SYLLABUS B.A./B.Sc.

ANTHROPOLOGY

H. N. B. GARHWAL UNIVERSITY

(A CENTRAL UNIVERSITY) ANTHROPOLOGY

UNDER GRADUATE CURRICULUM

CHOICE BASED CREDIT SYSTEM

(Effective from Academic Session 2018-19)

Sem- ester	Course	Paper Code No.	Title of Paper	Credits	Marks
I	Compulsory	SHSS-ANTH-UG-C-101	Introduction to Anthropology	04	70+30
	Course	SHSS-ANTH-UG-C-102	Practical: Introduction of Anthropometry And Instrumentation.	02	70+30
	Ability Enhancement Course	AEC-EMC-101	English /MIL Communication	04	
II	Compulsory	SHSS-ANTH-UG-C-201	Social Anthropology	04	70+30
	Course	SHSS-ANTH-UG-C-202	Practical: Anthropometry-I Somatometry & Sometoscopy	02	70+30
	Ability Enhancement Course	AEC-EVS- 101	Environmental Science	04	
III	Compulsory	SHSS-ANTH-UG-C-301	Physical Anthropology	04	70+30
	Course	SHSS-ANTH-UG-C-302	Practical : Anthropometry-II Craniometry	02	70+30
	Skill Enhancement Course	SHSS-ANTH-UG-SE-303	Tribal Culture in India	02	70+30
IV	Compulsory	SHSS-ANTH-UG-C-401	Pre-historic Anthropology	04	70+30
	Course	SHSS-ANTH-UG-C-402	Practical: Prehistoric Tools & Material Culture	02	70+30
	Skill Enhancement Course	SHSS-ANTH-UG-SE-403	Anthropological Theory	02	70+30
V	Compulsory Course	SHSS-ANTH-UG-C-501	Practical: Serology, Dermatoglyphics & Osteology	02	70+30
	Skill Enhancement Course	SHSS-ANTH-UG-SE-502	Human Genetics	02	70+30
	Discipline Specific	SHSS-ANTH-UG-DSC-503 (A)	Paleoanthropology	04	70+30
	Elective (opt in one Paper)	SHSS-ANTH-UG-DSC-503 (B)	Ethnology of India	04	70+30
	Generic Elective	SHSS-ANTH-UG-GEN-504	Forensic Anthropology (For other Subject Students)	04	70+30
VI	Compulsory Course	SHSS-ANTH-UG-C-601	Practical: Dissertation/Project Report- based on Field Survey	02	70+30
	Skill Enhancement Course	SHSS-ANTH-UG-SE-602	Applied Anthropology	04	70+30
	Discipline Specific	SHSS-ANTH-UG-DSC-603 (A)	Research Methods	04	70+30
	Elective (opt in one Paper)	SHSS-ANTH-UG-DSC-603 (B)	Indian Anthropology	04	70+30
	Generic Elective	SHSS-ANTH-UG-GEN-604	Social Demography (For other Subject Students)	04	70+30

B.A / B.Sc – I SEMESTER

Compulsory Course: ANTH-101 Introduction to Anthropology

(Theory: Credits - 4)

- 1. Anthropology: Definition, Aims and Scope.
- 2. Origin of Anthropology: A Historical Perspective Formulatory Period, Convergent Period, Constructive Period and Critical Period.
- 3. Different Branches of Anthropology: Physical, Socio-Cultural, Archaeological and Linguistic Anthropology, their Inter-relationship with other Sciences.
- 4. Recent and Emerging Trends of Anthropology: Cognitive Anthropology, Gender Anthropology, Symbolism Anthropology, Nutrition Anthropology, Sports Anthropology, Ethnicity, Ethno Science, Field work and Ethnography, Psychological Anthropology.

Suggested Books:

- 1. Jurmain R., Kilgore L., Trevathan W. and Ciochon R.L.: Introduction to Physical Anthropology.
- 2. Krober A. L.: Anthropology.
- 3. Das B. M.: Outline of Physical Anthropology.
- 4. Evans Pritchard: Social Anthropology.
- 5. Jha Parfulla Ranjan, Barnwal D. and Jha R. K.: Anthropology Part I &II. (In Hindi)
- 6. Shukla B.R.K. and Rastogi: Laboratary Manual of Physical Anthropology.
- 7. Jha Makhan: An Introduction to Anthropological Thought. (In Hindi)

Compulsory Course: ANTH-102 Introduction to Anthropometry and Instrumentation (Practical: Credits - 2)

- 1. Anthropometry- Brief Historical Background, Division of Anthropometry, Type of Measurement and Applications of Anthropometry.
- 2. Instrumentation- Anthropometre Rod, Calipers, Osteometery Board, Goniometre, Parllelograph Crainiophore, Cubic Crainiophore, Diaptograph, Mandibulometre, Orbitometre, Palatometre Skinfold Caliper etc.

