Combination:

English- Economics / Math / Pol. Science / HistoryEconomics- Math / English / Pol. Science / HistoryMath- Economics / English / Pol. Science / History

First Semester

Course Code	Subject		Т	Р	Cr
ENG 111	English (Grammar)		1	0	3.5
HIST 112	History (History and Culture of India From AD 1526 -1707)		0	0	3
POL 113	DL 113 Pol. Science (Government in India and its functioning)		0	0	3
MATH 111	Matrics	4	0	0	4
MATH 112	Differential Equations	4	0	0	4
HU 003	Economics (Micro Economics)	4	0	0	4
	Sub – Total (I – Sem)	21	1	0	21.5

Second Semester

Course Code	Subject		Т	Р	Cr
ENG 121	English (Short Stories)	3	1	0	3.5
HIST 122	History (Modern Indian History and Culture, 1760 – 1947)	3	0	0	3
POL 123	Pol. Science (Modern Indian Political Thought)				3
MATH 121	Sequence and Series		0	0	4
MATH 122	Vector Calculus		0	0	4
HU 005	Economics (Macro Economics)		0	0	4
	Sub – Total (II Sem)	21	1	0	21.5

Third Semester

Course Code	Subject	L	Т	Р	Cr
ENG 131	English (Poetry)		1	0	3.5
HIST 132	History (Issues in World History – I) (20 th Century)		0	0	3
POL 133	Pol. Science (Society, Economy and Politics in H.P.)	3	0	0	3
MATH 131	Solid Geometry	4	0	0	4
MATH 132	Real Analysis	4	0	0	4
BM 005	Economics (Indian Economy)	4	0	0	4
	Sub – Total (III – Sem)	21	1	0	21.5

Fourth Semester

Course Code	Subject		Т	Р	Cr
ENG 141	English (Novel)	3	1	0	3.5
HIST 142	History (History and Culture of India from 1858 – 1950)	3	0	0	3
POL 143	Pol. Science (Political Ideologies)	3	0	0	3
MATH 141	Abstract Algebra	4	0	0	4
MATH 142	Linear Algebra	4	0	0	4
MA 007	Economics (Business Statistics)	3	1	2	4.5
HU 007	Value and Ethic	3	1	0	3.5
	Sub – Total (IV – Sem)	23	1	2	24

Fifth Semester

Course Code	Subject	L	Т	Р	Cr
ENG 151	English (Drama)	3	1	0	3.5
HIST 152	History (History and Culture of India from the Paleolithic Beginnings to the	3	0	0	3
	Mauryan Period)				
POL 153	Pol. Science (Introduction to Comparative Govt. and Politics)		0	0	3
MATH 151	Complex Analysis		0	0	4
MATH 152	Advanced Calculus		0	0	4
ECON 151	Economics (Development and Planning)		0	0	4
	Sub – Total (V – Sem)	21	1	0	21.5

Sixth Semester

Course Code	Subject		Т	Р	Cr
ENG 161	English (Phonetics)	3	1	0	3.5
HIST 162	History (Environmental History of India)		0	0	3
POL 163	163 Pol. Science (Colonialism in India and Constitutional Democracy)		0	0	3
MATH 161	Numerical Analysis	4	0	0	4
MATH 162	Statistics	4	0	0	4
ECON 161	Money and Banking	3	0	0	3
EN 001	Environmental Studies	3	1	0	3.5
	Sub – Total (VI – Sem)	23	2	0	24

Unit I Grammar:

L	Т	Р	Credit
3	0	0	3

I. Word Classes:

Open Word Classes: - Nouns, Verbs, Adjectives, Adverbs, Pronouns Closed Word Classes: - Prepositions, Conjunctions, Auxiliary Verbs, Interjection

II. Common Errors

Nouns and Pronouns, Articles, Verbs, Adjectives, Adverbs, Prepositions, Vocabulary

U nit II Short Stories:

Short Stories (Images - A Handbook of Stories Ed. M. M. Lukose, Macmillan)

Text Books

R. K. Narayan Pearl Buck The Axe The Refugees

Semester - II ENG121 English (Short Stories)

Unit I Short Stories:

A. J. Cronin Mark Twain O. Henry **Unit II Grammar**

I. Morphology:

Bound and Free Morphemes Affixes Stems and Roots Morphological Analysis

II. Phrases:

Noun Phrase Verb Phrase Genitive Phrase Adjective Phrase Prepositional Phrase Two Gentlemen of Verona Luck One Thousand Dollars

LT

3

1

P Credit

0 3.5

Semester – III ENG 131 English (Poetry)

L	Т	Р	Credit
3	1	0	3.5

Unit I. Poetry:

1) The Felling of the Banyan Tree – Dilip Chitre

- 2) On Television Roald Dahl
- 3) Abou Ben Adhem James Leigh Hunt
- Unit II. Grammar and Vocabulary: Antonyms, synonyms, one-word substitutes

Unit III. Written Communication: Note Making and Note Taking

Semester- IV

ENG141 English (Novel)

L	Т	Р	Credit
3	1	0	3.5

Unit I: NovelR.K. NarayanThe Dark RoomKamla MarkandayaNectar in a SieveUnit II: Grammar (Précis writing; Translation from English to Hindi)Unit III: Composition (Developing a Paragraph)

4

Semester - V ENG 151 English (Drama)

L	Т	Р	Credit
3	1	0	3.5

Unit I: Drama

William Shakespeare G.B. Shaw **Unit II:** Communication and its process

Romeo and Juliet Arms and the Man

Semester – VI

ENG 161 English (Phonetics)

Phonetics

- I. The Organs of Speech
- II. The Description and Classification of Speech Sounds
- III. The Description and Classification of Vowels
- IV. The Description and Classification of Consonants
- V. Phonetic symbols and the IPA
- VI. Phonology
- VII. Phoneme sequences and Consonant Cluster
- VIII. The Syllable
- IX. Intonation

L	Т	Р	Credit
3	1	0	3.5

Semester I

HIST 112 History and Culture of India, 1526-1707

L	Т	Р	Credit
3	0	0	3

Unit I

India in 1526 and the Mughal-Afghan Struggle: Babur's campaigns, Humayun and his difficulties, Sher Shah Suri and his administration, Rajput and religious policies of Akbar, Policy of the Mughals: Akbar to Jahangir.

Unit II

Expansion in the Deccan under Shahjahan and Aurangzeb, Jahangir Court politics, Relations with Central Asia under Shahjahan and Aurangzeb, Aurangzeb: The war of succession (1658-59), religious policy, Rise of Maratha power under Shivaji and his successors

Unit III

Land revenue system: Sher Shah to Aurangzeb, Decline of Mughal rule: peasant revolts and administrative crisis, Political ideas: theory of kingship, *sulh-i-kul*, the role of *ulema*, Administrative set upof *mansabdari*, *jagirdari*, central and provincial administration, Regional successor states: Hyderabad, Bengal and Awadh

Unit IV

Rise of European trade in India, Social Classes: zamindars, artisans, professional groups and traders, Agrarian economy: irrigation, agricultural practices, commercialization of agriculture

Text Books

1. Satish Chandra, *Medieval India from Sultanate to the Mughals* (Har Anand Publication, Delhi, 1997).

2. Harbans Mukhia, *The Mughals of India* (Blackwell, Malden MA, 2004).

3. M. Habib and K.A. Nizami, eds, *Comprehensive History of India*, Vol. V, The Delhi Sultanat (People Publishing House, New Delhi, 1970).

