles about drug-related problems in Jharkhand

UNIT III: Causes and Consequences of Drug Abuse (4 Lectures + 1 Activity)

1. Causes of drug abuse
2. Risks and consequences of drug abuse
3. Identifying and understanding drug abuse in youth - 1
4. Identifying and understanding drug abuse in youth - 2
5. Activity: Watch the assigned video on drug abuse in youth and extract main 3 lessons

UNIT IV: Management and Prevention Strategies (3 Lectures + 2 Activities)

1. Management of drug abuse
2. Activity: Familiarize yourself with resources for drug abuse prevention
3. Prevention of drug abuse
4. Stories of recovery
5. Activity: Design anti-drug poster or slogan aimed at prevention

UNIT V: Other Addictions and Risky Behavior (2 Lectures + 2 Activities)

1. Social media and phone addiction
2. Activity: Review usage statistics from own phone or that of friend or relative; count number of times friend or relative checks phone per day
3. Gambling addiction
4. Activity: Watch assigned video on gambling risk

Reference Books:

1. Baluja, Ramesh. 2022. *Road Traffic Legislation – India*. New Delhi: Institute of Road Traffic Education.
2. Bandyopadhyay, Arnab, Jan Erik Nora, Dipan Bose, Krishnan Srinivasan, John Henry Faber Woodrooffe, Nitika Surie, and Anthony G. Bliss. 2020. *Delivering Road Safety in India: Leadership Priorities and Initiatives to 2030*. Washington, DC: World Bank Group.
3. Ghuman, Ranjit Singh, Jatinder Singh, and Gurinder Kaur. 2023. *Dynamics of Drug Addiction and Abuse in India*. New Delhi: Routledge India.
4. Mehta, Balwant, and I. C. Awasthi. 2019. *Women and Labour Market Dynamics: New Insights and Evidences*. Singapore: Springer Nature.
5. Nath, KallolJit, and Veerappan P. Sharma, eds. 2017. *Water and Sanitation in the New Millennium*. New Delhi: Springer India.
6. Rajagopalan, Raghavachari. 2015. *Environmental Studies: From Crisis to Cure*. 3rd ed. New Delhi: Oxford University Press.
7. Sen, Arun Kumar. 1999. *Drug Abuse and Youth*. New Delhi: Gyan Publishing House.
8. Sharma, Rajeev, and Yogita Bansal. 2017. *Drug Abuse: Problem, Management and Prevention*. New Delhi: RD Publications.
9. United Nations Office on Drugs and Crime. 2024. *World Drug Report 2024*. New York: United Nations.
10. World Bank. 2023. *Global Water Security and Sanitation Partnership: Annual Report 2023*. Washington, DC: World Bank.

SEMESTER – III (MDC)

INDIAN KNOWLEDGE SYSTEM-2 (IKS-2):

Marks: 75 (ESE: 3Hrs) = 75	Pass Marks: Th (ESE) = 30

(Credits: Theory-03) **45 Hours**

Instruction to Question Setter for

End Semester University Examination (ESE 75 marks):

1. *There will be **Objective type test** consisting of questions of 1 mark each.*
2. *There will be 75 questions in the paper of 3 credits in Semester-III.*
3. *The End Semester University Examination (ESUE) of 75 marks in Semester-III (IKS-2) will be of 3 Hrs.*
4. *Examinees are required to mark their answer on **OMR Sheet** provided by the University.*

MULTIDISCIPLINARY COURSES IN IKS

Course Objectives:
After completing this unit, students will be able to:

1. To introduce students to the richness and depth of Indian Knowledge Systems (IKS) across disciplines.
2. To enable appreciation of India's indigenous contributions to science, arts, governance, health, and education.
3. To connect traditional knowledge with contemporary relevance and global outreach.
4. To provide interdisciplinary perspectives on IKS, integrating textual, practical, and philosophical insights.
5. To cultivate respect for indigenous knowledge traditions and inspire contextual innovation.

Course Learning Outcomes:
After completing this unit, students will be able to:

1. Understand and explain key foundations and branches of Indian Knowledge Systems.
2. Analyze the contributions of India in fields like astronomy, mathematics, health sciences, and language.
3. Recognize the cultural continuity and scientific rigor in IKS traditions.
4. Reflect upon the application of IKS in present-day education, health, governance, and sustainability.
5. Develop interdisciplinary insights and respect for Indian epistemological traditions.