- 1. Das B. M & Rajan Deka. : Physical Anthropology Practical.
- 2. Shukla B.R.K. and Rastogi: Laboratary Manual of Physical Anthropology.
- 3. Agnihotri B. Practical Physical Anthropology.

B.A/B.Sc. – II SEMESTER

Compulsory Course: ANTH- 201

Social Anthropology (Theory: Credits - 4)

- 1. Social Anthropology: Definition, Aims, Objective & Scope and Relationship with other Social Sciences.
- 2. Basic Concept in Social Anthropology: Society, Group, Community, Status and Role, Caste and Class, Structure and Organization, Culture.
- 3. Family: Definition, Origin of Family, Characteristic of the Family, Forms of Family, Universality of Family.
- 4. Marriage: Definition, Type of Marriages, Prohibitions Regarding Marriage, Preferential Mating, Ways of Acquiring the Mates and Divorce.
- 5. Kinship: Definition, Types of Kinship, Categories of Kinship, Kinship Terminology, Kinship Usage, Descent Principal and Group.
- 6. Economic Organization: Meaning and Scope, Main Stages of Economic Development, Economic Mechanism in Primitive Society, Gift and Hospitality, Trade and Exchange.
- 7. Political Organization: Definition of Primitive Law, Justice in Primitive Society, Social Sanction, Social Control and Government, State and State less System.
- 8. Religion and Magic: Definition and Differences, Theories Regarding Origin of Religion, Magic, Totem and Taboos.

Suggested Books:

- 1. Majumadar D.M., Madan T. N.: An Introduction to Social Anthropology. (In Hindi and English)
- 2. Herskovits M. J.: Cultural Anthropology.
- 3. Roger Keesing: An Introduction of Cultural Anthropology.
- 4. Jha P. R., Barnwal D. and Jha R. K.: Anthropology Part I.
- 5. Mishar Uma Sankar and Hasnen Nadeem: Social Cultural Anthropology. (In Hindi)
- 6. Monaghan John and Peter J.: Social and Cultural Anthropology.
- 7. Evans Pritchard: Social Anthropology.

Compulsory Course: ANTH- 202 Anthropometry- I: Sometometry & Somatoscopy (Practical: Credits - 2)

- 1. **Somatometry:** Height Vertex, Height Tragus, Height Acromion, Height Radiale, Height Stylion, Height Dactylion, Sitting Height Vertex, Bi-acromial Diameter, Hand Length, Hand Breadth, Foot Length & Breadth, Body Weight, Maximum Head Length, Maximum Head Breadth, Nasal Length, Nasal Breadth, Cephalic Index, Nasal Index, Facial Index, Body Mass Index (BMI)
- 2. **Somatoscopy:** Hair Form, Nose Form, Eyes Form, Lips Form.

- 1. Das B. M & Rajan Deka. : Physical Anthropology Practical.
- 2. Shukla B.R.K. and Rastogi: Laboratary Manual of Physical Anthropology.
- **3.** Agnihotri B.: Practical Physical Anthropology.

B.A/B.Sc. - III SEMESTER

Compulsory Course: ANTH- 301

Physical Anthropology (Theory: Credits - 4)

- 1. Biological/Physical Anthropology: Definition, Aims, Objective and Scope.
- 2. Organic Evaluation: Lamarckism and Darwinism.
- 3. Man's Place in Animal Kingdom: Taxonomy.
- 4. Comparative Anatomy (Man and Anthropoid Apes): Dentition, Skull, Limb Bone & Girdles.
- 5. Mendel's Law of Inheritance.
- 6. Cell: Its Structure and Division.
- 7. Simple and Single Factor Inheritance and Sex-Linkage.
- 8. Characteristics and Distribution of Caucasoid, Mongoloid and Negroid.
- 9. Elementary Blood Group and Finger Prints.