Reference Book

1. Tapan Raychaudhuri and Irfan Habib, eds, *The Cambridge Economic History of India, Vol. I C. 1200-C.1750* (Orient Longman in association with Cambridge University Press, Hyderabad, 1984).

2. S. A. A. Rizvi, *The Wonder that was India*, Vol. 2, (London, 1987, Reprint: Rupa, Calcutta, 1993).

Semester II HIST 122 Modern Indian History and Culture, 1760 - 1947

L T P Credit 3 0 0 3

Unit I

Ideologies of expansion: Mercantilism, Orientalism, Utilitarianism and Evangelicalism, Tools of expansion: War and Diplomacy, Bengal, Mysore, Central India, Sind and Punjab, Rohilla, Subsidiary Alliance, Doctrine and Lapse, Growth of colonial administrative apparatus, ideological influences, central, provincial, district and judicial administration.

Unit II

Nature and forms of resistance, Revolt of 1857 – causes, nature and results, Pre -1857 peasant and tribal movement, Peasant and workers movements – depressed class movements, communal politics and partition

Unit III

Political association and the Indian National Congress, Moderates, Extremists and Revolutionaries, Government of India Act 1935 and Provincial Ministries, Political developments in India during 1939 – 1945.

Unit IV

Land revenue settlement: permanent settlement, ryotwari and mahalwari, conditions of peasants and recurrent famines, Rise of Modern Industry, Spread of western education, Socio religious movements status of women. Indian Political – 1761 /1765 (Rise of British Power), Indian Political – 1905 (Partition of Bengal)

Text Book

- 1. Richard Overy, *The Times Complete History of the World* (6th edition, Collins, London, 2004).
- **2.** Tara Chand, *History of the Freedom Movement in India*, Vol. I (Publications Division, Government of India, New Delhi, 1965).

Reference Book

1. Sumit Sarkar, Modern India, 1885-1947 (Macmillan, Delhi, 2013).

Semester III HIST 132 Issues in World History – I (20th Century)

Unit I (Capitalism, Imperialism and the Political Consequences)

Industrialization under capitalism, imperialist expansion of Europe and the US The concept of modernity and its global implications World War I: causes, course, its human cost, long term consequences in Europe and in the world Paris Peace settlement and associated treaties, their political consequences

Unit II (The Communist Alternative)

Russian Revolution 1917: its origins, ideological assumptions and course Consequences of the Russian revolution for the internal political developments in the Soviet Union Impact of the Russian revolution in Europe

Long term implications of the Russian Revolution on China and the non-Western world

Unit III (Economic Trends in the Inter-War Period)

The period of post-war economic recovery and instability in Europe till 1929 Great Depression in USA: its causes and impact on industrialized countries Global impact of the Depression: colonial economies and agriculture The Soviet experience till 1941: the economic effects of state planning

Unit IV (Contesting Political Ideologies before World War II)

Fascist ideology and its contestation with liberalism and communism Social conditions in Europe during the inter-war period and experiments with parliamentary democracy

Rise of Fascism in Germany and Japan

World War II: Ideological issues during and immediately after the war

Text Books

- 1. E. J. Hobsbawm, The Age of Extremes. 1914–1991 (Vintage, New York, 1996).
- 2. Carter V. Findley and John Rothey, Twentieth-Century World (5th edition, Houghton-Mifflin, Boston, 2003).

3. Norman Lowe, *Mastering Modern World History* (Palgrave /Macmillan, London, 1997).

Reference Book

- 1. Jeffrey Weeks, Sex, Politics and Society: the Regulation of Sexuality in Britain Since 1800 (2nd edn, Longman, London, 1989).
- 2. John Dower, Embracing Defeat: Japan in the Wake of the World War Two (W.W.Norton, New York. 2000).
- 3. Basil Davidson, Modern Africa: A Social and Political History, (3rd edn, Addison-

L	Т	Р	Credit
3	0	0	3

Semester IV

	HIST 142	History	and Culture	of India	from	1858 -	1950
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Unit I (Society in Transition)

Reorganization of the British rule after 1857-58: administration, army, revenue and fiscal policies, Indian Council Act of 1892 Socio-religious reform and educational movements Debates about gender Caste question surfaces Imperialist policy towards industrialization

Unit II (Nationalism: Discontent and Dissension)

Rise of Indian Nationalism and 'Economic Nationalism' Formation of the Indian National Congress The Moderates and Extremists Partition of Bengal, Swadeshi Movement and formation of the Muslim League Revolutionaries and India at the end of the First World War

Unit III (The Age of Gandhian Politics)

The Emergence of Gandhi and his thoughts Rowlatt Satyagrah and Jallianwala Bagh Khilafat and Non-Cooperation Movements Civil Disobedience Movement Working class and women's participation

Unit IV (Freedom and Partition)

Act of 1935, Quit India Movement, The Turbulent Forties: World War II, INA Constitutional negotiations: Cabinet Mission, Mountbatten Plan Independence and Partition, Integration of princely states Making of the constitution

Text Books

- 1. B. R. Nanda, Making of India: India's Road to Independence, (New Delhi, 1998).
- **2.** Shekhar Bandopadhyay, *Plassy se Vibhajan Tak: Adhunik Bharat ka Itihas* (New edn, Orient BlakSwan, New Delhi, 2013).
- **3.** Shekhar Bandopadhyay, *From Plassey to Partition: A History of Modern India* (Orient Longman, New Delhi, 2004).
- 4. Sabhyasachi Bhattacharya, tr., Adhunik Bharat ka Arthik Itihas 1850-1947 (Delhi, 1990).

Reference Book

- 1. Bipan Chandra, et al., *India's Struggle for Independence*, 1857-1947 (Penguin, New Delhi, 1996).
- **2.** A. R. Desai, *Social Background of Indian Nationalism* (Popular Prakashan, Bombay, 1986).
- **3.** R. C. Majumdar et. al., *An Advanced History of India*, Part I & II, (Macmillan, New Delhi, 1967).
- 4. Tirthankar Roy, *The Economic History of India*, 1857-1947 (Oxford University Press, Delhi, 2000).

8

HIST 152 History and Culture of India from the Paleolithic Beginnings to the Mauryan Period

L	Т	Р	Credit
3	0	0	3

Unit I (Interpreting Early Indian Sources)

Understanding the sources of Indian History

Archaeological sources: stone tools, excavation reports, epigraphy, numismatics, monuments, pottery Literary sources: problems of dating early Indian literary sources: Sanskrit, Pali and regional languages; non-Indian sources, oral evidence

Geographical and ecological regions of India and their bearing on the evolution of early cultures in the subcontinent

Early interpreters of Indian History

Unit II (Hunter-Gatherers to Food Production)

Palaeolithic beginnings: distribution of tools and sequence, chronology and cultural evidence, arts and cults

Mesolithic cultures: regional distribution of sites, new developments in technology

Geographical and chronological distribution of Neolithic and Chalcolithic cultures in the subcontinent

Craft and technology of the Neolithic and Chalcolithic cultures

Unit III (The Harappan civilization)

Origins and extent Agriculture and subsistence Settlement pattern and town planning, craft production and trade Social and political organizations, cultural life Current debates on decline, and Late Harappan Cultures

Unit IV (Vedic to the Mauryan period)

Society and polity in the Vedic literature

Locating the Aryan: problems and current debates

The beginning of iron and its impact on social formation, religion and philosophy

The rise of the territorial states (*mahajanapadas*); the rise of renunciatory traditions and their social roots: Buddhism and Jainism

The Mauryan Empire: administration and economy, Ashoka's *dhamma*, art patronage, and the decline of the Mauryas

Text Books

- 1. D. P. Agrawala, The Archaeology of India (Select Book Service, New Delhi, 1984).
- 2. Bridget and Raymond Allchin, *The Birth of Indian Civilization: India and Pakistan before 500 BC* (With a new Introduction) (Penguin, New Delhi, 1993).
- 3. Bridget and Raymond Allchin, *The Rise of Civilization in India and Pakistan* (Cambridge University Press, Cambridge, 1988).