Course Content:

UNIT I: Introduction to Indian Knowledge System **(08 Lectures)**

i. Meaning and scope of IKS
ii. Bharatavarsha: Unique geographical, ecological, and cultural endowments
iii. Importance of rivers, seasons, biodiversity, minerals, and social prosperity
iv. Geographical isolation and civilizational uniqueness
v. Cultural continuity through oral and textual traditions

UNIT II: Indian Language Sciences **(08 Lectures)**

i. Varnamala and classification of sounds in Indian languages
ii. Introduction to Vyakarana (Grammar), Siksha (Phonetics), Nirukta (Etymology), Chandas (Prosody)
iii. Panini and the purpose of grammar
iv. Role of language sciences in preserving Vedic corpus
v. Growth of Navya-Nyaya and Navya-Vyakarana

UNIT III: Indian Mathematics **(08 Lectures)**

i. Numbers, fractions, and geometry in the Vedas
ii. Decimal place value system, concept of zero and infinity
iii. Sulba Sutras and basic constructions
iv. Contributions of Aryabhata, Bhaskaracharya, Madhava, Kerala School
v. Legacy of Ramanujan

UNIT IV: Indian Astronomy **(07 Lectures)**

i. Observations in Vedic corpus: Sun, Moon, Nakshatras, Grahas
ii. Astronomy as the science of time, place, direction

iii. Aryabhata's planetary model and Nilakantha's revision
iv. Indian calendars, equinoxes, solstices
v. Observations, eclipses, instruments, and revival in 18–19th century

UNIT V: Indian Health Sciences (Ayurveda) **(07 Lectures)**

i. Vedic roots of Ayurveda
ii. Tridosha theory, Panchamahabhuta, Sapta Dhatu, Agni
iii. Concepts of health, disease, Dinacharya, Ritucharya
iv. Ancient surgeries: cataract, plastic surgery
v. Texts: Charaka Samhita, Sushruta Samhita
vi. Revival and modern relevance of Ayurveda and Yoga

UNIT VI: Indian Architecture & Fine Arts **(07 Lectures)**

i. Sthapatya Veda and town planning (Indus Valley, Jaipur)
ii. Symbolism in temple architecture
iii. Natyashastra and the science of aesthetics
iv. Indian dance, music, sculpture, and painting
v. Classical instruments and regional schools of art
vi. Contemporary revival of fine arts and architecture

Suggested Readings:

1. M.K. Sharan – *Foundations of Indian Culture*
2. S. Balachandra Rao – *Indian Astronomy: An Introduction*
3. K.S. Shukla & D. Sen – *History of Science, Philosophy and Culture in Indian Civilization*
4. P.V. Sharma – *Classical Texts of Ayurveda*
5. Kapil Kapoor – *Language, Linguistics and Literature: The Indian Perspective*
6. Subhash Kak – *The Astronomical Code of the Rigveda*
7. Debiprasad Chattopadhyaya – *History of Science and Technology in Ancient India*
8. S. R. Sarma – *Indian Mathematics and Astronomy*
9. Stella Kramrisch – *Indian Architecture and Sculpture*
10. Kapila Vatsyayan – *Traditions of Indian Folk and Performing Arts*

SEMESTER – IV (Core Course)

INDIAN KNOWLEDGE SYSTEM-3 (IKS-3):

Marks: 25 (5 Attd. + 20 SIE: 1Hr) + 75 (ESE: 3Hrs) = 100	**Pass Marks: Th (SIE + ESE) = 40**

(Credits: Theory-04) **60 Hours**

Instruction to Question Setter for

Mid Semester Examination (MSE 20 marks):

1. There will be two group of questions. **Group A is compulsory** which will contain two questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 will be a short answer type** of 5 marks. **Group B will contain descriptive type** two questions of ten marks each, out of which any one to be answered.
2. The Semester Internal Examination shall have two components.
    i. One Semester Internal Assessment Test (SIA) of 20 Marks,
    ii. Class Attendance Score (CAS) of 5 marks.

Conversion of Attendance into score may be as follows:
Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks.

End Semester University Examination (ESE 75 marks):

1. There will be two group of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No. 2 & 3 will be short answer type** of 5 marks.
2. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to be answered.

INDIAN KNOWLEDGE SYSTEM IN THE SUBJECT CONCERNED

This segment of the Courses of IKS is included with Syllabus of Major Courses. 50% of the credits apportioned to the IKS is related to the major discipline and are accounted for the credits assigned to the major discipline. Special care is taken to ensure that the course materials for these IKS courses are based on authentic sources—such as source texts, historical accounts, inscriptions and other records, material and other evidence, and also rigorous sociological records of current practices of different communities.

The continuity of the Indian Knowledge Traditions from ancient times up to the relatively recent period of the eighteenth or nineteenth century are emphasized in the design of the course content.

Efforts are made to highlight the characteristic features such as the objectives, methodology and core concepts of the Indian Knowledge Traditions, which distinguish them from other Knowledge Traditions of the world.

The course content is given in the syllabus of Major discipline of specialization in the fourth semester paper MJ5.