Suggested Books:

- 1. Craig Stanford, John S. Allen and Susan C. Anton: Biological Anthropology (2nd Edition).
- 2. John Buettner-Janusch: Origins of Man.
- 3. Simon E. L.: Primate Evolution: An Introduction to Man's Place in nature.
- 4. Das B. M.: Outline of Physical Anthropology.
- 5. Shukla B.R.K. and Rastogi: Physical Anthropology & Human Genetics. (In Hindi & English)
- 6. Vadhya N.K. & Pandey: Bological Anthropology.
- 7. Choubey Ramesh: Physical Anthropology. (In Hindi)
- 8. Jha Parfulla Rajan, Barnwal D. and Jha R. K.: Anthroplogy Part II. (In Hindi)

Compulsory Course: ANTH- 302 Anthropometry- II: Craniometry (Practical: Credits - 2)

 Craniometry: Maximum Cranial Length, Maximum Cranial Breadth, Glabella-Inion Length, Nasion-Inion Length, Nasion-Basion Length, Bi-Maxillary Breadth, Nasal Length, Nasal Breadth Cranial Index, Cranial Nasal Index, Minimum & Maximum Frontal Breadth, Circumference of Skull, Length of Foramen Magnum, Upper Facial Height, Maximum Bizygomatic Breadth, Bimaxillary Breadth, Biogonial Breadth, Mandibular Length or Length of Lower Zaw.

- 1. Das, B. M & Rajan Deka. : Physical Anthropology Practical.
- 2. B.R.K.Shukla and Rastogi: Laboratary Manual of Physical Anthropology.
- 3. Agnihotri B. Practical Physical Anthropology.

Skill Enhancement Course: ANTH - 303 Tribal Culture in India (Theory: Credits - 4)

- 1. Tribe: Definition, Concept of Tribes and General Characteristics of Tribes,
- 2. Tribes in India: Classification Geographical, Linguistic, Racial and Economic Based.
- 3. Social Life of Indian Tribes: Marriage, Family and Kinship.
- 4. The Problems of Indian Tribes And Tribal Welfare, Constitutional Safeguard & provisions,
- 5. Ethnographic Profiles of Uttarakhand Tribes: Bhotia, Jaunsari, Boxa, Tharu and Raji.
- 6. Tribes, Forest and Forest Policies, Development Policies, Tribal Displacement and Problems of Rehabilitation, Tribal Movements.
- 7. Role of Anthropology in Tribal development.

Suggested Books:

- 1. Mukharje, R.Nath : Samajik Manavsastra ki Ruprekha.
- 2. Nadeem Husnain: Tribal India (In Hindi and English)
- 3. Srinivas, M.N: India Social Structure.
- 4. Upadhaya V.S & Gaya Pandey : Janjatiya Vikas
- 5. Chauhan V.S: Bharat ki Janjatiyan: Uttarakhand ke Vishesh Sandarbh Mein.

B.A./B.Sc - IV SEMESTER Compulsory Course: ANTH-401 Pre-historic Anthropology (Theory: Credits - 4)

- 1. Prehistory: Meaning and Scope, Different types of Archaeology Classical, Historical, Protohistoric and Pre historic Archaeology.
- 2. Dating method: Absolute and Relative Dating Method.
- 3. The Great Ice Age: Stratigraphic and other evidence of Ice-Age, River, Moraines and Estate Fluctuations. Alpine and Himalayan Glaciations and Pluviations.
- 4. The Stone Age and Tools, Typology and Technology: Paleolithic, Mesolithic and Neolithic Age, Chalcolithic Age, Iron Age, Bronze Age.
- 5. Pre-historic Dimension of Indian Culture: Paleolithic, Mesolithic, Neolithic Culture and Chalcolithic Cultures, Megalithic Culture.
- 6. Indus Valley Civilization and Harrapan Civilization.

- 1. Allchin: The Birth of Indian Civilization.
- 2. Miles Burkitt: Old Stone Age.
- 3. Bhattacharya D. K.: An Outline of Indian Prehistory.
- 4. Bhattacharya D. K.: Pre-historic Archaeology.
- 5. Choubey Ramesh: Puratatvik Manav Vigyan.
- 6. Husnain Nadeem: General Anthropology. (In Hindi and English)
- 7. Majumdar D.N., Gopal Saran: Pragitihas. (In Hindi)

Compulsory Course: ANTH-402 Pre-historic Tools & Material Culture (Practical: Credits - 2)

- 1. Prehistoric Tools: Identification, Scientific Sketching and Description with Type and Technology of the following Tools: Chopper/Chopping Tool, Hand-axe and Cleaver Tool, Side Scraper, End Scraper, Borer, Burin, Flakes and Blades, Microliths.
- 2. Material Culture: Detail will be given by Department.