Reference Books

- 1. Dilip K. Chakrabarti, *India: An Archaeological History* (2nd edn, Oxford University Press, New Delhi, 2009).
- 2. R. C. Majumdar, et al., *History and Culture of the Indian People*, Vols. I, II, III, (Bharatiya Vidya Bhawan, Bombay, 1951-1966).
- 3. H. C. Raychaudhuri, *Political History of Ancient India* with a commentary by B. N. Mukherjee (Oxford University Press, New Delhi, 1996).

Semester VI

HIST 162 Environmental History of India

L	Т	Р	Credit
3	0	0	3

Unit I (Ecological Transformation and Evolution)

Meaning of Ecology Physical changes in South Asia Evolution of flora and fauna Early humans in India **Unit II (Human Societies and the Use of Natural Resources: A Conceptual Framework)** Hunting-gathering communities Pastoral peoples Emergence and spread of settled cultivation Modern industrial economies

Unit III (Pre-Modern (Ancient and Medieval) Societies and the Natural Environment)

Technology and environment: agriculture, irrigation, use of animal power, forests and disease Religion and environment: role of beliefs and practices Social structure and environment: role of caste and community Polity and environment: role of state and law

Unit IV (The Colonial and Post Colonial Exploitation of Nature)

Contesting claims on water and the commons, Impact of canals and big dams Famines and disease Controlling forests, colonial laws and pastoral societies Wildlife conservation and management of national parks

Text Books

- 1. Madhav Gadgil and Ramchandra Guha, *This Fissured Land. An Ecological History of India* (Oxford University Press, New Delhi, 1999).
- **2.** Madhav Gadgil and Ramachandra Guha, *Ecology and Equity*, (Penguin, New Delhi, 1995).
- **3.** Irfan Habib, *Man and Environment. The Ecological History of India*, (A People's History of India Series, Vol. 36), Aligarh Historian Society (Tulika Books, New Delhi, 2010).

Reference Books

- 1. Nandini Sinha Kapur, ed., *Environmental History of India: A Reader* (Oxford University Press, New Delhi, 2011).
- **2.** Deepak Kumar, et al, *British Empire and Natural World*, (Oxford University Press, New Delhi, 2010).
- 3. S. M. Mathur, *Physical Geology of India* (National Book Trust, New Delhi 1986).
- 4. Mahesh Rangarajan, *Fencing the Forests* (Oxford University Press, New Delhi, 1996).
- 5. Mahesh Rangarajan, India's Wildlife History: An Introduction (Permanent Black, 2001).
- 6. Mahesh Rangarajan and K. Sivarama Krishnan, *India's Environment History*, 2 vols (Permanent Black, Ranikhet, 2013).
- 7. O. K. H. Spate and A. T. A. Learmonth, *India and Pakistan: A General and Regional Geography* (Methun, London, 1967).

Semester - I

Political Science

POL 113 GOVERNMENTS IN INDIA AND ITS FUNCTIONING

UNIT I

(LEGISLATURE)

Composition, Powers and Position of Lok Sabha and Rajya Sabha Speaker of Lok Sabha Legislative Processes in Parliament Working of Parliament

UNIT II

(UNION EXECUTIVE)

President of India: Election, Powers and Position Cabinet form of Government Prime Minister: Appointment, Powers and Position

UNIT III

(JUDICIARY)

Features of Judicial System in India Composition, Powers and Position of Supreme Court Judicial Review, Judicial Activism and Lok Adalat

UNIT IV

Finance Commission Planning Commission National Development Council.

Text Book:

1. D. Kapur and P.B. Mehta (ed.), Public Institution in India, Performance and Design, New Delhi: Oxford University Press, 2005.

2. B.L. Shankar and V. Rodriguez, The Indian Parliament: A Democracy at Work, New Delhi: Oxford University Press, 2011.

3. A. Austin, Working a Democratic Constitution, New Delhi: Oxford University Press, 2000. A.K. Mehra and G.W. Kueck (eds.), The Indian Parliament: A Comparative Perspective, New Delhi: Konark Publishers, 2003.

Reference Books

1. L.I. Rudolph and S.H. Rudolph, Explaining Indian Democracy: A Fifty Year Perspective 1956-2006, New Delhi: Oxford University Press, 2008.

2. B. Arora and D. Verney (eds.), Multiple Identities in a Single State: Indian Federalism in Comparative Perspective, Delhi: Konark 1995.

3. K. Le Roy, C. Saunders and J. Kincaid (eds.), A Global Dialogue on Federalism, Montreal: Queen's University Press, 2006.

4. W.H. Morris. Jones, Government and Politics in India, London: Unwin 1971.

L	Т	Р	Credit
3	0	0	3

Semester - II

Political Science

POL 123 MODERN INDIAN POLITICAL THOUGHT

L	Т	Р	Credit
3	0	0	3

UNIT I

Rammohan Roy: Rights, Vivekananda: Humanism, Tagore: Critique of Nationalism

UNIT II

M.N. Roy: Radical Humanism, Gandhi: Ends and Means 27, Aurobindo : Nationalism

UNIT III

J.L. Nehru: Secularism, Savarkar : Hindutva, M. Jinnah: Two Nation Theory

UNIT IV

Ambedkar: Social Justice, J.P. Narayan: Total Revolution, R.M. Lohia : Socialism

Text Book

1. Adi H. Doctor, JP's Total Revolution: An Exercise in Utopia. Delhi: Seema Publications, 1987.

2. A.V. Rathna Reddy, The Political Philosophy of Swami Vivekananda. New Delhi: Sterling Publishers, 1984.

3. Thomas Pantham & Kenneth L. Deutsch. Political Thought in Modern India. New Delhi: Sage Publications, 1996.

Reference Books

1..V.P. Verma. Modern Indian Political Thought Agra: Lakshmi Narain Agarwal, 1980.

2.W.N. Kuber. Ambedkar: A Critical Study. New Delhi: People's Publishing House, 1973.

3.Jaffrelot Christophe. Dr. Ambedkar and Untouchability Analysing and Fighting Caste. Delhi: Permanent Black, 2004.

4. Karan Singh. Prophet of Indian nationalism: A Study of Political Thought of Sri Aurobindo Ghosh (1893-1910).

5.Bombay: Bharatiya Vidya Bhawan, 1970. Raghavan Iyer. The Moral and Political Thought of Mahatma Gandhi: Delhi: Oxford University Press, 1973.