Skill Enhancement Course: ANTH- 403 Anthropological Theory (Theory: Credits - 4)

- 1. Evolution Theory: Bachofen. McLennan, Morgon, Frazer, and Taylor.
- 2. Diffusionism: British Diffusionism, German Diffusionism, American Diffusionism.
- 3. Functionalism and Structural-Functionalism: Malinowasli and Radcliffe Brown.
- 4. Structuralism: Claude Levi-Strauss and Edmund Leach.
- 5. Symbolism: Nadal and Firth
- 6. Culture and Personality Approach.

Suggested Books:

- 1. Clifford Geertz: The Interpretation of Cultures: Selected Essays.
- 2. Harris Marvin: Rise of Anthropological Theory.
- 3. Applebaum H.A.: Perspectives in Cultural Anthropology.
- 4. Barnard A.: History and Theory in Anthropology.
- 5. McGee R.J. and Warms R.L.: Anthropological Theories: An Introductory History.
- 6. Moore M. and Sanders T.: Anthropology in Theory: Issues in Epistemology.
- 7. Jha Makhan: An Introduction to Anthropological Thought.(In Hindi)
- 8. Misrh Uma.S. Anthropological Thought.(In Hindi)
- 9. Pandey Gaya: History of Anthropological Thought. (In Hindi)

B.A/B.Sc. – V SEMESTER Compulsory Course: ANTH-501 Serology, Dermatoglyphics & Osteology (Practical: Credits - 2)

NOTE: Students should be acquainted to undertake the following Tests or Observations and Record the Results in the Laboratory note book:

- **1. ABO and Rh Blood groupings**: Students should be trained in determining ABO and Rh Blood Groups of at least Five Subjects following Standard Method.
- **2. Dermatoglyphics**: Candidates should be trained in taking the Prints of Palm and Fingertips of at least Five Subjects.

3. Osteology: Identification of Bones- Skull Bones (Frontal, Parietal, Occipital, Temporal, Maxilla, Zygoma, and Mandible). Long Bones with Sex Determination (Hummers, Radius, Ulna, Femur, Tibia, Fibula), Scapula, Clavicle.

Suggested Books:

- 1. Das, B. M & Rajan Deka. : Physical Anthropology Practical.
- 2. Shukla B.R.K. and Rastogi: Laboratary Manual of Physical Anthropology.
- 3. Agnihotri B.: Practical Physical Anthropology.

Skill Enhancement Course: ANTH- 502 Human Genetics (Theory: Credits - 4)

- 1. Principles of Human Genetics: Concepts, Scope and Field of Human Genetics.
- 2. Genetics in Man: Mendelian Inheritance: Mendel's law and its Application to Man; Modes of Inheritance of Qualitative Mendelian Traits in Man-Autosomal Dominant, Autosomal Recessive and Sex-linked Inheritance. Lethal Gene.
- 3. Normal Human Karyotype in Mitosis and Meiosis, Chromosomal Aberration Autosomal and Gonosomal Anomalies.
- 4. Heredity: Method of Studying-Twin Method, Biology of Twining Diagnosis of Zygosity, Pedigree Method, Heredity and Environment.
- 5. Mutation, Spontaneous and Induced, Chromosomal and Somatic.
- 6. ABO and Rh Blood group, Dermatoglyphics.
- 7. Application of Human Genetics, Genetics Screening, Genetic Counseling and Genetic Engineering.

Suggested Books:

- 1. Das B. M.: Outline of Physical Anthropology
- 2. Shukla B.R.K. and Rastogi: Physical Anthropology & Human Genetics. (In Hindi & English)
- 3. Vadhya N.K. & Pandey : Biological Anthropology.
- 4. Choubey Ramesh: Physical Anthropology. (In Hindi)
- 5. Shukla B.R.K. and Rastogi: Human Genetics and Ethnic Variation (In Hindi & English)
- 6. Winchester: Human Genetics.
- 7. Singh U.P.: Human Genetics. (In Hindi)

Discipline Specific Elective: ANTH – 503 (A) Paleoanthropology (Theory: Credits - 4)

- 1. Paleoanthropology: Definition and Scope
- 2. Dating Method and Geological Time Scale.
- 3. Fossils and Fossilization.
- 4. Fossil Primates and Apes: Prosimian Primate, Propliopithicus, Dryopithicus, Ramapithicus/ Sivapithicus, Kenyapithicus, Australopithicus Africanus and Paranthropus Robustus, Homo Habilis and its Characteristics and Distribution.