6. M.N. Roy. New Humanism: A Manifesto. Delhi: Ajanta Publications, 1981. J. Bondurant. Conquest of Violence: the Gandhian Philosophy of Conflict.

Semester – III Pol. Science

POL 133 SOCIETY, ECONOMY AND POLITICS IN HIMACHAL PRADESH

L	Т	Р	Credit
3	0	0	3

UNIT I

Politics of Statehood, Movement for attaining status of separate State Geography, Climate and Population

UNIT II

Economy of Himachal Pradesh: Horticulture, Agriculture, Business, Trade and Industry, Tourism and Hydro-electric Projects

UNIT III

Development of Political Parties, Major political Parties, their support base and performance in the election, Politics of Pressure Groups

UNIT IV

Caste Politics in Himachal Pradesh, Politics of Sub-regionalism in Himachal Pradesh, Panchayati Raj in Himachal Pradesh before and after 73rd Amendments

Text Book

1. M.S. Ahluwalia, History of Himachal Pradesh, New Delhi, Intellectual Publishing House, 1988.

2. Mian Goverdhan Singh, History, Culture and Economy of Himachal, Shimla: Minerva Publishers, 1994.

Reference Books

3. Ranbir Sharma, Party Politics in a Himalayan State, Delhi: National Publishing House, 1977.

4. Ramesh K. Verma, Regionalism and Sub-Regionalism in State Politics, New Delhi, Deep and Deep Publications, 1994.

5. Shakuntala, Panchayati Raj in Himachal, Delhi, Deep and Deep Publication, 1994.

Semester – IV Pol. Science POL153 Political Ideologies

L	Т	Р	Credit
3	0	0	3

UNIT I LIBERALISM

Meaning and Characteristics of Liberalism, Development of Liberalism: Negative and Positive

UNIT II THEORIES OF DEMOCRACY

Classical Liberal Theory of Democracy Elite Theory of Democracy Pluralist Theory of Democracy Marxist Theory of Democracy

UNIT III MARXISM

Marxian Interpretation of History Marxian Theory of Social and Political Change Theory of Revolution

UNIT IV SOCIALISM AND FASCISM

Socialism: Meaning, Features and Development Fascism: Meaning, Features and Development

Text Book

- **1.** M.P. Jain, Political Theory: Liberal and Marxian (Delhi: Authors Guild Publications, 1993).
- 2. F.W. Coker, Recent Political Thought (Calcutta: The Words Press, 1966).
- 3. W. Ebenstein, Great Political Thinkers (New Delhi: Oxford and IBH, 1974).
- **4.** J.A. Schumpeter, Capitalism, Socialism and Democracy (London: George Allen & Unwin, 1976).
- **5.** C.B. Macpherson, The Life and Times of Liberal Democracy, Oxford: Oxford University Press, 1977.

Reference Book

- 1. G. Sartori, Democratic Theory (New Delhi: Oxford and IBH, 1965).
- 2. Shibdas Ghosh, On Fascism (Calcutta: SUCI, 1975).
- **3.** Ruggiero, "Liberalism" in E.R.A. Seligman ed., Encyclopedia of the Social Sciences, Vol. IV (NV. 1937).
- 4. M. Freeden, The New Liberalism: An Ideology of Social Reform (London: OUP, 1978).
- 5. D. Held, Models of Democracy (Cambridge: Polity Press, 1987).

Semester V

Pol. Science POL 153 Introductions to Comparative Government and Politics

UNIT I

Meaning, Nature and Scope of Comparative Politics Importance, Objectives and Utility Comparative Methods, Its Nature and Problems

UNIT II

System Approach (David Easton) Structural-Functional Approach Institutional Approach

UNIT III

Parliamentary Forms of Government Presidential Forms of Government Unitary and Federal Forms of Government

UNIT IV (Typology of Political System)

Liberal Democratic Authoritarian Totalitarian

Text Books

- 1. A.H. Birch, The British System of Government, London: George Allen, 1970.
- 2. C. Wright Mills, Power Elites New York, Oxford University Press, 1957.
- **3.** G.A. Almond and B. Powell, Comparative Politics: A Developmental Approach, Boston: Little Brown 1966.
- 4. Eckstein and D. Apter, Comparative Politics, A Reader, New York: Free Press 1963.

Reference Books

1. Jean Blondel, Comparative Politics, New York Free Press, 1963.

2. Lester W. Milbrachard, M.L. Goel, Political Participation, Chicago: Rand Menally College Pub. Co.,1971.

3. Mehran Kamrava, Understanding Comparative Politics: A Framework for Analysis London: 1996.

- 4. R.C. Macridis, The Study of Comparative Government, Garden City Doubleday, 1955.
- 5. Robert A. Dhal, Who Governs ? New Haven: Yale University Press 1961.

6. Samansen and Ashish Bhandari, Advance Readings in Comparative Government and Politics, New Delhi, Sandarbh, 1998.

7.T.B. Bottomore, Elities and Societies, Penguin, 1971.

8. Vidya Bhushan, Comparative Politics, New Delhi, Atlantic Pub., 1997

Т	Р	Credit
0	0	3
	T 0	T P 0 0

Semester VI Pol. Science POL 163 Colonialism in India and Constitutional Democracy

L	Т	Р	Credit
3	0	0	3

UNIT I

Foundations of Colonial Rule in India Nature of Colonial Rule in India Impact of Colonial Rule in India Causes of nationalism in India Phases of Indian National Movement

UNIT II

Legacies of Indian Political System: Legacy of Ancient India, Muslim Rule, British Rule and National Movement Formation and Socio-economic composition of the Constituent Assembly The Philosophy of the Indian Constitution Features of the Indian Constitution

UNIT III

Fundamental Rights and Duties Directive Principles of State Policy Amendment procedure of Indian Constitution

UNIT IV

Federal and Unitary Features of the Indian Constitution Centre-State Relations Question of State Autonomy Three tier system of Government: Panchayati Raj, Urban Local Bodies

Text Book

- **1.** S. Bandopadhyay, from Plassey to Partition: A History of Modern India, New Delhi, Orient Longman, 2004.
- **2.** Metcalf and Metcalf, A Concise History of India, Cambridge: Cambridge University Press, 2002.
- 3. S. Sarkar, Modern India 1885-1947, New Delhi: Macmillan 1983.
- 4. B. Chandra, Essays on Colonialism Hyderabad Orient Longman Ltd. 1999.

Reference Books

- 1. P.R. Desouza ed., Contemporary India: Transitions, New Delhi: Sage 2000.
- 2. A.D. Smith, Nationalism, Cambridge: Polity Press 2001.
- 3. A.S. Narang, Government and Politics in India.
- 4. C.P. Bhambari, Politics in India : 1947-1977
- 5. D.C. Gupta, Indian Government and Politics
- 6. M.P. Jain, Indian Government and Politics

MATH - 111 (MATRICS)

Unit – 1

Definition of Matrices, symmetric and skew-symmetric matrices, Hermitian and skew-Hermitian matrices. Elementary operations on matrices . Determinants and properties of determinants.

Unit – II

Dimensions of row and column spaces, row-rank, column-rank and rank of a matrix (Normal form).

Eigenvalues, eigen vectors and the characteristic equation of a matrix. Caley-Hamilton theorem and its use to find the inverse of a matrix.

Unit – III

Applications of matrices to system of linear homogenous and non-homogeneous equations. Consistency of system of linear equations. Linear Transformations, Linear dependent and independent vectors.

Unit – IV

Relation between roots and coefficients of general Polynomial equation of one variable. Transformation of equations. Horner's method. Descarte's rule of signs(without proof) to find the nature of the roots of an equation. Solution of cubic equations (Cardon's method) and biquadratic equations (Ferrari's and Descarte's Method).

Unit – V

De-Moivre's Theorem and its applications. Expansion of trigonometric functions (expansion of powers of $\sin\theta$ and $\cos\theta$ in terms of multiples of sines and cosines and vice-versa). Summation of sine and cosine series only.

Text Book

1. H.S. Hall and S.R. Knight: Higher algebra H.M. Publications 1994

2. Shanti Narayan: A Text Book of Matrices, S. Chand & Co.

3. Chandrika Prasad: Text book of algebra and theory of equations, Pothishala pvt. Ltd. Allahabad.

Credit Т Р 0 4 0 4

MATH -112 (DIFFERENTIAL EQUATIONS)

L	Т	Р	Credit
4	0	0	4

Unit-1

Linear differential equations. Basic theory of linear differential equations with constant coefficients. Non homogeneous linear differential equations with constant coefficients. Method of variation of parameters to solve second degree equations.

Unit-II

Cauchy-Euler equation. Legendre's differential equation. System of linear differential equations with constant coefficients. Differential operators and homogeneous linear system of differential equations (two equations in two unknown functions).

Unit – III

Differential equations of first order but not of first degree. Equations solvable for p, y and x. Clairaut's equation and equations reducible to Clairaut's equation. Singular solution of differential equations .

Unit – IV

Partial differential equation of the first order in two independent variables. Formulation of first order PDE. Solution of Linear first order PDE (Lagrange's method). Integral surfaces passing through a given curve. Solution of non-linear PDE of first order by Charpit's method. Second order PDE equations, Classification of 2nd order PDE. Solution of linear PDE with constant coefficients. Monge's method to solve the non-linear PDE R r + Ss + Tt = V (only).

Unit – V

Power series solution of differential equations and orthogonal functions. Solutions of Power series method and its basis. Solution of Bessel and Legendre's Equations. Properties of Bessel's and Legendre's functions.

Text Books

1. D.A. Murray: Introductory course in differential equations, Orient Longman (India) 1967

2. S.L. Ross, Differential Equations, John Wiley and Sons. Partial differential Equations3. J.N. Sharma and Kehar Singh, Partial Differential Equations for Engineers and Scientists.

Narosa

Publishing House.

4. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and sons. New York.

5. S. L. Ross, Differential Equations, John Wiley Student Edition, Third Edition, 2004.

SEMESTER-II

MATH 121 (SEQUENCES AND SERIES)

L	Т	Р	Credit
4	0	0	4

Unit –I

Real sequences and their convergence. Theorem on limits of the sequence. Bounded and monotonic sequence and theorems based on them. Cauchy's First and second theorem on the limit of the sequence. Cauchy's Sequence. Cauchy's general principle of convergence.

Unit – II

Convergence and divergence of infinite series. Positive term series, comparison test for positive term series. Cauchy's general principle of convergence of the series.

Unit – III

Convergence and divergence of geometric series. Harmonic series or p-series. Cauchy's condensation test (Without Proof), Cauchy's root test.

Unit – IV

D-Alembert's Ratio test, Kummer's test, Raabe's test, De Morgan and Bertrand test, Logarithmic test, Cauchy's integral test, Gauss test.

Unit-V

Alternating series. Leibnitz's test. Absolute and conditional convergence. Series of arbitrary terms. Abel's lemma, Abel's test. Dirichlet's test. Multiplication of series and Abel's test for product of Series.

Text Book

1. R.R. Goldberg, Real Analysis, Oxford and I.B.H. Publishing co., New Delhi, 1970.

2. S.C. Malik, Mathematical Analysis, Wiley eastern Ltd. Allahabad.

3. Shanti Narayan, A Course in Mathematical Analysis, S. Chand and Co., New Delhi.

SEMESTER-II MATH 122 (VECTOR CALCULUS)

L	Т	Р	Credit
4	0	0	4

Unit –I

Scalar and vector product of three vectors. Product of four vectors. Reciprocal vectors. Vector differentiation, Scalar valued point functions, vector valued point functions. Derivative along a curve, directional derivatives.

Unit – II

Gradient of a scalar point function. Geometrical interpretation of gradient of a scalar point function $(\text{grad}\phi)$. Divergence and curl of a vector point function. Character of divergence and curl of a vector point function.

Unit – III

Gradient, Divergence and Curl of sums and products and their related vector identities. Laplacian operator. Orthogonal curvilinear coordinates. Conditions for orthogonality. Fundamental triads of mutually orthogonal unit vectors.

Unit – IV

Gradient, Divergence, Curl and Laplacian operators in terms of orthogonal curvilinear coordinators. Cylindrical and Spherical coordinates: relation between Cartesian and cylindrical or spherical coordinates.

Unit-V

Vector integration: line integral, surface integral, Volume integral. Theorems of Gauss, Green and Stokes and the problems based on these theorems.

Text Book

1. Murray R. Spiegal: Theory and problems of Advanced calculus, Schaum Publishing company, New

York.

2. Murray R. Spiegal: Vector Analysis, Schaum Publishing company, New York.

3. Shanti Narayan: A Text book of vector calculus: S Chand and Co. New Delhi.

SEMESTER-III

MATH-131 (SOLID GEOMETRY)

L	Т	Р	Credit
4	0	0	4

Unit –I

General equation of second degree, Tangent and normal at any point of the conic. Chord of contact. Pole of a line to the conic. Director circle of conic. Polar equation of a conic, Tangent and normal to the conic in the polar form and their geometrical properties.

Unit – II

Sphere. Plane section of a sphere. Sphere through a given circle. Intersection of two spheres. Radical plane. Radical line and Radical point in spheres. Co-axial system of spheres.

Unit – III

Line integrals, rectifiable arcs, line integral as function of arcs, Cauchy's theorem for a rectangle, Cauchy's theorem in a disk. The index of a point with respect to a closed curve. The integral formula. Higher derivatives.

Unit-IV

General equation of second degree in x, y and z, Central conicoids, principal plane, Classification of conicoids, Equation of tangent plane, Director sphere of an ellipsoid, Equation of a normal at a point, normals from a given point to a paraboloid and an ellipsoid.

Unit-V

Finding centre and equation of the surface referred to the centre as origin, Reduction of equation to the standard form and nature of the surface represented by it.

Text Books

1. Shanti Narayan, Analytic Solid Geometry, S. Chand and Company, New Delhi.

SEMESTER-III

MATH -132 (REAL ANALYSIS)

L	Т	Р	Credit
4	0	0	4

Unit –I

Definition and examples of metric spaces, neighbourhood limit points, Interior points, open and close sets, closure, interior and boundary points in a metric space and theorem based on them.

Unit – II

Definition and existence of Riemann integral, refinement of partitions and theorems based on them. Darboux's theorem, condition of integrability.

Unit – III

The integrability of the sum and difference of integrable functions. The fundamental theorem of integral calculus. First and second mean value theorems of calculus.

Unit – IV

Improper integrals and their convergence, Comparison tests Abel's and Dirichlet's test of improper functions.