- 5. Homo Erectus and Homo Erectus Pekinensis: Distribution, Characteristics and Comparison, Solo Man, Heidelberg Jaw.
- 6. Homo sapiens neanderthalensis: Characteristics and Distribution, Classical and Progressive, Cro-magnon, Rhodesian Man.

- 1. Das B.M.: Outline of Physical Anthropology
- 2. Shukla B.R.K and Rastogi: Physical Anthropology and Genetics
- 3. Ghosh and Ghosh: Introduction to Physical Anthropology
- 4. Nath Surindar: Finger Print Identification.
- 5. Shukla B.R.K and Rastogi: Human Evolution. (In Hindi & English)
- 6. Singh U.P.: Human Genetics. (In Hindi)
- 7. Vadhya N.K. & Pandey: Bological Anthropology.
- 8. Choubey Ramesh: Physical Anthropology. (In Hindi)
- 9. Shukla B.R.K. and Rastogi: Human Genetics and Ethnic Variation. (In Hindi & English)

Discipline Specific Elective: ANTH- 503 (B) Ethnology of India (Theory: Credits - 4)

- 1. Ethnology: Definition, Ethnic Affinity of the Prehistoric Indian Population as Evident from the Skeletal Remains.
- 2. Ethnic Affinity of Indian Population-Pattern of Classification- Risley, Guha, Hutton, Haddon Classification, its Merits and Limitation.
- 3. Race and Races of World: Scientific Meaning of Race, Characteristics of Race, Origin of Race, Racism, Criteria of Racial Classification Morphological and Genetical.
- 4. Linguistic Distribution vis-a-vis the Ethnic Group of Indian Population.
- 5. Ethnic Composition of Himalayan Population.

Suggested Books:

- 1. Sarkar R.M: Fundamentals of Physical Anthropology.
- 2. Ghosh and Ghosh: Introduction to Physical Anthropology.
- 3. Das B.M.: Outline of Physical Anthropology.
- 4. Mukherjee R.N.: Introduction of Social Anthropology. (in Hindi)
- 5. Sharma A.N.: Indian Anthropology.(In Hindi)

Generic Elective Course: ANTH- 504 Forensic Anthropology (Theory: Credits - 4)

- 1. Introduction to Forensic Anthropology: Definition, Brief History, Scope, Applications and Integration of Forensic Anthropology.
- 2. Basic Human Skeletal Biology, Identification of Human and Non-Human Skeletal Remains, Ancestry, Age, Sex and Stature Estimation from Bones, Discovery and Techniques for Recovering Skeletonized Human Remains.

- 3. Personal Identification, Complete and Partial Identification, Methods of Identification in Living Persons: Somatometry, Somatoscopy, Occupational Marks, Scars, Bite Marks, Tattoo Marks, Fingerprints, Footprints, Lip Prints, Nails, Handwriting, Deformities and Others.
- 4. Serology: Identification and Individualization of Bloodstain, Urine, Semen and Saliva. Patterns of Bloodstains.
- 5. Individualization: Forensic Odontology-Tooth Structure and Growth, Bite Marks, Facial Reconstruction, DNA Profiling.

- 1. Sarkar R.M.: Fundamentals of Physical Anthropology.
- 2. Ghosh and Ghosh: Introduction to Physical Anthropology.
- 3. Das B.M.: Outline of Physical Anthropology.
- 4. Nath Surendra: Forensic Anthropology.
- 5. Jha & Jha: Anthropology Part II.(In Hindi & English)
- 6. Nath Surendra. : Identification of Finger Prints.

B.A/B.Sc. - VI SEMESTER Compulsory Course: ANTH- 601 Field / Project Report: Based on Field Survey (Practical: Credits - 2)

- 1. The Student shall be required to make Empirical Investigation on a SC/ST, Other Backward Class and Backward Areas or Villages. The Field Work should be of minimum 15 days outside from Campus/ College under the Supervision of a Teacher and Staff.
- 2. Project Report based on Bio-Social Anthropological Study.
- 3. The Report should be Prepared by Research Techniques and Methods.
- 4. They shall submit a typed Project Report.