Unit-V

Fourier series: Fourier expansion of piecewise monotonic functions, properties of Fourier coefficients Parseval's identity for Fourier series, Fourier series for even and odd functions, half range series, change of intervals.

Text Books

1. Shanti Narayan, Theory of functions of complex variables, S. Chand & Company New Delhi.

2. T.M. Apostel, Mathematical Analysis Narosa Publishing House N.D 1985.

3. R.R.Goldberg, Mathematical Analysis, Oxford & IBH publishing House, New Delhi.

4. D.Soma Sundrem & V. Chowdhari, Course in Mathematical Analysis, Narosa Publishing House N.D 1985.

5. Shanti Narayan, A Course of Mathematical Analysis, S. Chand & Company, New Delhi.

SEMESTER-IV

MATH- 141 (ABSTRACT ALGEBRA)

L	Т	Р	Credit
4	0	0	4

Unit I

Definition of group with examples and simple properties of groups, subgroups and theorems based on subgroups, Centre of a group, Generation of groups, cyclic groups.

Unit II

Cosets, Left and right Cosets, Normal Subgroups and their properties, Quotients groups. Permutation of groups, Even and odd permutations.

Unit III

Homomorphism of groups, Isomorphism of groups. Automorphism of a group and inner automorphisms of a group.

Unit IV

Introduction of Rings, sub-rings, Integral Domain and fields, Characteristics of Rings. Ring homomorphisms. Ideals (Principal, Prime and maximal) and quotient rings. Field of quotients of an integral domain.

Unit V

Introduction of bineary operations, Permutation groups, cyclic groups, Semi groups and monoid,

Congurence Relations and Quotient structures.

Text Books

.I. N. Herstein: Topics in Algebra, Wiley Eastern Company, New Delhi, 1975.

2. Vivek Shahi and Vikas Bist : Algebra, Narosa Publishing House.

3.P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul ; Basic Abstract Algebra (2nd Edition).

SEMESTER-IV MATH -142 (LINEAR ALGEBRA)

L	Т	Р	Credit
4	0	0	4

Unit I

Vector Space, Subspaces, Sum and Direct sum of Subspaces, Linear span. Linearly independent and linearly dependent subsets of a vector space. Finitely generated vector space Existence theorem for basis of finitely generated vector space(statement only), Invariance of number of elements of basis sets. Dimension of vector space.

Unit II

Homomorphism and Isomorphism of vector spaces. Linear transformation and their algebra. Representation of transformation by matrices. Linear functionals. Null space and range space of a linear transformation, rank and nullity theorem.

Unit III

Algebra of linear transformations. Minimal polynomial of linear transformation. Singular and non- singular linear transformations. Matrix of linear transformation, change of basis, eigenvalues and eigenvectors of a linear transformation.

Unit IV

Inner product Spaces. Cauchy-Schwartz inequality. Orthogonal vectors. Orthogonal complements, Orthonormal sets and basis.

Unit V

Bessel's inequality for finite dimensional vector spaces . Gram- Schmidt orthogonalization process and problems based on it.

Text Books

- 1. I.N. Herstein: "Topics in Algebra", Wiley Eastern Company, New Delhi, 1975.
- 2. Hoffman and R. Kunze; Linear Algebra, 2nd Edition, Prentice Hall of India, Delhi.
- 3. Vivek Shahi and Vikas Bist : Algebra, Narosa Publishing House.
- 4. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul ; Basic Abstract Algebra (2nd Edition)

SEMESTER-V MATH -151 (COMPLEX ANALYSIS)

L	Т	Р	Credit
4	0	0	4

Unit I

Function of complex variable, Trigonometric, exponential, Euler's Theorem, Direct and Inverse hyperbolic functions, relations between trigonometric and hyperbolic functions, Logarithm of a complex quantity.

Unit-II

Analytic function, harmonic function, determination of conjugate function. Milne-Thomson method, Cauchy Riemann equations (Cartesian and polar forms).

Unit-III

Conformal mappings. Necessary and sufficient conditions for w=f(z) to represent a conformal mapping (Statement only). Some elementary transformation like translation, rotation, magnification and Magnification and rotation.

Unit-IV

Mobius Transformations. Resultant of two bilinear transformations. Every bilinear transformation is the resultant of elementary transformation with simple geometric properties, Cross ratio .

Unit-V

Fixed points, Inverse points with respect to a circle, Complex integrations, Definite integral, Cauchy Theorem and Cauchy's integral formula.

Books recommended :

1. Shanti Narayan: "Theory of functions of complex variables, S.Chand and Co., New Delhi.

2. T.M. Apostol : Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.

3. R.R. Goldberg : Real Analysis, Oxford and IBH Publishing Co., , New Delhi, 1970.

4. D. Somasundram and B. Chaudhary; A first course in Mathematical Analysis, Narosa Publishing

House, New Delhi, 1997.

5. Shanti Narayan; A first course in Mathematical Analysis, S.Chand and Co., New Delhi.

L	Т	Р	Credit
4	0	0	4

Unit I

Limit and continuity of functions of two variables, partial differentiation change of variables, Jacobians Maxima, Minima and Saddle points of functions of two variables. Lagrange's multiplier method .

Unit-II

Quadrature, rectification. Evaluation of area and volume by double and triple integral respectively (Cartesian and parametric forms). Beta and Gamma functions and their properties. Problems based on Beta and Gamma functions .

Unit-III

Partial Derivation and differentiability of real valued functions of two variables. Schwartz and young's Theorem. Implicit function Theorem (case of two variables). Euler's Theorem on Homogenous functions. Taylor's Theorem for functions of two variables .

Unit-IV

Calculus of variations: Variational problems with fixed boundaries. Euler's equation for functional containing first order derivatives and one independent variable. Extremals.

Unit-V

Functionals dependent on higher order derivatives. Functionals dependent on more than one independent variables. Variational problems in parametric form .

Books Recommended

1. S.C. Malik and Savita Arora, Mathematical Analysis, New Age International Pvt. Ltd. Publishers.

2. Shanti Narayana, Intergal Calculus, S. Chand and Co. New Delhi.

3. A.S. Gupta, Calculus of variations with applications, Prentice Hall of India Pvt. Ltd New Delhi.

SEMESTER-V MATH -161(NUMERICAL ANALYSIS)

L	Т	Р	Credit
4	0	0	4

Unit I

Solution of equation: Bisection Method, Secant Method, Regula – Falsi Method and Newton's Method.

Unit-II

Linear equations: Gauss - Elimination Method, Jacobi Method, Gauss- Seidal Method. LU

De-composition method

Unit-III

Ordinary Differential Equations; Euler" s Method, Single- step Method, Runge-Kutta" s IInd and IVth order method, Multi -step Method, Milne-Simpson Method.

Unit-IV

Interpolation: Lagrange and Newton Interpolation, Newton" s – Gregory Forward interpolation formula, Divided difference, Newton" s divided differences formula,

Unit-V

Numerical Integration: Newton – Cote" s 1/3 rule, Simpson 3/8th rule, Gauss Quadrature formulas. Curve fitting and power method.

Books Recommended:

- 1. E. Balagurusamy, Numercial Methods, Tata Mc-Graw Hill Pub. C. Ltd, New Delhi 1999.
- 2. M.K. Jain, S.R.K. Iyengar and R.K. Jain, Numerical Methods Scientific and Engineering Computation, New Age International Publishers, 4th Edition, New Delhi, 2003.

SEMESTER-VI MATH -162 (STATISTICS)

L	Т	Р	Credit
4	0	0	4

Unit I

Meaning of statistical survey, stages, planning and execution of survey. Meaning of sampling, laws and methods of sampling. Meaning of collection of data, primary and secondary data. Methods of collecting primary data. Types of diagrammatic presentation of data and graphical presentation of data.

Unit II

Measures of Dispersion, skewness and Kurtosis; Bivariate data distribution, Scatter diagram, Principle of least square and its application in fitting of curves.

Unit-III

Correlation, Correlation of ranks, Correlation and linear regression. A random variable, Concept of mathematical expectation and its simple properties. Moments and moment generating function.

Unit-IV

Discrete and continuous distributions, Binomial, Poisson's, geometric and normal distributions and their properties.

Unit-V

Sampling distributions, test of significance, sampling of variables and attributes. Chi-square test for the population variance and goodness of fit. Student" s t-distribution test for single mean and difference of two means. F-test for the equality of two population variances.

Books Recommended:

1. A.M. Mood and F.A. Graybil; Introduction to theory of Statics: Mc Graw Hill Book Co.1968. 2. V.K. Rohtagi, An introduction to Probability and Mathematical Statistics, John Wiley and sons, 1976.

3. J.N. Kapur and H.C. Saxena : Mathematical Statistics, S.Chand and Co., New Delhi.
4. S.C. Gupta and V.K. Kapoor, Fundamentals of Mathematical Statistics, Sultan Chand & Co.
5. H. C. Taneja: Statistical Methods for Engineering and Sciences, I. K. Pvt. Int., 2011.

Semester - I

Economics

HU 003 Micro Economics

4004

LTPCr

Objectives: To provide understanding of the basic concepts and issues in business economics and their application in business decisions.

MODULE-I

Introduction to Business Economics and Fundamental concepts Nature, Scope, Definitions of Business Economics, Difference Between Business Economic and Economics, Contribution and Application of Business Economics to Business, Micro Vs. Macro Economics, Opportunity Costs, Time Value of Money, Marginalism, Instrumentalism, Market forces and Equilibrium, Risk, Return and Profits. (10 hours)

Consumer Behaviour and: Cardinal Utility Approach: Diminishing Marginal Utility, Law of Equi-Marginal Utility. Ordinal Utility Approach: Indifference Curves, Marginal Rate of Substitution, Budget Line and Consumer Equilibrium.(6 hours)

MODULE-II

Demand Analysis : Theory of Demand, Law of Demand, Movement along Vs. Shift in Demand Curve, Concept of Measurement of Elasticity of Demand, Factors Affecting Elasticity of Demand, Income Elasticity of Demand, Cross Elasticity of Demand, Advertising Elasticity of Demand and Expectation Elasticity of Demand. Demand Forecasting: Need, Objectives and Methods (Brief) (8 hours)

Theory of Production: Meaning and Concept of Production, Factors of Production and production function. Fixed and Variable Factors, Law of Variable Proportion (Short Run Production Analysis), Law of Returns to a Scale (Long Run Production Analysis) through the use of ISOQUANTS. (6 hours)

MODULE-III

Cost Analysis & Price Output Decisions: Concept of Cost, Cost Function, Short Run Cost, Long Run Cost, Economies and Dis-economies of Scale. Explicit Cost and Implicit Cost, Private and Social Cost. Pricing Under Perfect Competition, Pricing Under Monopoly, Control of Monopoly, Price Discrimination, Pricing Under Monopolistic Competition, Pricing Under Oligopoly. (10 hours) Text Books:-

1. Dwivedi, D.N.; Managerial Economics, VPH

2. Chaturvedi, D.D. and S. L. Gupta; Business Economics, Brijwasi Publishers,

Reference Books:-

1. Mehta, P. L.; Managerial Economics, Sultan Chand & Sons

2. Koutsoviannis, A.; Modern Micro Economics, Macmillan Press Ltd.

3. Salvator, Dominick, Managerial Economics, McGraw-Hill Book Company

HU005 MACROECONOMIC

L T P Cr 4 0 0 4

Objectives:- To provide basic concepts on Macroeconomic variables, and its influence on business. MODULE-I

Concepts of Macro Economics and National Income: Determination Definitions importance, growth, limitations of macro-economics, macro-economic variables. Circular flow of income in two, three, four sector economy, relation between leakages and injections in circular flow. (8 hours)

National Income: Concepts, definition, methods of measurement, National income in India, problems in measurement of national income & precautions in estimation of national income. (8 hours)

MODULE-II

Macro Market Analysis: Theory of full employment and income: classical, modern (Keynesian) approach, consumption function, relationship between saving and consumption. Investment function, concept of marginal efficiency of capital and marginal efficiency of investment. National income determination in two, three and four sector models. Multiplier in two, three and four sectors model. (14 hours)

MODULE-III

Money Market: Functions and forms of money, demand for money-classical, Keynesian and Friedmanian approach, measures of money supply, quantity theory of money, inflation and deflation. (8 hours)

Equilibrium of Product and Money Market: The IS-LM model, product market and money market, derivation, shift. Equilibrium of IS-LM curve. Application of IS-LM model in monetary and fiscal policy. (8 hours)

Text Books:-

1. Dwivedi, D. N.; Macro Economics, TMH

2. Chaturvedi, D. D and Anand Mittal.; Business-Economics-II,), Brijwasi Book Distributors,

Reference Books:-

1. Mishra, S. K. and V. K. Puri; Modern Macro-Economics Theory, HPH

2. Edward Shapiro; Macro-Economics Analysis, TMH

BM005 INDIAN ECONOMY

31

L T P Cr 4 0 0 4

Objective:- To acquaint students with past, present and future of the Indian Economy and business environment in the country.

MODULE-I

Structure of Indian Economy: Concept of Economic Growth and Economic Development, Growth and Development.Basic Characteristics of Indian Economy Changes in structure of Indian Economy (Primary Sector, Secondary Sector & Tertiary Sector). Trends in National Income Occupational Distribution, Work Force Participation and Changes in Occupational Structure in India. Planning and Economic Development and Problems in Indian (14 hours)

MODULE-II

Planning and Economic Development and Problems in Indian Economy; Objective of Economic Planning in India, Tenth Five Year Plan. Industrial Policy-1991onwards, Disinvestments of Public Enterprises. (6 hours)

Economic Problems: Poverty, Inequality, Parallel Economy, Unemployment, Concentration of Economic Power, Balanced Regional Development, Low Capital Formation and Industrial Sickness. (8 hours)

MODULE-III

Indian Economy & Foreign Trade:Concept, Significance, Foreign Exchange Reserve, Balance of Payment, Balance of Trade, Export Import Policy (2002-2007), Foreign Exchange Management Act (FEMA), Export Promotion and Qualitative Restrictions. (8 hours)

Indian Economy – Emerging Issues WTO & Indian Economy (Emerging Areas), GATT, TRIMS, TRIPS, Foreign Direct Investment, Portfolio Investment & Foreign Institutional Investors. (8 hours)

Text Books:-

1. Dhingra, I.C.; Indian Economy, Sultan Chand,

2. Aggarwal, A.N., Indian Economy, Vishwa Prakashan,

Reference Books:-

1. Mishra, S.K. & V.K. Puri; Problems of Indian Economy, HPH

2. Datt, Ruddar; Sundhram, Indian Economy, Sultan Chand

MA007 BUSINESS STATISTICS

L T P Cr 3 1 2 4.5

Objectives:- To create understanding of statistical analysis for drawing inferences of population parameters on the basis of sample data .