Skill Enhancement Course: ANTH – 602 Applied Anthropology (Theory: Credits - 4)

- 1. Applied Anthropology: Definition and Scope, Historical Background.
- 2. Anthropological Museums and Museology in India.
- 3. Anthropology and Tourism, Sacred Geography.
- 4. Anthropology and SC/ST Policy, Constitutional Safeguards and Implementation.
- 5. Applications of Physical Anthropology: Genetic Screening, Genetic Counseling, Genetic Engineering, Sports Anthropology.
- 6. Role of Anthropology: Water Management, Disaster Management, Rural Development and Planning, Environment, Health & Hygiene.

- 1. Hasnain Nadeem: Indian Anthropology. (In Hindi)
- 2. Sharma A.N.: Inadian Anthropology. (In Hindi)
- 3. Hasnain Nadeem: Unifying Anthropology.
- 4. Jha P. R., Barnwal D. and Jha R. K.: Anthropology Part I& II.
- 5. Shukla B.R.K and Rastogi: Physical Anthropology and Genetics

Discipline Specific Elective: ANTH- 603 (A) Research Methods (Theory: Credits - 4)

- 1. Research Method: Basic Concepts.
- 2. Hypothesis: Meaning, Characteristics, Source, Importance & Limitation.
- 3. Research Design: Exploratory, Descriptive and Experimental.
- 4. Sources of Data Collection and Technique: Observation, Interview, Schedule, Questionnaire, Sampling.
- 5. Elementary Statistics: Tabulation, Bar & Graph, Mean, Mode, Median and Standard Deviation.
- 6. Basic Components of Computers: Application of Hardware & Software Introduction to MS-Office (MS-Word, MS-Excel, MS-Power Point).
- 7. Report Writing.

Suggested Books:

- 1. Routlege & Paul Kagan: Notes and Queries in Anthropology.
- 2. H.Russel Bernard.: Research Methods in Cultural Anthropology.
- 3. Bruce L. Berg: Qualitative Research Methods for the Social Sciences.
- 4. Srivastava. V. K. (Ed.).: Methodology and Fieldwork.
- **5.** Sarantabos S.: Social Research.
- **6.** Goode & Hatt: Research Methods in Social Sciences.
- 7. Mukharjee R.N.: Social Research and Statistics.(In Hindi)
- **8.** Agarwal G.K & Pandey S.S.: Social Research and Statistics. (In Hindi)

Discipline Specific Elective: ANTH- 603 (B) Indian Anthropology (Theory: Credits - 4)

- 1. Growth and Development of Indian Anthropology.
- 2. Crises and Issues in Indian Anthropology.
- 3. Based on Indian Social System: Background, Purusharth, Ashram, Rina, and Karma.
- 4. Social Cultural Change in India: Sanskritzation & Westernization, Little & Great Tradition Universalization & Parochialization, Sacred Complex, Dominant Caste.
- 5. Nature-Man-Sprit Complex, Tribe Caste Continuum.

- 1. Hasnain Nadeem: Indian Anthropology. (In Hindi)
- 2. Sharma A.N.: Indian Anthropology. (In Hindi)
- 3. Hasnain Nadeem: Unifying Anthropology.
- 4. Mukharjee R.N.: Introduction of Social Anthropology.(In Hindi)

Generic Elective Course: ANTH-604 Social Demography (Theory: Credits - 4)

- 1- Nature and Importance of Demography, Relationship between Demography and anthropology.
- 2- Source of Demographic Data- Census, Registration and Survey Data in India, Population Size and Composition: Sex Ratio and Population pyramids.
- 3- Components of Demographic Process- Fertility, mortality, migration. Tribal Demography in India- its Structure and Growth.
- 4- Theory of Population Malthusian, Optimum, Social-Cultural and Demographic Transition.

- 1. Bogue, D: Principal of Demography.
- 2. Speigilman: Introduction to Demography.
- 3. Jain, S.P.: A Status Study of Population Research Demography.
- 4. Boshers, J.M.: Population Pressure in Social System.
- 5. Hans Raj: Population Studies with Special Reference to India.