MODULE-I

INTRODUCTION TO STATISTICS & PROBABILITY : Statistics – Definition, Types. Types of variables – Organising data - Descriptive Measures. Basic definitions and rules for probability, conditional probability independence of events, Baye's theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions. (10 hours)

SAMPLING DISTRIBUTION AND ESTIMATION: Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques.

Estimation: Point and Interval estimates for population parameters of large sample and small samples, determining the sample size. (10 hours)

MODULE-II

TESTING OF HYPOTHESIS: Meaning and Formulation of Hypothesis. Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test). (12 hours)

NON-PARAMETRIC METHODS: Chi-square test for single sample standard deviation. Chi-square tests for independence of attributes and goodness of fit. (6 hours)

MODULE-III

CORRELATION, REGRESSION, INDEX NUMERS AND TIME SERIES ANALYSIS: Correlation analysis, rank correlation estimation of regression line. Time series analysis: Variations in time series, trend analysis, cyclical variations, seasonal variations and irregular variations. Index Numbers – Laspeyre's, Paasche's and Fisher's Ideal index. (14 hours)

Laboratory Work: The students will be exposed to a Statistical Package & laboratory exercises will be designed around secondary economic, banking and stock exchange data.

Text Books:-

1. Levin R.I. and Rubin D.S., Statistics for Management, PHI

2. Srivatsava TN, Shailaja Rego, Statistics for Management, TMH.

3. Anand Sharma, Statistics for Management, Himalaya Publishing House

References

1. Anderson D.R., Sweeney D.J. and Williams T.A., Statistics for business and economics, Thomson (South – Western) Asia, Singapore

2. Aczel A.D. and Sounderpandian J., Complete Business Statistics, TMH

3. Prem S. Mann, Introductory Statistics, Wiley Student Edition.

HU007 VALUES & ETHICS IN BUSINESS

L T P Cr 3 1 0 3.5

Objectives:-To make the students realize the importance of values and ethics in business. The course provides a background to ethics as a prelude to learn the skills of ethical decision-making and then apply those skills to the real and current challenges of the profession.

MODULE-I

Introduction: Values-Concept, types and formation of values, ethics, values and behaviour, Values of Indian Managers, Ethics, development of ethics, ethical decision making and decision making process, relevance of ethics and values in business.

Management of Ethics: Management process and ethics, managerial performance, ethical issues, ethos of Vadanta in management, Hierarchism as an organizational value.(10 hours)

Corporate Social Responsibility & Consumer Protection: Corporate responsibility of business:

employees, consumers and community, Corporate Governance, Code of Corporate Governance, (7 hours) **MODULE-II**

Consumerism, Unethical Issues: Consumerism, unethical issues in sales, marketing and technology. (3 hours)

Understanding Progress, Results & Managing Transformation: Progress and Results definition, functions of progress, transformation, need for transformation, process & challenges of transformation. (6 hours)

Understanding Success: Definitions of success, Principles for competitive success, prerequisites to create blue print for success. Successful stories of business gurus. (6 hours)

MODULE-III

Knowledge and Wisdom: Meaning of knowledge and wisdom, difference between knowledge andwisdom, knowledge worker versus wisdom worker, concept of knowledge management and wisdom management, wisdom based management. (5 hours)

Stress Management: Meaning, sources and consequences of stress, stress management and detached involvement. (4 hours)

Concept of Dharma & Karma Yoga: Concept of Karama and kinds of Karam Yoga, Nishkam Karma, and Sakam Karma. Total quality management, Quality of life and quality of work life. (4 hours) *Text Books:*-

1. Kaur, Tripat; Values & Ethics in Management, Galgotia Publishers.

2. Chakraborty, S.K.; Human values for Managers

Reference Books:-

1. Chakraborty, S.K.; Ethics in Management: A Vedantic Perspective, OUP

MODULE-I

Multidisciplinary nature of environmental studies: Definition, scope and importance, Need for public awareness (2 lectures)

Renewable and non-renewable resources: Natural resources and associated problems- a) Forest resources : Use and over-exploitation, deforestation, case studies; Timber extraction, mining, dams and their effects on forest and tribal people; b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems; c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies; d) Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies; e) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources; Equitable use of resources for sustainable lifestyles. (8 hours)

Ecosystems: Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers; Energy flow in the ecosystem. Ecological succession.Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem: (a). Forest ecosystem; (b) Grassland ecosystem; (c) Desert ecosystem; (d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) (**6 hours**)

MODULE-II

Biodiversity and its conservation: Introduction – Definition : genetic, species and ecosystem diversity. Biogeographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, National and local levels. Inida as a megadiversity

nation. Hot-sports of biodiversity. Threats to biodiversity - habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity - In-situ and Ex-situ conservation of biodiversity. (8 hours)

Environmental Pollution: Definition, Cause, effects and control measures of :- Air pollution; Water pollution; Soil pollution; Marine pollution; Noise pollution; Thermal pollution; Nuclear hazards and solid waste Management : Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.. Pollution case studies. Diaster management floods, earthquake, cyclone and landslides. (8 hours)

MODULE-III

Social Issues and the Environment: From Unsustainable to Sustainable development; Urban problems related to energy; Water conservation, rain water harvesting, watershed management; Resettlement and rahabilitation of people; its problems and concerns. Case Studies;Environmental ethics : Issues and possible solutions;Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Wasteland reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act; Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation, Public awareness. (7 hours)

Human Population and the Environment: Population growth, variation among nations; Population explosion – Family Welfare Programme., Environment and human health; Human Rights. Value Education; HIV/AIDS, Women and Child Welfare, Role of Information Technology in Environment and 43 human health. (6 hours)

Field work : Visit to a local area to document environmental assets river/forest/ grassland/hill/ mountain; Visit to a local polluted site-Urban/Rural/Industrial/Agricultural; Study of common plants, insects, birds; Study of simple ecosystems-pond, river, hill slopes, etc. (**Field work = 5 hours**)

(**NOTE**: Syllabus for Environment Studies includes class room teaching and Field Work. The syllabus is divided into eight units covering 50 lectures. The first seven units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit eight is based on field activites which will be covered in five lecture hours and would provide student first hand knowledge on various local environmental aspects. Field experience is one of the most effective learning tools for environmental concerns. This moves out of the scope of the text book mode of teaching into the realm of real learning in the field, where the teacher merely acts as a catalyst to interpret what the student observes or discovers in his/her own environment. Field studies are as essential as class work and form an irreplaceable synergistic tool in the entire learning process.)

Text:-

1. Mhaskar A.K., Matter Hazardous, Techno-Science Publication

2. Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. Clark R.S., Marine Pollution, Clanderson Press Oxford

3. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication

4. Agarwal, K.C. Environmental Biology, Nidi Publ. Ltd. Bikaner.

Reference:-

1. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India, Email:mapin@icenet.net (R)

2. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. Environmental Encyclopedia, Jaico Publ. House, Mumabai,

3. De A.K., Environmental Chemistry, Wiley Eastern Ltd.